



ORBIT - Online Repository of Birkbeck Institutional Theses

Enabling Open Access to Birkbeck's Research Degree output

Open Access Policy in the UK : from neoliberalism to the commons

<https://eprints.bbk.ac.uk/id/eprint/40377/>

Version: Full Version

Citation: Lawson, Stuart Andrew (2019) Open Access Policy in the UK : from neoliberalism to the commons. [Thesis] (Unpublished)

© 2020 The Author(s)

All material available through ORBIT is protected by intellectual property law, including copyright law.

Any use made of the contents should comply with the relevant law.

[Deposit Guide](#)
Contact: [email](#)

Open Access Policy in the UK: From Neoliberalism to the Commons

Stuart Andrew Lawson

Doctoral thesis submitted for completion of a PhD in English and Humanities at Birkbeck, University of London

2019

This work is licensed under a Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>). This excludes Figure 4.1, which is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license (<https://creativecommons.org/licenses/by-sa/3.0/deed.en>).

I, Stuart Lawson, confirm that the work presented in this thesis is my own.

Signed:

Acknowledgements

The text of this thesis contains edited excerpts from the following prior publications:

- Lawson, Stuart. 2015. 'The Politics of Open Access', PhD proposal, Birkbeck, University of London
<<https://doi.org/10.6084/m9.figshare.1494587>>
- Lawson, Stuart. 2017. 'Access, Ethics and Piracy', *Insights*, 30(1): 25–30
<<https://doi.org/10.1629/uksg.333>>
- Lawson, Stuart. Forthcoming [2019]. 'Public Libraries and Knowledge Politics', in *Old Traditions and New Technologies: The Pasts, Presents, and Futures of Open Scholarly Communication*, ed. by Martin Eve and Jonathan Gray (Cambridge, MA: MIT Press)
- Lawson, Stuart, Jonathan Gray, and Michele Mauri. 2016. 'Opening the Black Box of Scholarly Communication Funding: A Public Data Infrastructure for Financial Flows in Academic Publishing', *Open Library of Humanities*, 2(1) <<https://doi.org/10.16995/olh.72>>

This research was supported by the Jisc Collections Studentship Award, which was awarded by Birkbeck, University of London and co-funded by the School of Arts at Birkbeck in conjunction with Jisc Collections. I'd like to thank everyone at Jisc who has helped support my work, especially Lorraine Estelle, without whom I might not have had to opportunity to do a PhD.

My supervisors, Martin Eve and Caroline Edwards, have been incredibly supportive throughout. Thanks to both of you for all the guidance and encouragement. Additional thanks to everyone at the School of Arts at Birkbeck, in particular Anthony Shepherd for answering all of my questions and making the formal processes go so smoothly.

Thank you to each of the authors cited in this thesis who made their work open access.

Finally, thank you to Jamie, for everything.

Abstract

This thesis makes a contribution to the knowledge of open access through a historically and theoretically informed account of contemporary open access policy in the UK (2010–15). It critiques existing policy by revealing the influence of neoliberal ideology on its creation, and proposes a commons-based approach as an alternative. The historical context in Chapters 2 and 3 shows that access to knowledge has undergone numerous changes over the centuries and the current push to increase access to research, and political controversies around this idea, are part of a long tradition. The exploration of the origins and meanings of ‘openness’ in Chapter 4 enriches the understanding of open access as a concept and makes possible a more nuanced critique of specific instantiations of open access in later chapters. The theoretical heart of the thesis is Chapter 5, in which neoliberalism is analysed with a particular focus on neoliberal conceptions of liberty and openness. The subsequent examination of neoliberal higher education in Chapter 6 is therefore informed by a thorough grounding in the ideology that underlies policymaking in the neoliberal era. This understanding then acts as invaluable context for the analysis of the UK’s open access policy in Chapter 7. By highlighting the neoliberal aspects of open access policy, the political tensions within open access advocacy are shown to have real effects on the way that open access is unfolding. Finally, Chapter 8 proposes the commons as a useful theoretical model for conceptualising a future scholarly publishing ecosystem that is free from neoliberal ideology. An argument is made that a commons-based open access policy is possible, though must be carefully constructed with close attention paid to the power relations that exist between different scholarly communities.

Acronyms and Abbreviations

AAM – Author Accepted Manuscript

AGORA – Access to Global Online Research on Agriculture

AHRC – Arts and Humanities Research Council

APC – Article Processing Charge

BBSRC – Biotechnology and Biological Sciences Research Council

BIS – Department for Business, Innovation and Skills

BOAI – Budapest Open Access Initiative

BSD – Berkeley Software Distribution

CC BY – Creative Commons Attribution license

CERN – European Organization for Nuclear Research

COAF – Charity Open Access Fund

CPR – Common-Pool Resources

DfE – Department for the Economy (Northern Ireland)

DNS – Domain Name System

DOAJ – Directory of Open Access Journals

DORA – Declaration on Research Assessment

EPSRC – Engineering and Physical Sciences Research Council

ESCI – Emerging Sources Citation Index

ESRC – Economic and Social Research Council

FLOSS – Free/Libre Open Source Software

F/OSS – Free and Open Source Software

FTP – File Transfer Protocol

GPL – General Public License

HEFCE – Higher Education Funding Council for England

HEFCW – Higher Education Funding Council for Wales

HINARI – Health InterNetwork Access to Research Initiative

IAB – Internet Advisory Board

IETF – Internet Engineering Task Force

IMF – International Monetary Fund

LEO – Longitudinal Education Outcome

LIS – Library and Information Studies

MLA – Modern Language Association

MOOC – Massively Open Online Course

MRC – Medical Research Council

NERC – Natural Environment Research Council

NIH – National Institutes of Health (US)

OA – Open Access

OCSDnet – Open and Collaborative Science in Development Network

OfS – Office for Students

OKFN – Open Knowledge Foundation

OLH – Open Library of Humanities

OPEC – Organization of Petroleum Exporting Countries

OSI – Open Systems Interconnection

PFI – Private Finance Initiative

QR – Quality-Related Research

RAE – Research Assessment Exercise

RCUK – Research Councils UK

Redalyc – Red de Revistas Científicas de América Latina y El Caribe, España y Portugal

REF – Research Excellence Framework

REG – Research Excellence Grant

SciELO – Scientific Electronic Library Online

SCWG – Scholarly Commons Working Group

SFC – Scottish Funding Council

SPARC – Scholarly Publishing and Academic Resources Coalition

STFC – Science and Technology Facilities Council

TCP/IP – Transmission Control Protocol and Internet Protocol

UCU – University and College Union

UKRI – UK Research and Innovation

UK-SCL – UK Scholarly Communications Licence

UUK – Universities UK

WTO – World Trade Organisation

Contents

Acknowledgements	..... 3
Abstract	..... 4
Acronyms and Abbreviations	..... 5
Chapter 1. Introduction	..... 10
Chapter 2. Access to Knowledge: Academic Publishing	..... 24
Chapter 3. Access to Knowledge: Universities and Libraries	..... 47
Chapter 4. Understanding Openness	..... 65
Chapter 5. Neoliberalism, Liberty, and Openness	..... 92
Chapter 6. Neoliberal Higher Education	..... 133
Chapter 7. Open Access Policy in the UK	..... 155
Chapter 8. The Commons as an Alternative Policy Framework	..... 185
Chapter 9. Conclusion	..... 235
References	..... 239

“We live in capitalism. Its power seems inescapable. So did the divine right of kings.”

— Ursula K. Le Guin

Chapter 1. Introduction

Open access means making scholarly research freely available online for people to read with minimal restrictions on access and reuse (Eve 2014: 1; Suber 2012: 4).¹ This simple definition masks a wealth of complexity. Indeed, open access is a concept that has had a notable impact on the way scholarly research is communicated and provoked a wide variety of responses from different stakeholders. In particular, the political aspects of open access, although often foregrounded in discussions regarding its intent, are under-theorized in the academic literature. This thesis is an attempt to address the political implications of open access and the implementation of open access policy. As will be made clear, open access has garnered support from both neoliberal ideologues and social justice activists (Eve 2017a: 55; Wickham and Vincent 2013: 6; see also Tkacz 2012: 399; Weller 2014: 156–59). Therefore the focus of this thesis is on exploring the extent to which open access policy has been suffused with neoliberalism – how and why the ‘neoliberalisation’ of open access can be said to have occurred, explaining why this is important, and what steps may be taken as counter measures to work towards a non-neoliberal open access policy.

This chapter will introduce the topic and summarise the overall thesis. It begins with a brief overview of open access, discussing its origins and purposes. Next follows an initial discussion of the politics surrounding open access, highlighting the complexity of this area of study and demonstrating the need for detailed research. Finally, an outline of the thesis explains the structure of this text and summarises its contents.

What is open access?

The term *open access* (OA) has been used in different contexts to describe the level of access to various resources, such as access to land or telecommunications infrastructure (Davis 2009; Mair 2016; Newman 2016; UK Government [n.d.]). As

1 The term ‘open access’ is used throughout this thesis without a hyphen, for instance, journals are referred to as ‘open access journals’ rather than ‘open-access journals’.

stated above, in this thesis – and throughout the literature on scholarly communication – open access is used in reference to scholarly research. In general, the term is restricted to formal written scholarly texts such as academic books, journal articles, and theses. The related activities of making other educational and scholarly materials openly available may be called *open education* or *open data*. Chapter 4 will discuss the concept of openness and its various permutations at length. Before this discussion, it is important to acknowledge the long history of scholarly research being shared both among communities of scholars and with wider publics.² This is why Chapter 2 explores the role of *publishing* in sharing scholarly knowledge, giving further definitions and background history of scholarly publishing. Indeed, in some ways open access can be seen as a reaction against, and positioned in opposition to, traditional academic publishing.

The ‘traditional’ academic publishing practices that were in place during the print era largely revolved around the formats of printed books and journals. Since the open access policy examined later in this thesis predominantly affects journals rather than books, the background context provided in early chapters also focuses largely on journals. As will be made clear, academic journals may have retained certain continuities over the centuries but they also adapted as the working practices of scholars changed. In particular, the increased presence of for-profit corporations within the academic publishing sector in the post-war period coincided with economic and political developments within the higher education sector, not least the ‘publish or perish’ culture that is itself linked to the objectives of research funders (Fyfe et al. 2017; see also Bence and Oppenheim 2005). For some (though not all) open access advocates, the presence of private companies that generate large profits from subscription scholarly publishing is itself a central motivation for promoting open access as an alternative publishing model (for instance see Lawson 2017, Monbiot 2011, Priego and Fiormonte 2018). The tension between whether or not the profit-making issue is important is key to understanding the divergent approaches to open access policy analysed in Chapters 7 and 8. Before delving further in the politics around open access, some description of the concept will help to ground the later discussion.

2 When speaking of ‘public access’ to scholarship, there are many different publics for which open access could be beneficial. A non-exhaustive list of these publics includes medical charities, parliamentary researchers, small businesses, community organisations, lifelong students, citizen scientists, etc. (see ElSabry 2017).

Open access, as a specific form of publishing and sharing scholarship, became possible with the advent of digital technologies. As such, elements of what was later to become known as open access can be traced back to the earliest days of the internet, as academics used the internet to share data and communicate via digital networks (for example by email) long before the web was created. The history of the internet is inseparable from its relationship to academia; the original ARPANET, a precursor to today's internet, was created to share information between networked computers (Kelty 2008: 139) at a time when computers were so large and expensive that researchers at established research institutions such as universities made up a significant proportion of users (see Chapter 4 for more on this history). Over time, as internet-based technologies became more widely adopted, the traditional print publishing industry began to publish in digital formats as well. This led to new industry practices such as selling online access to subscription journals in bundles known as 'big deals', in which an institution pays a single fee to a publisher in order to access its entire journal portfolio (Wellcome Trust 2003: 6). This is a pertinent example of how the web enables a variety of different practices, not only ones involving a greater degree of openness.

The term *open access* was originally defined in 2002 by the Budapest Open Access Initiative (BOAI), which opened with the memorable phrase: 'An old tradition and a new technology have converged to make possible an unprecedented public good' (Chan et al. 2002). This statement highlights the role of technology as an enabler while simultaneously proclaiming the ethical and social nature of open access. The Budapest Declaration was followed by two further declarations – the Bethesda Statement on Open Access Publishing (Brown et al. 2003), and the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003). These three declarations – referred to by Peter Suber as the 'BBB definition' (Suber 2012: 7) – helped to define open access as a 'movement'³ and provide a common touchstone to conceptualise it. The BOAI was formulated at a meeting organised by the Open Society Institute, which was named by its founder, the billionaire philanthropist George Soros, after the work of Karl Popper (Peters and Roberts 2011: 36). As Chapter 5 will make clear, Popper's conception of the 'open society'

3 Use of the term 'movement' to describe the actions of 'open' advocates and practitioners is further discussed by Kelty (2008: 98, 113–15) who sees its birth in 1998. The term is not used much in this thesis because it implies a conceptual and political coherence that is not always present; to speak of open *communities* may often be more useful.

was written as a defence of liberal democracy (Popper 2003 [1945], 2003a [1945a]). While the connection between Popper's ideas and current open access communities is not a straightforwardly causal one, it does warrant further attention, especially given the influential role that Popper played within early neoliberal theory.

As of 2018, the two most well-established pathways to open access are journals and repositories. Open access journals are academic journals that do not have any price barrier to access them, so anyone with access to the internet can view them online. This pathway is referred to as 'gold' open access. There is no inherent difference between open access or subscription journals other than two key criteria: no payment is required from the reader, and extra permissions for users are granted by open licenses.⁴ Publishing open access still costs money so these journals need to be funded by other means – there are a variety of funding models such as institutional grants, consortial funding, or article processing charges (APCs).⁵ APCs are fees which publishers sometimes charge to an author, their institution, or their funder in order to make an article open access. It is thought that a majority of full open access journals do not currently charge APCs, but it may be the case that a majority of open access articles are in fact published in APC-charging journals (Crawford 2017: 1), because the volume of articles varies significantly between different journals. Journals can be further classified into either 'full open access' journals or 'hybrid open access' journals. Full open access journals are entirely open access and do not publish any content that requires payment to access. Hybrid journals, on the other hand, are subscription journals in which it is possible to pay an APC to make an individual article open access. Therefore some articles in these journals are openly available whereas others are not. The issues that arise within a mixed economy of different payment models, especially regarding hybrid journals, have important policy implications as will become clear in later chapters.

The other pathway to open access is to deposit copies of works in subject or institutional repositories, which is known as 'green' open access. Repositories can be regarded as a form of digital archive, so depositing work in them is often called 'self-archiving'. Frequently this involves depositing versions of works other than the final published version ('version of record'), because publishers sometimes reserve the sole right to distribute that version. This means that the version deposited in a

4 See Chapter 4 for more on open licenses.

5 Some independent journals are run at low-cost by volunteers.

repository may have to be either a preprint, which is the original text of an article before (or at the time of) submission to a journal, or a postprint,⁶ which is the version of an article that has undergone peer review and been accepted for publication but not yet formatted for publication.

In the years following the BOAI, open access has gradually become a mainstream part of the global scholarly communication system, with open access options available from all major academic publishers. As of 2018, there are over 11,000 open access journals listed in the Directory of Open Access Journals (DOAJ 2018), over 3,000 institutional repositories and 300 subject repositories around the world (OpenDOAR 2018a), and an estimated 8 million articles are available open access (Piwowar et al. 2018).⁷ This growth has been driven to a large extent by top-down policies and mandates from governments, research funders, and higher education institutions (Laakso 2014: 26–28; see also Prosser 2007).

There are multiple reasons why open access can be seen as useful or necessary, so there are a number of different arguments that supporters of open access use to advocate for it. These arguments often focus on transparency and accountability of spending public money on research, such as what Suber (2003a) calls the ‘taxpayer argument’ for open access (see also Davis 2009; Suber 2012). In addition, the benefits to individual researchers are frequently raised, such as the well-researched citation advantage that is apparently afforded to those who publish open access (Swan 2010; Ottaviani 2016).⁸ Open access can also be seen as part of a broader move towards openness within academia, linked to activities referred to as open science or open scholarship (see Chapter 4; see also Veletsianos and Kimmons

6 In the terminology of HEFCE’s open access policy (see Chapter 7) these are known as Author Accepted Manuscripts (AAMs).

7 The article by Piwowar et al. uses a total figure of 19 million, but this is contestable because it includes articles that are ‘free to read’ on publisher websites and not openly licensed (later chapters in this thesis explore the significance of open licensing). When including only articles in repositories or in gold/hybrid open access journals, Piwowar et al. put the figure at 8 million. For more on the extent and growth of open access repositories and journals see Archambault et al. (2014), Crawford (2017, 2018), Laakso (2014: 54–55), Laakso et al. (2011), Martín-Martín et al. (2018), and Ware & Mabe (2015: 88–112).

8 Well over a hundred articles have now been published on the existence (or otherwise) of a citation advantage to open access. It may be one of the least interesting questions to ask about open access, but for the statistically-minded it is one of the easiest to design an experiment to measure. The question will not be addressed any further in this thesis beyond the words of Piwowar et al. (2018): ‘while several factors can affect the observed differences in citation rates, and causation remains difficult to establish, the fact remains that scholars are much more likely to read and cite papers to which they have access than those that they cannot obtain’.

2012). Prosser (2007) has highlighted some of the political drivers for open access at a public policy level, such as quality assessment and the demands of the so-called ‘knowledge economy’. Advocacy groups that focus on open access, such as the Scholarly Publishing and Academic Resources Coalition (SPARC), sometimes take a pragmatic approach and seize on the variety of available arguments – including ones rooted in neoliberalism (see below) – in order to tailor their message towards different audiences. For many advocates, however, one of the primary reasons for supporting open access is that of social justice,⁹ to help overcome the strong North to South bias in the flow of academic information and to create a more equitable global system of participation in the scholarly conversation (Adcock and Fottrell 2008; Veletsianos and Kimmons 2012: 172; Heller and Gaede 2016: 4–7; Jardine, Garvey, and Cho 2017: 469; Arunachalam 2017). There has been some success in this regard, as open access has flourished in parts of the global South, especially Latin America (Alperin 2014: 17). However, the *kind* of open access that is unfolding globally – and, in particular, the economics of how open access is funded – all too often fails to adequately address the extant power imbalances within scholarly discourse, and thus may be perpetuating or even exacerbating existing inequalities. Chapter 8 will return to this issue in depth. First, the next section will begin to flesh out the political implications of open access, and of the UK’s open access policy in particular.

Politics

With the growth in the quantity of openly-available research, and the fact that open access has become embedded in the policies of many governments and research funders, the politics surrounding open access have become increasingly important (Šimukovič 2016a). However, this topic has not received enough detailed attention in the academic literature (Veletsianos and Kimmons 2012). The gap is beginning to be addressed, such as by recent PhD theses taking theoretical and political approaches towards open access by Gareth Johnson (2017), Sam Moore (forthcoming), and Elena Šimukovič (forthcoming);¹⁰ edited collections by Schöpfel and Herb (2018) and Eve & Gray (forthcoming [2019]); and some articles offering

9 The term ‘social justice’ is defined in the following section.

10 See also Haider (2008).

particular political perspectives such as Marxist critique of open access (Golumbia 2016, Winn 2015) and an exploration of the congruence of open access with feminist theory (Craig, Turcotte, and Coombe 2011). But despite work such as this, there is still a relative lack of critical scholarly attention towards contemporary publication practices. This is consistent with a general failing within the academy to take a sufficiently reflexive stance towards its own means of production. As Neylon has claimed, ‘As a community of researchers we are at our worst when we fail to rigorously apply the tools we use to critically analyse our research claims, *to our own processes*’ (Neylon 2017, emphasis mine). Some scholars and researchers who publish academic work have indeed turned their gaze upon the publication processes that underpin the scholarly enterprise, although this more often takes place outside formal publication channels themselves, such as in blog posts, or the occasional briefing paper (for example, Fyfe et al. 2017). Of course, there are scholarly disciplines that directly concern themselves, in part, with academic publishing, notably library and information studies (LIS) and publishing studies. However, research in this area has tended to focus more on quantitative and economic aspects rather than socio-political aspects (Rodrigues, Taga, and Passos 2016).¹¹ This is unfortunate, because the qualitative approaches found in the humanities have much to offer in helping to better understand our contemporary situation: ‘the humanities can offer added value to the open publishing movement, by limiting the rhetoric of efficiency, and at the same time discussing the meaning of “openness” in a more critical perspective than is normally adopted by scholars of the “hard sciences,” who generally support this publishing practice’ (Fiormonte, Numerico, and Tomasi 2015: 89; see also Bacevic and Muellerleile 2017).¹² Perhaps Weller et al. (2017: 76) are correct to argue that ‘it is necessary for a field to gain momentum for it to commence from a set of beliefs and assumptions about the potential impact’. If so,

11 In this content analysis of journal articles about open access, ‘growth’, ‘economics’, and ‘technology’ comprise 52% of the corpus, compared to 5.5% for ‘legal and ethical aspects’ and 1.4% for ‘philosophy, values and principles’.

12 It can be argued that if there is an ethical imperative for humanities scholarship to engage with publics – ‘if we want our scholarship to be consequential and respond to problems in our shared and contingent worlds, it must be part of a public conversation’ (Bammer and Boetcher Joeres 2015a: 8) – then open access for humanities research can directly support this engagement (see Belfiore 2013; Eve 2014). Swauger (2017) goes further, to argue that ‘Our scholarly communication system is a representation of what and who we value as an academic community, and open access is one way to help democratize that system to include people who have historically been devalued through their exclusion’.

open access is now established enough for rigorous research to critique the ‘beliefs and assumptions’ behind open access advocacy.

Unsurprisingly, some of the more nuanced critiques of openness in recent years have come from authors situated in the global South who are wary of the potential for open practices to become just one more form of power over marginalised populations (Albornoz 2017; Mlambo 2018; OCSDnet 2017). Much of this critique stems from the widespread adoption of APCs by publishers and the economic barrier this creates in order to make work open access with many ‘prestigious’ journals (see Lawson 2015; Peterson, Emmett, and Greenberg 2013; Suber 2003). As Bali argues, being open for *access* is not equal to being open for *participation* (Bali 2017). Ostrom’s work on governance of the commons (see Chapter 8) has demonstrated that for successful commons governance, participation in the rule-making process is a necessity. This is an important reminder that those in the global North wishing to work towards a more equitable system of scholarly communication cannot do so by imposing a particular solution on the world. The implications of this point, especially regarding funding models for open access, form a core part of the analysis of open access policy given in Chapters 7 and 8.

This thesis aims to make explicit the political tensions within openness. These have long been visible within free and open source software (F/OSS) communities, where F/OSS has been adopted both by corporations to enhance their position in the market, and also as a revolutionary tool by activists advocating a radical anticapitalist position (Coleman 2012: 194). As openness has been adopted within academia, however, such tensions have tended to be glossed over. Writing about open education, Bayne, Knox, and Ross (2015) have argued that it ‘has acquired a sheen of naturalized common sense and legitimacy, and formed what seems to be a post-political space of apparent consensus’. Contrary to this stance, this thesis is predicated on the idea that openness *is* political and a site of contestation. Furthermore, the primary tension that is explored herein is between open access as a political project aligned to social justice, and as an instrument of neoliberalism.

Social justice ‘does not have a unified or static meaning’ (Saltman 2009: 1), but can be said to concern relations of power within society at both macro- and micro-levels, from political systems to individual social relationships (Duff et al. 2013: 324–25; Gewirtz 1998: 469–71). It is frequently framed in terms of resistance to oppression, such as in Young’s (1990) ‘fives faces of oppression’: cultural

imperialism, marginalization, systemic violence, exploitation, and powerlessness. Within library and information studies (LIS), social justice has recently been receiving growing attention from those who are opposed to the view that librarianship is 'neutral' or 'apolitical', and instead encourage taking an explicitly political stance against structural inequity (see Cooke and Sweeney 2017). It has also become an important part of discussions around the direction that scholarly communication is taking (Baildon 2018; Bolick et al. 2017; Heller and Gaede 2016; Inefuku and Roh 2016; Roh 2017).

In this thesis, neoliberalism is understood as a political project to embed market-based logic into all social relations. In other words, it makes people think, and act, as if they are themselves capital. The analysis of neoliberalism in Chapter 5 examines how this ideology came to be so influential in public policy. By the time open access was being developed, the institutions and practices of academia had been 'neoliberalised' to a significant degree, which is why Holmwood (2013) sees open access as already embedded within a neoliberal policy context. The relation between open access and neoliberalism has been frequently discussed (Eve 2017a; Ghamandi 2017; Holmwood 2013; Johnson 2017, 2018; Kansa 2014; Kember 2014).¹³ However, this thesis is the first significant piece of scholarship to situate open access within a neoliberalised public policy context. It is also an attempt to address the lack of historical perspective on open access, as identified by one thorough literature review (Frosio 2014: 10–11).

To contribute to a critical understanding of open access and its politics, the main theoretical question asked in this thesis is: to what extent can the UK's open access policy be characterised as neoliberal? By examining the policies closely, it is possible to see which aspects of them align with neoliberal ideology. To remain vigilant to 'the power of neoliberalism to absorb and neutralize potentially counter-hegemonic forces and ideas' (Bieling, in Plehwe, Walpen, and Neunhöffer 2006: 22), it is important to understand and recognise the neoliberalisation process underway within open access – to identify the co-option of open access by neoliberalism and the forces of capital (Eve 2017a; Lawson, Sanders, and Smith 2015). The reason for limiting the geographical scope of the thesis to the UK is to allow for a focused analysis. It is important to note that higher education is a devolved matter in the UK

13 See also Tkacz (2015: 177–82) on the relationship between neoliberalism and openness more broadly.

so the governments of Scotland, Wales, and Northern Ireland have their own policies. Many of the processes of neoliberalisation within UK higher education outlined in Chapter 6 involve policies that only apply to England. However, when it comes to open access, the UK's national research funders are highly co-ordinated, so both the RCUK and HEFCE¹⁴ policies also apply to the devolved nations. In Chapter 7, which contains the core analysis of specific open access policies, the analysis concentrates on the period 2010–15. Once again, this limitation is to allow for a level of focus that would not be possible if a longer time frame was considered.

Open access has been promoted by those holding such varied political positions that it is not possible to identify it solely with one political perspective. For instance, in the UK open access has been encouraged by the Coalition and Conservative governments – and has even been supported by UKIP (Gordon 2017), signalling the extent to which it can operate as a cross-party consensus – but also by humanities researchers such as those working within the Radical Open Access Collective, who argue that ‘one of the chief motivations for open access has been the opposition to the profit margins and business models of large, commercial publishers’, and ‘scholarly publishing should be a not-for-profit concern rather than something primarily oriented towards profit for shareholders’ (Adema and Moore 2018: 6; see also Pooley 2017). My own perspective, as the epigraph to this thesis signals, correlates with what Eve has termed the ‘left-spectrum’ of open access, meaning ‘those OA advocates who wish to eradicate the profit motive from scholarly communications’ (2017: 65, note 3). In doing so, I recognise that this position is but one of many possible perspectives, as Gary Hall (2012: 36) states:

It should also be borne in mind that there is nothing inherently radical, emancipatory, oppositional, or even politically or culturally progressive about open access. The politics of open access depend on the decisions that are made in relation to it, the specific tactics and strategies that are adopted, the particular conjunctions of time, situation and context in which such practices, actions and activities take place, and the networks, relationships and flows of culture, community, society and economics they encourage, mobilize and make possible. Open access publishing is thus not

14 These acronyms stand for Research Councils UK and the Higher Education Funding Council for England (see Chapter 6).

necessarily a mode of left resistance.

In this thesis, therefore, I argue that the malleable nature of open access, as indicated by the way that existing open access policy has been developed under neoliberalism to reflect market logic, means that an open access rooted in equity and social justice is possible but must be actively constructed.

Methodology and research question

The methodological approach used in this thesis is a critique of open access policy as it has been constructed under a neoliberalised higher education sector. It achieves this by examining several different histories – of higher education, of neoliberalism, and the commons – and synthesising these histories in a way that has not been done before. This historical analysis serves to enrich our understanding of open access policy. The central research question to be answered by this thesis is: to what extent has the UK's open access policy been suffused with neoliberalism? This question is answered in Chapter 7, which is the culmination of the preceding chapters, and makes use of selected primary documents for policy analysis. A more precise way to phrase the question is: by bringing open access into the realm of government policy, to what extent has the openness of open access been co-opted by the openness of neoliberalism? By making explicit the political tensions within openness in this way, this thesis will hopefully serve to temper the zeal that on occasion makes open access advocacy lack a critical appreciation of the complexity of its political context. Perhaps the most significant contribution to knowledge made by this thesis is in Chapter 8, in which an alternative approach to open access policy that attempts to circumvent its ongoing neoliberalisation is posited. The most important ideas to this analysis are that of the commons – in particular, the work of Ostrom, who did so much to introduce rigour to the study of the commons – and postcolonial critique. It is therefore in Chapters 7 and 8 that the primary intellectual contribution to knowledge of this thesis is made. In doing so, the people who undertake the labour of scholarly work are not forgotten, because as Feldman and Sandoval (2018: 227) argue, alternatives to neoliberal hegemony must 'focus on actively resisting individualisation and competition, and instead creating work cultures based on care, co-operation and solidarity'.

The main topic of enquiry in this thesis is open access policy, but in order to approach this subject in a rigorous way, numerous academic disciplines are drawn upon, in order to engage in a thorough understanding of the social and political context surrounding open access. Indeed, certain topics lend themselves well to interdisciplinary research; as Galloway writes, ‘Discipline-hopping is a necessity when it comes to complicated sociotechnical topics’ (Galloway 2004: xxiii). Interdisciplinary research has also proven to be insightful when it comes to some of the previous work that has informed the perspectives herein, most notably Elinor Ostrom’s work on the commons, where she argued that ‘combining disciplines and pooling knowledge [is] the only way to arrive at deeper understandings of effective commons management’ (Hess and Ostrom 2011: 6; see also Hess and Ostrom 2004: 25–26). Given the heterogeneous nature of the sources and disciplines consulted, and the aforementioned paucity of research on the politics of open access, the literature search for this thesis could not rely on keyword searches of online databases¹⁵ or detailed reading of key texts in the field. Rather, it required using the ‘snowball technique’ (Ridley 2012: 56); reading widely across the various subject areas and teasing out connections between them by following chains of citations. Defining boundaries of what to read, when using this strategy, is not straightforward, so care has been taken to avoid ‘scope creep’ and ensure that all cited sources help to address the research question stated above. The chosen approach is reflected in the structure of the thesis – critical review of secondary literature is embedded throughout the text as the narrative progresses through different subject areas.

In light of the wide scope of this thesis, the following outline describes each chapter in turn and shows how they combine to form a single narrative through which a deeper understanding of open access policy is achieved.

Outline of thesis

The first group of chapters (2–4) build on the introductory description of open access given above and place it within a broader social and historical context. This is achieved by examining the two components – *openness* and *access* – as distinct

15 Indeed, using keyword searches of online databases confirmed the limited range of sources directly addressing the central concerns of this thesis, signalling a gap in the literature to be addressed.

concepts with separate but related histories. In Chapter 2, the longer history of access to knowledge is explored through an overview of the history of academic publishing. The chapter also begins to address some issues in the contemporary scholarly communication domain.

Chapter 3 continues with the historical approach by discussing the history of access to knowledge through two kinds of educational institutions: universities and libraries. By drawing on these institutional histories, it is possible to see more clearly how and why the current situation occurred. Together, Chapters 2 and 3 form the historical backdrop to understanding contemporary open access. This ensures that the later discussion is grounded in a historical basis, allowing for an empirically-informed theoretical enquiry to occur.

In Chapter 4, the concept of openness is analysed. The emergence of this particular meaning of the word ‘openness’, as a distinct social, cultural, and legal phenomenon, is found in the free and open source software (F/OSS) movement. As the chapter makes clear, the political ramifications of F/OSS are complex, which foreshadows the political debates within open access communities.

The next two chapters turn to political theory. Chapter 5 gives an overview of the history, theory, and practice of neoliberalism. It focuses, in particular, on how the concept of *liberty* or freedom is viewed within neoliberal ideology, which has important implications for later discussions about neoliberal higher education. This chapter is longer than its predecessors, in order to do justice to the complexity of neoliberalism as a concept. The concluding section regarding *closure* of political futures can be read alongside Chapter 4, to begin to tease out some of the issues and contradictions within ideologies of openness. The competing visions of openness offered by the ‘open’ communities studied in Chapter 4, and by neoliberal theorists in Chapter 5, will be returned to later in the thesis when considering the issue of a ‘neoliberalised’ open access.

Building on the understanding of neoliberalism gained in the previous chapter, Chapter 6 focuses on contemporary higher education and research policy and the neoliberal political context in which it exists. By looking at the neoliberalisation of higher education, it analyses the ways in which higher education policy and governance has been influenced by – indeed, saturated with – neoliberal ideas. An increasing commitment to neoliberal values over the past 30 years has resulted in a higher education sector in which policies and practices are deeply embedded in a

market context.

The next two chapters are directly concerned with open access policy. Chapter 7 gives an overview of the UK's open access policy during the period in question (2010–15) and places it within the context of a neoliberalised academy. The central question of this thesis – to what extent can current UK open access policy be considered neoliberal? – is directly addressed, and the complexity surrounding any judgement on this topic made clear. The conclusion reached here is that since it is not possible at the present historical moment to act outside of neoliberal capitalism, open access is to some extent necessarily tinged with neoliberalism. However, this is not an inherent facet of open access, but simply a reflection of current social reality. Under alternative social and political contexts, open access could form part of an emancipatory academia.

To provide a counter-narrative of possible alternative futures for open access policy, Chapter 8 turns to the commons. In this chapter, the idea of the commons is explored as a fruitful avenue for imagining different directions for policy and practice. As the existence of co-operative and commons-based modes of organization demonstrates, it is possible to build non-market forms of organization even within a market society. So although it is not feasible to build a utopian scholarly communications system from scratch – not least because different communities may imagine very different utopias – it is still possible to work collectively towards a form of scholarly communication that minimises the effects of neoliberalism.

Finally, Chapter 9 concludes the thesis with a summary of what has been achieved through the critical analysis undertaken here. The main contribution to knowledge is to situate open access within a neoliberalised public policy context by critically examining existing open access policy, and formulating steps to take towards an alternative, commons-based policy approach.

Chapter 2. Access to Knowledge: Academic Publishing

This chapter examines social, technical, and political developments in academic publishing, from the early modern period until the present, to demonstrate how a ‘closed’ system of publishing has evolved that excludes many people from accessing scholarly texts. Publishing practices within academia help to determine who has access to knowledge and how that access is mediated. The process of making printed works available has traditionally been mediated by publishers, who continue to fulfil this role despite the shift from print to digital formats and other technological developments that have changed the ways in which information is shared, as discussed below. In this chapter, the commercialisation of the academic publishing industry is found to have played an important role in the transformation of publishing practices.¹⁶ In addition, the ties between academic labour, publishing practices, and career progression are shown to be key factors determining the ways in which the academic publishing system has been constructed. The final three sections of this chapter focus on the multiple barriers to accessing research publications, the role of academic libraries in facilitating access, and the piratical practices that some people have resorted to in order to overcome these barriers and access research. In response to these developments, other critics of the direction academic publishing has taken propose the idea of open access publishing as an alternative to both traditional publishing and piracy.

Before progressing any further, a few definitions are needed to give clarity to the discussion. The term *scholarly communication* is an umbrella term encompassing a wide range of activities; the Association of College & Research Libraries (ACRL) defines it as “the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use” (Association of College & Research Libraries 2003). This definition is useful because it excludes the more ephemeral and private forms of communication between scholars – such as social media activity, and written letters or emails between individuals – and concentrates on

16 As discussed below, even in its early years academic publishing was not a purely non-commercial enterprise, but the balance between commercial and non-commercial interests tipped significantly in the mid-twentieth century.

those forms which are typically made available by academic publishers and collected by academic libraries.¹⁷ On the other hand, it still leaves a great deal of ambiguity as to exactly what ‘counts’ when we are talking about scholarly communication – for example, a presentation of research at a conference may be a public performance that communicates verbally to a small number of people, or it may also be written down, disseminated in a journal or collection of conference papers, and preserved in an archive. Since the ACRL is a library association perhaps it is not surprising that its definition is geared towards the kind of research objects that are usually collected by libraries – namely, published texts in the form of books and journal articles.

In attempting to define one term, the preceding paragraph has used a number of other terms which themselves need clarifying. Even the term *publishing* is not straightforward. Bhaskar’s theory of publishing, for instance, goes beyond the surface notion of ‘making public’ – which, in the web era, no longer requires specialist intermediaries – and narrows it down to a core group of activities: filtering, framing, and amplification (Bhaskar 2013: 103–36). The filtering or selection of content, and the amplification of that content in order to find a public audience, are functions that would be familiar to a contemporary journal publisher (see Morris et al. 2013: 2–4). As to the *content*, i.e. what it is that is being published, for the purposes of this chapter the term *research* will be used to refer to the content of the written texts that are published.¹⁸ In the current terminology of research assessment,¹⁹ texts that are written by researchers and published by professional

17 For a counterpoint, Borgman’s definition is of ‘how scholars in any field [...] use and disseminate information through formal *and informal* channels’ (Borgman 1990: 10, emphasis mine). In fact, the following line of the ACRL definition goes on to say: ‘The system includes both formal means of communication, such as publication in peer-reviewed journals, and informal channels, such as electronic listservs’. However, the rest of the document focuses entirely on formal communication, so this sentence is inconsistent with how ACRL appears to see scholarly communication in practice. The ACRL definition is particularly useful for this thesis because it is the definition used – though interpreted in a very expansive way – by Hess and Ostrom (2004: 3–4) in their work on understanding scholarly communication as a commons, which is important for Chapter 8. The term ‘grey literature’ is sometimes used as a catch-all term to describe informal publications.

18 The term *scholarship* is sometimes used as a synonym for research, and so the terms *academic publishing* and *scholarly publishing* are used interchangeably. But since some universities define scholarship as ‘keeping up with the literature’, and ‘research’ as the writing of said literature, in this chapter the terms ‘research’ and ‘academic publishing’ are used throughout.

19 See Chapter 6 for more on the UK’s official research assessment process, the Research Excellence Framework (REF).

publishers as books or journal articles are often referred to as *research outputs* (see REF 2011: 13). Since the results that researchers generate in their work take many forms, a wide variety of research objects can be considered as research outputs, such as data, software, or the creative outputs of arts disciplines. In this chapter, the main object of discussion is *research that is published in the form of books or journal articles*. For most academic disciplines these published texts are the primary research outputs,²⁰ and are of central importance to both the economy of prestige that governs academic careers (see below) and also the political and economic aspects of scholarly communication that come to the fore in discussions about open access.

Even within the narrow scope of academic book and journal publishing, this is still a fairly heterogeneous area. Book publishing alone can be regarded as having multiple differentiated fields (Thompson 2005: 37–40), such as academic book publishing, which is primarily concerned with monographs (though edited collections also fall into this category), and textbook or educational book publishing. Further categories including reference, legal, and professional publishing also play a vital role for higher education and research. Trade publishing – featuring accessible writing for a non-specialist audience – is also important for some areas of scholarship, particularly in humanities disciplines such as history. There can be significant overlap between these different areas of book publishing. However, since the focus of this thesis is on access to research, this chapter will largely be restricted to discussing academic book and journal publishing because they are the primary venues for original research in most disciplines. The next section outlines the evolution of academic journal publishing in Europe from its formation in the early modern period to a form very close to one we would recognise today by the early twentieth century.

The beginnings of academic journal publishing

The ‘Republic of Letters’ is the term historians use to refer to the way scholars in the early modern period corresponded by letter to exchange knowledge. An intellectual community was formed by this network of individual written documents (Goodman 1996: 136–38), although in-person interactions also remained crucial for forming

20 With important exceptions such as conference papers in computer science or the practice-based outputs of arts disciplines.

these networks and establishing trust (Lux and Cook 1998). The change from one-to-one communications into a more public method of exchanging ideas was formalised with the invention of the academic journal.²¹ *Journal des Sçavans* and *Philosophical Transactions of the Royal Society*, both first published in 1665 (Fyfe, McDougall-Waters, and Moxham 2015; Gross, Harmon, and Reidy 2002: vii, 31; Kronick 1976: v), allowed scholars to exchange ideas and, in particular, the results of scientific experiments. Since scholarly publishing has always been reliant on the printing technologies of its time, the production of these first journals was a labour-intensive process:

Periodicals had been typeset by hand, printed on hand-presses on hand-made paper, and folded and stitched by hand. During the nineteenth century all of these processes were mechanized, and the unit costs of paper, printing and, eventually, typesetting fell. During the same period, the reproduction of images was transformed by innovations, from lithography to photography.

(Fyfe, McDougall-Waters, and Moxham 2015)

Thus the political-economic changes affecting the rest of society throughout the period of industrialisation had significant impact on the production of scholarly texts. As Fyfe et al. indicate, commercial relationships were already present in the publishing process, so the later commercialisation of the industry (see below) did not appear from nowhere. Indeed, business models for funding publications saw some experimentation early on – the first commercially published scientific journal, *Observations sur la physique, sur l’histoire naturelle et sur les arts*, was founded in France in 1771 by François Rozier. After ‘observing the way scientific communication was passing from the reading of books by individuals to the giving of papers by scientific society members’, Rozier was able to successfully make a profit by offering monthly subscriptions to a journal that reported on the latest scientific developments to anyone willing and able to pay the price, rather than only to society members (Brock and Meadows 1998: 89–90).

21 Printed books had already been around for over 200 years by this point, following the introduction of printing to Europe in the fifteenth century based on technologies originating in ancient China (Bhaskar 2013: 121–25; Johns 1998: 329–30), but the relatively rapid speed of periodical publishing allows a more conversation-like form of communication, as discussed below.

Throughout the nineteenth century a growing number of scientific periodicals were published, containing original research papers, general scientific news, and reports from scholarly societies, including translations from other European journals. By one estimate, in Britain almost two-thirds of these journals were published commercially (Brock 1980: 95), but this claim may be a result of the slippery distinction between ‘publisher’ and ‘printer’ (see Bhaskar 2013: 23–24) because it does not align with most histories of this period. For example, Baldwin states that in the late nineteenth century ‘most scientific journals were affiliated with a scientific society’ (Baldwin 2015: 37; see also Cox 2002: 273), and, according to a history of the publisher Taylor & Francis, prior to the Second World War the firm had ‘been unusual in publishing a leading science journal commercially’ (Brock and Meadows 1998: 193). The fact that learned society journals were usually *printed* by separate commercial firms, at a time when the businesses of printing and publishing were less distinct than they are today,²² could account for the ambiguity around the extent of commercial publishing in the nineteenth century. Recent historical research by Fyfe confirms that for the Royal Society’s *Philosophical Transactions*, during the eighteenth and nineteenth centuries publishing the journal was a costly service provided as a benefit to the society members rather than a source of profit (Fyfe 2015).

Structural and financial developments in academic publishing often follow social changes within academic culture.²³ For instance, the growth of discipline-specific journals correlates to the birth of disciplines themselves; as researchers organised themselves into more narrowly-defined groups, they launched publications to host their work. This can be seen clearly in the US, where journal publishing boomed in the final quarter of the nineteenth century with a spate of discipline-specific journals published by those universities that had become oriented towards producing original research (Geiger 2015: 330–32).

In the nineteenth century, as science was evolving into a more professionalised

22 Indeed, in the early twenty-first century, many publishers now not only outsource printing to other commercial firms but use print-on-demand methods so that they can offer print copies for sale without needing to hold any stock themselves (see Wilson-Higgins 2017).

23 An example of how intertwined the social circles of people involved in universities, scholarly societies, and publishers/printers were in nineteenth-century London is that Richard Taylor, founder of Taylor & Francis, was the printer for both the Royal Society, of which his brother was a member, and the newly-formed University of London, where he was a council member and treasurer (Brock and Meadows 1998: 44–58).

endeavour with proliferating specialisms (Daunton 2005), scholarly journals played an important role as a public site for the exchange of ideas and the presentation of scientific knowledge to the wider world. Baldwin argues that journals such as *Nature* (launched in 1869) fulfilled this role ‘with the added benefit of making letters and observations available to many readers at the same time [...] a forum where individuals interested in the advancement of scientific knowledge could talk to one another and discuss the intellectual and social issues affecting scientific work’ (Baldwin 2015: 8). In a sense, this function was similar to the idea of the older ‘republic of letters’ but enhanced and made into a more public process by then-modern technologies and publishing practices. The speed of publication was also important, with prominent scientists sending letters and abstracts to the multidisciplinary *Nature* more regularly than original research articles, in order to ensure rapid dissemination and to claim priority for their ideas (Baldwin 2015: 53–55, 64–65; 2015a). Pietsch (2013: 29) has argued that the political context within which researchers lived and worked was a key driver for the structural changes in research practice:

Emerging in Germany in the early nineteenth century, the Humboldtian notion of scientific research²⁴ had long been resisted in the ancient English universities. But by the 1880s this was beginning to change. The rise of the chemical and electrical industries in Britain had created a demand for scientific innovation and educated labour. Aware of Germany’s growing industrial might, British politicians and men of business called upon universities to style themselves more closely after German institutions. The increasing complexity of all the disciplines meant they were no longer as accessible to the amateur or dilettante as they previously had been; laboratories, publications, specialised knowledge, equipment and skills were all becoming more and more important. Not only did science now require investments that only large organisations such as universities could afford, but the changing politics of knowledge meant that these were investments that universities could not afford to neglect.

24 The ‘Humboldtian’ model of higher education, named after Wilhelm von Humboldt, is one in which there is a holistic combination of teaching and research. The model also placed an increased emphasis on publication (Wellmon and Pipe 2017).

In the late-nineteenth and early-twentieth centuries science became more professionalised, as the growth in the university sector (see Chapter 3) allowed an increasing number of scientists to be employed on a full-time basis rather than conducting their research as a personal interest alongside other work (Fyfe et al. 2017). At the same time, scientific research was internationalised, including aspects of scholarly communication such as international conferences (see Crawford 1992: 35–41). Despite this more outward-looking professional environment, Baldwin has asserted that researchers during this period tended to focus their publication strategies in a national context and submit work primarily to the most prominent journals in their home nation (Baldwin 2015: 121). This was made easier in the settler colonies (see Chapter 3, note 62) by the foundation of journals and societies dedicated to local and regional research, ‘functioning as crucial sites for the construction of colonial identity among the growing middle classes’ (Pietsch 2013: 24; see also Dubow 2006: 35–78). By the 1930s, on the other hand, the contributors to *Nature* had become highly geographically diverse (Baldwin 2015: 131) – although the extent to which this is representative of other journals is unclear – thus facilitating communication of the results of research beyond the country in which it was undertaken.²⁵ These national and international publication strategies of scientists were not necessarily replicated by researchers working in other disciplines; much work in the humanities is focused on local culture so it is more likely to appear in publications devoted to particular localities, and to be written in the languages of those localities (see Flowerdew and Yi 2009).²⁶

Thus by the beginning of the twentieth century, academic journals held an established role in the culture of research, and the business of publishing them had matured into a mixed ecology of commercial and non-commercial interests. The following section shows how the increased political attention towards the results of research led to a change in the balance between these interests.

25 Pietsch has shown how ‘personal networks were [...] crucial to bringing settler research to publication in Britain’, as prior to ‘the advent of airmail in the late 1930s’, contacts in Britain helped researchers in Australia, New Zealand, and Canada with the publication process at British journals (Pietsch 2013: 112–13).

26 Ossenblok, Engels, and Sivertsen (2012) have shown that the use of English as a publication language for humanities authors based in some non-English speaking European countries is on the rise.

Post-war commercialisation

In 1946, the British government met with publishers directly to stimulate the introduction of new scientific journal titles (Cahn 1994: 37). This intervention was a taste of what was to follow. A rapid expansion of journal publishing occurred after the Second World War, driven largely by US government spending on military research and development during the cold war (Cox 2002: 273; Morris et al. 2013: 9; Oreskes 2014: 18–22; Wolfe 2013: 21–27). For-profit publishers only started to play a major role in scholarly journal publishing from the 1950s onwards, to meet the demand generated by increased funding for research and the concurrent rise in number of published articles. Robert Maxwell's Pergamon Press played a key role in the commercialisation of academic journal publishing (Cox 2002). As well as founding their own new journals, commercial publishers also took on publishing duties on behalf of many scholarly societies (see Fyfe, McDougall-Waters, and Moxham 2015), deepening their existing relationships (see above). According to Brock and Meadows (1998: 193), the increasing influence of commercial firms was met with some scepticism:

The new journals often filled genuine gaps in the literature, for the learned societies were slow to cater for new specialities as they arose. New societies were formed, but usually only after the speciality had established itself. In the meantime, a commercial publisher could step in and produce an appropriate journal. Despite this advantage, suspicion of commercial journals died hard. Many scientists feared that they lowered standards, were not really essential, and cost too much. In consequence, from 1950 onwards scientists, paradoxically, assisted in the foundation of commercial journals while continuing to worry about the consequences.

The increasing commercialisation of academic publishing during this period corresponded with an escalating concentration in the market. It is typical for a media or communications industry to move towards a situation whereby a handful of commercial entities dominate the market (see Wu 2010), and as Thompson (2005: 2) states regarding book publishing in general:

Since the 1970s the book publishing industry has been the focus of intensive merger and acquisitions activity, and the structures of ownership and control in some sectors of the industry now bear little resemblance to the world of publishing that existed forty or fifty years ago. Today a handful of large conglomerates, many operating in an international and increasingly global arena, wield enormous power in the publishing world and harbour a growing number of formerly independent imprints under their corporate umbrellas.

Thompson argues that *academic* book publishing has not seen such marked concentration²⁷ due to the important role of university presses (Thomson 2005: 8, 61). These organisations are usually a formal part of the university, and so share in the parent institution's scholarly focus – although this is not always reflected in legal structures; Oxford University Press was only granted tax-exempt status due to a charitable mission in 1976, several centuries after its founding (Bhaskar 2013: 150). University presses form a diverse group which are numerous in the US but rarer in the UK, where Cambridge University Press, founded in the 1580s (McKitterick 1992: 4), and Oxford University Press, founded in the mid-seventeenth century (Peacey 2013: 51–77), are vastly larger than any others.²⁸

In academic *journal* publishing, however, the market concentration has been particularly extreme with four large corporations – Elsevier,²⁹ Wiley, Springer, and Taylor & Francis – taking over 50% of the market share, increasing to over 70% in some subject areas (Larivière, Haustein, and Mongeon 2015; see also Didegah and Gazni 2011). In science and technology, Elsevier's share alone may account for over 40% of published journal articles (Office of Fair Trading 2002: 6). This 'oligopoly'

27 Educational textbook and professional publishing, on the other hand, *has* seen greater concentration (Thompson 2005: 60), but that is a different publishing field and not the subject being investigated here. There may have been a degree consolidation in the academic publishing industry subsequent to Thompson's work, as Eve (2014: 36) notes: 'Bloomsbury Academic is a humanities and social science publisher that seems to be using its trade success to buy up other academic publishers who are in the black, such as Continuum, an organisation that had itself previously acquired Cassell, and also T&T Clark, Berg Publishers, Methuen Drama, Arden Shakespeare, Bristol Classical Press, Fairchild Books and AVA'. Whether or not mergers such as this have been counterbalanced by additional new presses starting up is unclear.

28 A number of new open access university presses have been founded in the UK in the past few years (Keene et al. 2016), so although in terms of output the two ancient universities still dominate, the landscape is becoming more diverse.

29 Elsevier is the publishing arm of the corporation RELX Group. This parent company was known as Reed Elsevier until 2015. For clarity, the publisher is referred to simply as 'Elsevier' in this thesis.

formed after a period of mergers and acquisitions accelerating from the late 1990s onwards (Larivière, Haustein, and Mongeon 2015), coinciding with the transition to online digital publication (see below). And the process of consolidation continues – in 2015, Springer and Nature Publishing Group merged to form Springer-Nature. Competition authorities in the UK and EU have both expressed interest in the academic publishing market (see European Commission 2006; Office of Fair Trading 2002) but have so far not taken any action to counter publishers’ activities.

The relationship between academia and commercial interests may have previously been closer than some would like to admit, but the changes seen in the past few decades – a time period which correlates with the rise of neoliberalism (see Chapter 5) – have deepened the ties in ways that are now extremely difficult to untangle.

The changed nature of publishers’ mission(s), from that of scholarly partner to profit-driven service provider, has implications for how publishers think about the level of access that should be granted to their works. The affordances created by the possibilities of open online dissemination of research can appear as a threat, rather than an opportunity, to organisations that are required to maximise return on investment. (The ways in which publishers are currently engaging with web-based dissemination, including through open access funding models, is discussed further in other chapters.) In the case of academic book publishing, Thompson (2005: 7–8, 45–46, 174–80, 280–85) argues that the higher education sector and academic publishing sector are subject to different internal logics which are sometimes in tension – the symbolic economy of prestige within academia, which is the focus of the next section, is very different to the commercial interests that govern much of publishing.

Academia’s prestige economy

Academia has been described as a *prestige economy*, in which certain markers of esteem fulfil an economic function as symbolic capital (Bourdieu 1977: 171–83; Eve 2014: 43–55; Eve 2017a: 64). Publishing research, as Eve (2014: 44) asserts, is a pivotal aspect of this prestige economy. In Bourdieu’s terms, since symbolic capital and material (economic) capital are interchangeable and interconvertible (Bourdieu 1977: 177–81), prestige as accrued by researchers through academic

publication – and especially through publishing in particular venues (see Eve 2014: 44–47; Thompson 2005: 83) – acts as a form of symbolic capital that is convertible to economic capital through its role in securing academic jobs.³⁰ As such, publishing academic research is fundamental for building a career in academia. For this reason, although contemporary researchers regard the role of publishers in *disseminating* works as important (Wolff-Eisenberg, Rod, and Schonfeld 2016, 2016a), it is the *accreditation* function of publishing that to a large extent determines how and where researchers publish their work.

The uses of media, whether they are print or electronic, are bound up with social practices (Thompson 2005: 326). Trends in publishing tend to follow, or co-develop with, trends in the wider research community – for example, the internationalisation of science is what led to international journals, rather than the other way round (see Baldwin 2015: 198).³¹ Therefore any technological developments cannot be understood separately from the social context in which they exist. For academic publishing, this means that the accreditation function of publishing for academic careers remains a key determinant of the ways in which new technologies are used. In other words, the ‘gatekeeping’ function of publishing, whereby under conditions of scarcity the brand of a journal title or publishing house confers prestige on authors to use as symbolic capital in their career development, is by no means automatically reduced by the shift to online publishing. The political sociologist Horowitz (1990: 22, 162–68) recognised this fact even in the pre-web digital era of the late 1980s, and the need to publish in particular venues remains strong today (Nicholas et al. 2017, 2017a).

Academic publishing in its current form is therefore intrinsically linked with academic labour. Not only is published content the product of academics’ labour, but the system of accreditation conferred through the proxy of publisher brands is widely suspected of being used to outsource hiring decisions within the higher education workplace, rather than assessment of quality being undertaken by those doing the hiring. By delegating the evaluation of the ‘quality’ of research to

30 The idea of higher education as an investment in personal ‘human capital’ – expending economic capital to procure symbolic capital (a qualification) which in turn produces greater economic capital (well-paid jobs) – is returned to later in the thesis in discussions on neoliberal views of the function of higher education.

31 Although it could be argued that journals, in turn, have entrenched existing disciplinary structures through defining what is or is not acceptable for publication.

(usually) unknown peer reviewers at a journal, ‘universities have effectively outsourced to journals and publishers the function of assessing academic quality’ (Smith 2013). As with other areas where digital technology has been changing scholarly practice (see Weller 2011, 2018), the move to digital – and open – academic publishing does not disentangle researchers from the prestige economy.

The implications of all this are felt by researchers across the world. For instance, in India, ‘the Academic Performance Indicator (API) is a metric used in universities to evaluate the teaching and research performance of faculty members, but credit is heavily weighted towards publishing in journals – particularly those with high impact factors’ (Murugesan 2017). And in China, under a ‘cash-per-publication’ system, researchers are rewarded with hefty bonuses for getting a paper published in journals ranked highly in the Web of Science citation index, with even higher rates for *Nature* or *Science* papers in particular (Quan, Chen, and Shu 2017). The reward systems of academia that maintain the prestige economy thus impact decisions that researchers make about how to focus their time and labour.

As mentioned above, the symbolic logic of prestige within academia is in tension with the dominant commercial practices of publishers (Fyfe et al. 2017).³² In the humanities, academics continue to rely on publishing monographs in order to secure tenure and promotion (Maxwell, Bordini, and Shamash 2017), but these are not profitable enough for many commercial publishers so they have shifted their focus away from monographs and towards other kinds of books such as textbooks (Thompson 2005: 166). This ‘monograph crisis’ (Mongeau 2018), in which a growing number of humanities researchers are chasing what appears to be a shrinking capacity of publishers to produce new monographs, exacerbates the anxiety felt by early-career researchers who tend to have highly precarious working conditions (Bothwell 2018). Indeed, the casualisation of the academic workforce may well be forcing researchers to prioritise publication strategies that are more likely to lead to securing employment rather than more potentially progressive goals such as openness, which, as discussed in Chapter 8, is not yet a common requirement of hiring and promotion (Alperin et al. 2018; Odell, Coates, and Palmer 2016; Schol Comm Lab 2018; Morais and Borrell-Damian 2018: 7). As Fecher et al.

32 The tension between these logics has occurred despite the fact that both sectors became increasingly marketised throughout the later twentieth century (see Chapter 6 on the marketisation of higher education).

(2017) frame it, the reward systems of academia's reputation economy are precluding a greater uptake of open practices. The rest of this chapter will explore other ways in which the economic practices of publishing and the social practices of academia are not aligning to produce an optimal level of access to research.

Barriers to accessing scholarly texts

So far in this chapter, the evolution of academic publishing from the twentieth century onwards has been shown to have undergone a commercialisation which has led to publishers pursuing different goals to the researchers whose work they publish. As a result of the complex interplay of researchers' career needs and publishers' financial imperatives (see Fyfe et al. 2017), there is now a situation whereby making research available to as many potential readers as possible is not always at the top of the agenda for either publishers or researchers. In this section some of the barriers to accessing research are highlighted, before moving on the next section in which the ability (or otherwise) of academic libraries to provide access to research is considered. Suber (2011: 183, emphasis in original) has provided a list of four access barriers that restrict people's ability to access research even when it is openly available online:

1. *Handicap access barriers.* Most websites are not yet as accessible to handicapped users as they could be.³³
2. *Language barriers.* Most online literature is in English, or just one language, and machine translation is very weak.
3. *Filtering and censorship barriers.* More and more schools, employers, and governments want to limit what you can see.
4. *Connectivity barriers.* The digital divide keeps billions of people, including millions of serious scholars, offline.

All four of these barriers are impeding access to research, and they disproportionately affect people from marginalised communities. For instance, poor digital connectivity is a big problem in much of the global South, for instance in

³³ The term 'handicapped' is generally considered by disability activists to be inappropriate due to its negative connotations.

Cuba (Jardine, Garvey, and Cho 2017: 470–72), though it also impacts people in the UK (Clark 2016). Filtering and censorship is especially a problem for people who do not have internet at home and rely on institutional access, such as via public libraries, which in the UK frequently block access to certain websites (Payne 2016; Payne et al. 2016). And importantly, there are numerous barriers to accessing research faced by people with disabilities or cognitive impairments. For instance, some people with visual impairments require technologies such as Braille or screen-readers in order to read print or electronic text, and a significant amount of scholarship is not available in these formats.³⁴ In addition, physical library buildings are often not accessible to everyone (Andrews 2016). Therefore open access, by itself, cannot solve all access problems that occur when trying to access research.

To consider one of these barriers in more depth – language – reveals the extent to which geopolitical factors affect access to knowledge. The history of publishing outlined in this chapter, as with so much of the work in this thesis, is almost entirely based in Western Europe, with a shift in emphasis towards the US in the mid-twentieth century. This is partly due to the central focus of the thesis on the UK’s open access policy; partly due to the biases in global research cultures which reflect power imbalances along colonial lines, resulting in the world’s largest publishers – and purchasers – of scholarly publications being based in Western Europe and North America; and partly due to the dominance of the English language as the ‘international language’ of scholarship (see Fiormonte and Priego 2016; Graham, Hale, and Stephens 2011: 16; Priego and Fiormonte 2018).³⁵ Prior to the twentieth century, French and German had at least equal prominence within Western European scholarship, but by the early decades of the twentieth century English had supplanted all other languages in this role (Ammon and McConnell 2002; Crystal 1997: 63) and now the term ‘international journal’ is largely a euphemism for an English-language journal based in Europe or North America.

Another way in which language affects the ability of the general public – or

34 It is the presence of digital rights management software, often added to digital files in an attempt to prevent piracy, that prevents screen readers from reading texts.

35 Access to research publications has been subject to political restriction at various times and places, such as under the Nazi and Soviet regimes (Baldwin 2015: 137–42, 189–92). In the mid-twentieth century this resulted in a ‘cold war publishing divide’ between Western and Soviet states which publishers such as Pergamon helped to bridge by translating Russian research. ‘In effect, university presses and other academic publishers were being subsidized indirectly by a federal government which saw the expansion of higher education as part of its Cold War strategy’ (Thompson 2005: 181).

perhaps it would be more accurate to refer to multiple non-academic *publics* (see Chapter 1, note 2) – to access research is through writing style. The style and presentation of scientific articles has evolved significantly over the past 350 years,³⁶ and not only in correlation with the general changes that occur in language over time – scientific writing has become more technical, ‘designed to convey information of great cognitive complexity from expert to expert’ (Gross, Harmon, and Reidy 2002: 9). Indeed, the complexity of language in scientific articles appears to be continually increasing (Plavén-Sigray et al. 2017).³⁷ Writing in humanities disciplines is often of a highly technical nature as well, with choices of terminology and syntax rendering arguments opaque to non-expert readers. Although across much of the world a fairly high proportion of the population has at least some training in understanding research writing, particularly since the boom in higher education attendance in recent decades (see Chapter 3), this training tends to be discipline specific, and the highly specialised nature of much academic research can make comprehension between disciplines difficult (Vilhena et al. 2014). Thus, issues around access to knowledge do not end at online availability, because the language choices of academics are also important.³⁸ Furthermore, the conventions of scholarly communication embody the content, form, structure of academic knowledges

36 There is not space in this thesis to discuss at length the changes in the *form* of journal articles through time, but a few notes on this history can provide some context. Although early journals share some characteristics with the contemporary academic journal, both the form and content has changed significantly over the centuries. In a sense, the contemporary form of a journal article is ‘the outcome of the long evolution of a form that emerged during the late seventeenth and early eighteenth centuries’ (Holmes 1989: 165), although it subsequently continued to evolve further. This can be seen in the standardisation of form and increasingly impersonal writing style that accompanied the professionalisation of scientific research around the turn of the twentieth century (Gross, Harmon, and Reidy 2002: 118). In long-running journals such as the *Philosophical Transactions* we can see the slow evolution of many aspects of publishing that are taken for granted today. For example, despite sporadic use from the early 1800s, peer review was not actually the norm for scholarly articles until the late twentieth century (see Moxham and Fyfe 2017: 3, 26), and now the prospect of open peer review – whereby authors and reviews are aware of each other’s identities and reviews are sometimes made available online (Ross-Hellauer 2017) – could potentially alter the norms again (although, as so often with ‘new’ innovations, it has been tried before; a form of open peer review was experimented with as early as the 1830s, see Moxham and Fyfe 2017: 13). The fact that even those attributes of articles that have endured for centuries are still historically contingent practices that continue to be in flux is an important reminder of the mutability of scholarly communications.

37 It is worth noting that some academics have been making use of the availability of new methods of communication such as blogs, podcasts, and social media to engage with the public and try to make research more widely understood.

38 See Bammer and Boetcher Joeres (2015) for a series of discussions on writing for various publics.

originating in the global North, pushing scholars from elsewhere in the world to the margins (Canagarajah 2002). In Chapter 8, the importance of recognising different knowledges from around the world will be shown to be central to considerations of scholarly commons.

In the next chapter, the history of access to research will be investigated in terms of the ability for people to participate in higher education, looking at how education reform in the UK from the nineteenth century onwards altered the possibility for an increasingly educated and technically literate workforce to read research. However, while the historical problems in accessing higher education discussed in that chapter – whereby certain groups of people, based on characteristics such as race or gender, were wholly or mostly excluded – may have eased in the current era of mass participation, they have not entirely disappeared. *Cost* remains a strong barrier to entry for both participation in education (see also Chapter 6) and access to publications, and this barrier disproportionately affects marginalised groups. To access publications, even if they are open access, requires access to computers and internet connectivity, thus excluding those for whom this is not possible (see Clark 2016). In the next section of this chapter, the place of academic libraries in facilitating access to research is considered in more detail.

Academic libraries

In exploring the historical context around access to knowledge, it is necessary to understand how libraries fit in to this picture. While the vital role that public libraries play in ensuring that the scholarly works can make their way into the hands of the general public is discussed in Chapter 3, this section concentrates on academic libraries. In the higher education sector, the main purchasers of published academic books and journals are the libraries that belong to higher education institutions, so access to scholarly works is largely mediated by these institutions. This is true for both print and electronic texts. A consideration of current library acquisition practices and budgeting issues will highlight the complexity of trying to adequately fund the publication of research while also providing access to all those who need it.

The combination of a continual increase in the global number of researchers – estimated at 7.8 million as of 2015 (UNESCO 2015: 32–33; see also OECD 2018) – plus a ‘publish or perish’ culture, in which a constant stream of publications is

required for academics' career progression, has resulted in a consistent rise in the number of published journal articles. Accurate estimates of article numbers are notoriously difficult to quantify in the absence of a comprehensive database of all articles, but reported long-term growth trends of around 3% a year are common (see Bornmann and Mutz 2015; Ware and Mabe 2015) with Bornmann and Mutz (2015) calculating a higher rate of 8–9% during the post-war period. A perpetually increasing number of new publications means that the cost to libraries of acquiring access to research has spiralled beyond their ability to keep up, increasing far quicker than their acquisition budgets. This situation has been termed the 'serials crisis' (Douglas 1990; Panitch and Michalak 2005). A squeeze on library budgets took hold from the 1980s, and following a growth period in the UK from 1998–2008,³⁹ recent austerity economics has once again added further budgetary pressure (Jubb 2010; Research Information Network 2010: 4, 8). Since this 'crisis' has occurred in parallel to the increased commercialisation and concentration in the journal market, academic libraries now tend to spend a large proportion of their serials expenditure on acquiring access to content from the publishing oligopoly described above. At the same time, although a greater proportion of library expenditure has been on journals rather than books (Morris and Roebuck 2017: 9; SCONUL 2012: 2), monographs continue to be exceedingly important to the humanities and have themselves been published at an increasing rate (Crossick 2015: 13–16, 21). Some have suggested that the serials crisis could be more accurately called a 'monograph crisis' (see above) because the proportion of newly published monographs that an individual library can afford to purchase has shrunk significantly compared to a few decades ago (for differing viewpoints on this see Adema 2015; and Crossick 2015: 9, 21–22).

Technological developments have made a huge impact on academic publishing, especially due to the introduction of electronic journals. In the early 1990s online-only peer reviewed journals were founded, and by the mid-1990s major traditional publishers had websites where subscribers could access research articles online, such as *Nature's* first online offering that launched in 1998 (Baldwin 2015: 233; see also

39 Because of the increasing income levels of their parent institutions during this period, library budgets grew in absolute terms but shrank in relative terms, as 'the proportion of total university expenditure that went to support libraries fell: from 3.4% to 2.8% across all UK universities, and from 3.2% to 2.6% across the RLUK libraries. So libraries represent a declining share of university budgets' (Jubb 2010).

Morris et al. 2013: 111–12). Over time, libraries began switching from print journal subscriptions towards purchasing combined ‘print and electronic’ licenses, or ceasing to purchase the print versions entirely. And although the serials crisis began before the transition to online publication, it has been exacerbated even further by it.⁴⁰ This is because of a combination of two things: site licenses for institutional access electronic journals, and ‘big deals’ which bundle a large number of journals into a single package for libraries to purchase access to (Lawson, Gray, and Mauri 2016). As early as 2001, some critics (for instance, Frazier 2001) were warning about the potential for monopolistic publishers to ‘lock in’ libraries to purchasing big deals indefinitely with little scope for shaping collections through selection because they cannot cancel individual titles.

As well as the transition of traditional print journals to online publication, the internet has also facilitated alternative ways of disseminating research. The original intention of the web’s inventor, Tim Berners-Lee, was to create a means for researchers to access knowledge and share it with colleagues around the world in a more efficient way (Berners-Lee 2000). Berners-Lee worked at the CERN research laboratory and it is no coincidence that the high-energy physics community was quick to make use of the web for sharing their work. There was a long-standing tradition in this community of sharing preprints, i.e. early copies of research articles before they were subjected to peer review at a journal.⁴¹ Before the web, these were circulated as paper copies, and at CERN there was a large filing system where researchers stored them. In 1991, the physicist Paul Ginsparg at the Los Alamos National Laboratory in the US created an online archive called *arXiv* (pronounced ‘archive’) that transferred the sharing of preprints online – they could be uploaded to a server for anyone with internet access to read (which at the time mostly meant other researchers at universities and research institutes) (Luce 2001).⁴² Although *arXiv* did not originate in a library, it is now funded through a library consortial arrangement (Eve 2014: 61, 74), and the idea of hosting an online collection of research organised at the discipline level (subject repositories) later influenced the

40 The problem is weighted towards commercial publishers, who tend to charge more for equivalent journals than noncommercial publishers. Liu and Gee’s (2017) econometric analysis confirmed that commercial publishers overcharge for STM journal subscriptions.

41 A similar practice occurs in philosophy, in which early drafts are known as ‘working papers’.

42 Initially the server was accessed via FTP (File Transfer Protocol) before transferring to the web in 1993 (Luce 2001).

creation of digital archives that stored research for a specific research organisation (institutional repositories). Managing an institutional repository is now a standard part of an academic library's function. Extending the library's role to include publishing, in addition to this, is discussed in Chapter 8.

So far, this chapter has provided background context to the historical moment in which open access was born. Open access can be seen as a reaction against the limitations of the traditional or proprietary forms of academic publishing described here. The same frustrations that led people to develop open access journals and repositories have also, however, resulted in others taking a more radical and less legal approach to facilitating access to academic knowledge in a digital environment. Therefore to end this chapter, I will briefly consider the phenomenon of academic piracy.

Piracy

Although open access has been progressively making more scholarship openly available, a majority of journal articles are still behind paywalls, which has led some people to turn to piracy in order to access research that would otherwise be inaccessible or unaffordable for them. While some regard this practice as criminal and unethical (Association of American Publishers 2016; Lowe 2016), others consider 'guerrilla open access' (see Swartz 2016, Williwaw 2012) to be a justified act of civil disobedience (Brembs 2016). Of course, piracy is not a new phenomenon. Indeed, Johns (2009) has argued that copyright and piracy are two concepts with a common genesis, and in some ways rely upon each other. The notion that authors have moral and legal rights of ownership over their words – and that publishers are essential intermediaries to provide those rights – was invented in the seventeenth century as a reaction against piracy (Ibid., pp. 6–38; see also Willinsky 2017b). Today, ownership of the copyright in scholarly texts is frequently held by publishers rather than authors. For instance, when an article is accepted for publication in a toll-access journal,⁴³ the copyright is often (though not always) transferred by the author to the publisher through signing a copyright transfer agreement (see, for example, Taylor & Francis [n.d.]). However, if the notion that

43 'Toll access' is Suber's term for work that is not open access and requires payment to access (Suber 2012: 6).

scholarly knowledge is something that can be ‘owned’ is an invented idea rooted in particular historical circumstances, rather than a necessary or inevitable part of the way that scholarship is performed (McSherry 2003), then recent developments in digital technologies have opened up alternative possibilities that put the validity of the existing copyright regime in jeopardy.

In the digital era, the ability to create infinite perfect copies of works at near-zero marginal cost has led to an explosion in media piracy. Correspondingly, copyright violation – which until the late 1980s was dealt with as a predominantly civil offence – has been heavily criminalized through various laws and trade agreements (Yar 2005: 687–88). Academia has been no exception to digital piracy. There are currently a number of academic piracy websites that provide access to scholarly works by ignoring or circumventing copyright restrictions, such as Aaaaarg and Library Genesis (Cabanac 2016). The most notorious of these sites is now Sci-Hub, founded by Alexandra Elbakyan in 2011 (Bohannon 2016, 2016a). Users of Sci-Hub can input a DOI and be taken directly to a copy of the article without needing to provide institutional authentication. The precise methods used by Sci-Hub to do this are not clear but are certainly undertaken without permission from publishers (Bohannon 2016a).

Websites such as Sci-Hub are effective because they solve multiple access problems. Pirate websites are heavily used in some developing nations (Bodó 2018; Bohannon 2016a; Machin-Mastromatteo, Uribe-Tirado, and Romero-Ortiz 2016), particularly among countries which are not part of the global publisher-supported Research4Life access initiatives, such as Indonesia, India, China, and Iran.⁴⁴ Another reason Sci-Hub has become popular is its ease of use – even for those with legal institutional access, the complexity of institutional authentication mechanisms means that it can be quicker and simpler to retrieve an article on Sci-Hub than on the publisher’s website. And from the reader’s perspective, since digital piracy results in an exact copy, it makes no difference to the end use whether the article is pirated or not.⁴⁵ Thus, despite its illegality, piracy works well for many users’ immediate needs

44 Research4Life is a series of initiatives to provide free or low-cost access to published research for researchers in low-income countries (see Meadows 2015). The ‘donor’ system it relies on is critiqued by Chan et al. for reinforcing a subordinate place for researchers based in global South, dependent on ‘aid’ from wealthy benefactors (Chan, Kirsop, and Arunachalam 2011).

45 Although, without having access to the publisher version of record to compare, it can be difficult to know whether the pirate version is identical to the version of record, so users of pirate sites need to place a degree of trust in the source.

– and the distributed nature of the web means that there is no simple technical way to prevent it from occurring.⁴⁶

Due to its illegal status, there are links between piracy and other black market activities. According to Aguiar (2011), the ‘political economy of corruption’ that accompanies such activities undermines political authority and legitimacy, and therefore piracy contributes to a normalization of corruption. On the other hand, according to Karaganis (2011: i) and Yar (2005: 681–82), high rates of media piracy in some emerging economies occurs because the price for licit media is set too high to be affordable to most people. Since pirated works tend to be those produced by corporations based in the global North, Karaganis argues that piracy in fact creates a net economic gain for emerging economies because money that would have gone to multinationals is instead spent within the local economy (Karaganis 2011: 16–18). For further post-colonial critique of piracy, see Schwarz and Eckstein’s (2014) work on piracy in the global South, which examines what happens when cultural practices of copying come into conflict with particular (liberal, Western) legal notions of authorship and property (see also Sundaram 2009).

It is clear that the social and economic effects of piracy are complex. However, in important ways, pirated *academic* work differs from other pirated goods and media. For instance, there are no proven links between academic pirates and other illegal activity. Another area in which piracy can cause harm is pharmaceuticals – pirated medicines pose extreme health risks. This is not the case with pirated journal articles, although the issue of provenance is still relevant – obtaining a scholarly work directly from the official publisher (or through a library-purchased copy) makes it clearer to the end user that the work is a reliable copy. Another way in which the library and publishing communities work together is on long-term preservation; Martin (2016) has examined the preservation potential of pirated media content and finds current practices insufficient. Although the instability Martin describes for torrents may be less pronounced for academic piracy since Sci-Hub has multiple mirrors in place, long-term preservation challenges still remain. If

46 In 2015, Elsevier took out a lawsuit against Sci-Hub (United States District Court Southern District of New York 2015). As a result of this, the original sci-hub.org domain has been shut down. However, there is little chance of it being removed from the web entirely, because numerous mirrors exist outside of US jurisdiction, as well as an onion site accessible using the anonymous Tor service (scihub22266oqcxt.onion). Scholars wishing to examine this phenomenon may find the regularly updated list of working Sci-Hub domains on its Wikipedia article useful (Wikipedia contributors 2018).

academic piracy bypasses prior efforts by librarians and publishers to maintain the scholarly record – such as archiving in perpetuity and guaranteeing provenance – this could undermine the stability of those efforts.

To consider the possible effects on scholarly publishing as a whole if institutions were to cancel subscriptions en masse and rely entirely on piratical access reveals the limitations of piracy as a long-term access solution. Piratical access to new works requires that publishers continue to publish. If all subscribers cancelled their payments to a publisher in the expectation they could access content through Sci-Hub, the publisher's income would cease and content would stop being produced (or rather, the production would shift elsewhere). Assuming that researchers still value the role of publishers beyond simply distribution – and evidence indicates that they do (Wolff-Eisenberg, Rod, and Schonfeld 2016a) – a total sudden collapse of the publishing industry and a reliance on preprints is not something that is likely to be tolerated by much of the academic community. If the labour of publishing must continue, then open access appears to be a more sustainable funding arrangement than piracy.

Piracy is not open access.⁴⁷ It fulfils an immediate need and unquestionably increases access to scholarship for some, but it is a temporary solution which does not address structural issues – it does not help to build the infrastructure required to maintain a sustainable scholarly communication system for the long term. Pirated articles are also not openly licensed, thus limiting their reuse in some contexts (Priego 2016). However, the same digital technologies that facilitate media piracy also make possible (legal) open access. So rather than resorting to the enforcement of criminal law, rightsholders could instead choose to adapt in other ways. For publishers, perhaps the most salient lesson to be learned from Sci-Hub is that rather than engaging in Sisyphean attempts to end academic piracy and to maintain exclusionary systems of access based on ability to pay, a more constructive approach to make the results of scholarship as widely available as possible is open access. In other words, the most effective route to ending piracy is not by legal enforcement, but by ending the conditions that make it necessary.

47 On the links between piracy and the more radical strains of open access advocacy, see Hall (2015).

Conclusion

In this chapter the evolution of the academic publishing system has been revealed as the outcome of a long historical development. Academic journals, in particular, have developed into an integral component of career progression within academia, as well as maintaining their functions of recording and disseminating scholarly research. The reward systems of academia's 'prestige economy' are deeply entangled with the publication practices of researchers, and commercial publishers have exploited this position to create a publishing market that is highly lucrative for some companies but involves barriers that block access for many potential readers. As a result, open access has been proposed as a means to increase the availability of research to a wider public without needing to resort to illegal practices. The historical background in this chapter begins to explain the social and economic context within which open access unfolded. The following chapter further enriches understanding of this context by discussing how universities and libraries have traditionally mediated access to knowledge. Publishers, universities, and libraries are all crucial participants in the creation and circulation of knowledge, so to understand contemporary open access, this history can both illuminate how the current situation came to be, and also suggest continuities between open access and much older practices – the 'old tradition' referred to by the Budapest Open Access Initiative.

Chapter 3. Access to Knowledge: Universities and Libraries

A key theme of this thesis is that open access is both an emancipatory project, and also enmeshed in current political ideologies of neoliberalism. Continuing the historical analysis begun in Chapter 2, this chapter shows how these entangled and seemingly contradictory aspects of open access are related to earlier iterations of the expansion of access to knowledge, when similar contradictions were already present. Since the focus of the thesis is on open access policy in the UK, it is to an earlier period of British history (and an earlier era of liberalism) that I will first turn in order to demonstrate these historical continuities – namely, the Victorian project of expanding educational opportunities to a broad swathe of the British population. This was the epitome of nineteenth-century British political liberalism: a political project that encompassed a self-help ethos and sense of civic duty, a benevolence towards the poor, and a belief in capitalism and markets as drivers of progress.

In using the phrase ‘access to knowledge’, I am deliberately alluding to the diverse array of political activism related to intellectual property that has been grouped under this term in the past decade or so (Kapczynski 2010: 17), but this chapter has a narrower focus on access to *research outputs* (see Chapter 2 for a definition) and participation in the higher education system that is the primary site for the reading and writing of these outputs. By using a historical perspective it becomes clear that access to knowledge has undergone a long, slow process of change, related to developments in mass literacy, libraries, and higher education. This chapter examines the role of two specific kinds of institution with regards to enabling public access to research: the universities in which much of the labour of undertaking research occurs, and the public libraries that play a role in ensuring that scholarly works can make their way into the hands of the general public. Although it is not possible to offer comprehensive histories of these topics within the scope of a single thesis, the discussion given here provides context to contemporary debates about access to knowledge by situating them within a longer history than has been usually been accorded.⁴⁸ The chapter begins with the founding of British public

48 For instance, one of the most widely-read works on open access, Suber’s *Open Access* (2012), is firmly rooted in the contemporary academic situation. An exception to this rule is the work of

libraries, and then moves on to discuss the expansion of higher education during the same period. Next, the further development of mass high education is explored, in which access to universities moved beyond the small elite groups for which higher education was previously reserved. Finally, the narrative briefly returns to public libraries to see how they interact with contemporary open access initiatives. A common thread throughout these interlinked narratives is the gradual increase in the availability of knowledge to wider populations. As such, open access can be seen as a continuation of a long, slow trend of broadening access to knowledge.

Increased access to knowledge in Victorian Britain

In the Victorian era, education in the UK underwent significant reforms. This occurred in part due to pressure from organised labour (Simon 1965) and in part through the efforts of liberal reformers who believed that educational opportunities should not be restricted by class (Strong 2014). However, it could also be argued that an additional political driver for education reform was its use as a means of controlling the working classes by subduing any radical tendencies (see below). Therefore increasing access to knowledge beyond traditional elites was both a desired outcome for believers in enlightenment values and also a means of social control. How these reforms developed for compulsory school-age education has been the subject of detailed scholarship elsewhere (see Lawson and Silver 2007: 308–57; Royle 2012: 403–23); in this section, the focus is on two specific institutional forms: public libraries and universities.

For most of their history, libraries have existed to serve specific communities, although some were also open to members of the general public. The UK is generally recognised as the first country to legislate for a nationwide library service⁴⁹ and so transition from a patchwork of local community and membership libraries to what would be recognised today as a modern national public library service. The term ‘public library’ was used in Britain as early as the seventeenth century to describe libraries supported by a variety of funding models (Kelly 1977: 3–4):

John Willinsky, especially the final chapter of *The Access Principle* (2006) and his recent book *The Intellectual Properties of Learning: A Prehistory from Saint Jerome to John Locke* (2018).

⁴⁹ To qualify this statement, it should be mentioned that the UK’s initial legislation only *allowed* individual local authorities to raise taxes for public libraries, rather than *require* them to do so. Further, legislation was also passed at a local/State level in the US around the same time, such as in New Hampshire in 1849 and Boston in 1852 (Shera 1949: 165–88).

endowed libraries (founded by philanthropists), subscription libraries,⁵⁰ and institutional libraries. These models encompassed a diverse range of library types, from the institutional libraries of religious organisations through to co-operatively owned workers' libraries. When public libraries in the modern sense – i.e. publicly-funded institutions for use by the whole community – were created, they built on this earlier legacy, in some cases very directly with the transfer of books and buildings (Kelly 1977: 72–74). The idea of public libraries as a network of institutions to serve an entire nation only became possible in the UK following the 1850 Public Libraries Act which allowed town councils to establish libraries funded by raising local taxes. Over the next century the national network slowly came into being with steady growth in the number of libraries, driven by further legislation such as the 1919 Public Libraries Act that extended library provision beyond urban centres to counties as well (Pemberton 1977: 13–15). The amount of funding that could be raised through taxation was limited so many libraries relied on philanthropy from wealthy individuals to fund the acquisition of reading materials, with the steel magnate Andrew Carnegie taking a leading role in paying for the buildings themselves (Kelly 1977: 115–37; McMenemy 2009: 27–30). Library provision to all finally became a statutory obligation of local authorities with the 1964 Public Libraries and Museums Act.

Libraries have often been idealised as 'neutral' and classless,⁵¹ which obscures their political dimension. Indeed, class relations were intrinsic to the public library movement that led to the original British legislation in 1850 – enacted after campaigns by Liberal MPs William Ewart and Joseph Brotherton – with Victorian middle class notions of social- and self-improvement a key driver in the idea of providing library facilities to all (McMenemy 2009: 24–25; Pemberton 1977: 9–10). Public libraries were created with the aim of 'bettering' the working classes; they were designed as cultural institutions that would shape public taste and foster 'good citizenship' (Black 2000: 4). It was thought by some advocates that providing free literature to workers would dull revolutionary tendencies and interest in radical socialism (Black 2000: 25–27, 145–46; Black, Pepper, and Bagshaw 2009: 42–43). Conversely, Rose argues against this – rather than instil bourgeois values, working-

50 Subscription libraries, which were private libraries to which members would pay regular dues, lasted until the mid-twentieth century when they were finally supplanted by tax-funded libraries (Black 2000: 115; Kelly 1977: 344).

51 See Pateman (2000) on class and Lewis (2008) on library 'neutrality'.

class education was a means for workers to break out of prescribed class roles (Rose 2010: 23). If ‘economic inequality rested on inequality of education’ (Rose 2010: 24), then institutions designed to provide greater equity of access to knowledge were part of the egalitarian spirit of liberal reform. Equity of access is seen as central to the purpose of public libraries, with McMenemy arguing that they ‘represent the ideal that everyone within society deserves the right to access materials for their educational, cultural and leisure benefit’ (McMenemy 2009: xiii; see also the IFLA/UNESCO Public Library Manifesto 1994).

Although the image of public libraries is one of a progressive social institution that provides greater equality of opportunity to people of all social backgrounds (Horrigan 2016: 6–10; MLA 2010: vi, 58–60), a central contention of this chapter is that a counter reading can also be made of the history of working class education in the UK, against the idea of liberal progressivism – there was a gradual shift of control out of the hands of the workers themselves and towards the governing classes. Working-class education expanded greatly throughout the nineteenth century, and not only through state-sponsored channels: mutual improvement societies, co-operative societies, miners’ libraries, and mechanics’ institutes all contributed to adult education. In the narrative offered by historians such as Rose (2010), it began with working class activists organising among themselves, was later solidified into institutions such as mechanics’ institutes which were much more heavily reliant on middle-class patronage, and finally led to state control of education.⁵² While in some ways this could be seen as a victory, resulting in universal free education for all children regardless of class, it also diminished traditions of mutual support and self-organisation in place of benevolent ‘care’. This narrative is somewhat over-simplified – after all, self-educated intellectuals were always a minority within the working classes (Rose 2010: 236) – but raises important issues around power relations that are discussed further below. Public

52 The institution at which the research for this thesis has been undertaken, Birkbeck, is itself an example of these changes. It was initially founded by George Birkbeck as the London Mechanics’ Institute in 1823 (see Kelly 1957). It later became associated with the University of London, first through offering examinations at the university to its students in 1858, and finally becoming a constituent college of the federal university in 1920 (hence the current name, Birkbeck, University of London – see Birkbeck [n.d.]). Throughout, Birkbeck has focused on providing education for working adults, which is still true today with its focus on evening education and support for part-time and mature students. However, the evolution of the institution also embodies the changes mentioned above; it was founded by a wealthy philanthropist, and eventually became part of mainstream higher education.

libraries were part of this process. The state-funded public library network that was becoming fairly comprehensive by the early twentieth century did offer greatly expanded opportunities for working-class people to access books, but at the cost of removing some of the agency from the decision over what to purchase that was present in the small local libraries of a century earlier.⁵³

Since the ideals that were presented in favour of expanding access to public libraries (and higher education) are emblematic of the liberal enlightenment, it is also vital to remember the destructive legacy of colonialism and empire that coexists within this same tradition. Comparing the creation of public library services in the UK with the experience of some former colonial nations shows the imprint of this imperialist legacy – and the fight against it. For instance, New Zealand had an incredibly high density of libraries within a few decades of European colonisation but these were almost all subscription libraries rather than being municipally-funded (Traue 2007: 153), as were the British-introduced libraries in Malaysia until American organisations introduced free libraries in the 1950s (Yu 2008: 65–67).⁵⁴ The Dutch colonial administration in Indonesia created 2,500 public libraries to cement its authority through instilling its values (Fitzpatrick 2008; see also Sulistyobasuki 1998). While Britain was responsible for introducing modern public libraries to some countries,⁵⁵ it used a similar propagandist model to the Dutch in various African and Asian colonies (Fitzpatrick 2008: 283). In 1930s India, on the other hand, Ranganathan saw libraries as part of an anti-colonial political project, ‘draw[ing] a link between open access to knowledge and the need for wider social transformation’ (Roe 2010: 19). Although a scattering of public libraries already existed in various Indian cities (Patel and Kumar 2001: 2–14) these did not cover most of the population, and the movement to create a national network of public libraries (along with mass literacy and education) was grounded in the struggle against colonial rule (Roe 2010: 18–32). These histories show a diverse global picture in terms of the political dynamics of introducing national public library systems, particularly in terms of their colonial origins, with lasting consequences for their future development (Cram 1993; Ignatow 2011; Ochai 1984; Odi 1991). Widening access to knowledge has been viewed as both emancipatory and,

53 See Baggs (2004) for details of this process in action in the miners’ libraries of south Wales.

54 The US also played a similar role in Japan (Ibid., pp. 67–68).

55 For example Ethiopia (Coleman 2005), but see also Rosenberg (1993) on the British colonial authority’s lack of interest in setting up a national library service in Kenya.

conversely, as a tool for indoctrination.⁵⁶ If public libraries are governed solely in the interests of governing classes rather than for ordinary citizens, their potential for facilitating a more equitable distribution of knowledge is diminished.

Formal higher education also underwent significant changes in the nineteenth century, moving far beyond its medieval origins.⁵⁷ English higher education had remained highly exclusive for centuries with only two universities – Oxford and Cambridge – for over 600 years, with an additional four ancient universities in Scotland, one in Ireland, and none in Wales.⁵⁸ And ‘with the exception of the Scottish [universities], which were open to all comers, entrance to each of the English and Irish institutions was restricted on the grounds of expense and belief’ (Whyte 2015: 4). The process of opening up university attendance to a broader public began around the turn of the nineteenth century; new universities were created in Britain’s civic centres such as Manchester, Liverpool, and Birmingham (Collini 2012: 27–28) and the modern idea of a university was born (Readings 1996: 7; Rüegg 2004: 5–6). However, the first new universities still all had religious connections: the Catholic Maynooth College in Dublin (founded 1795), and the Anglican St David’s College Lampeter (1827) and Durham University (1832) (Whyte 2015: 30–33).⁵⁹ London lacked a university until the founding of University

56 See Rose (2010) on the importance of paying attention to readers’ own perceptions of the effect of reading and education, rather than relying entirely on theoretical exposition.

57 Although there is not space in this thesis to discuss the full history of universities at length, this footnote can give some historical context. The ‘medieval origins’ of universities are contested, since various institutes of teaching and scholarship have existed for millennia across many world cultures, from Confucian schools in Han dynasty China to the madrasas of medieval Islam. However, histories of universities in Western Europe do place their origins in the medieval period, with the oldest European universities – in Bologna, Paris, and Oxford – founded in the high middle ages (c.1100-1200). At this time, intellectual learning in Europe primarily took place in monasteries and cathedral schools, while practical instruction in crafts and technologies occurred through the guild system (Pedersen 1997: 113–14). Already-established centres of learning in Bologna and Paris evolved into universities through changes to the organisation and legal status of students and teachers, with the term *universitas* referring to the community of pupils and masters rather than an institution as such (Ibid., pp. 139–45, 151). As well as monastic traditions, the universities built on earlier traditions from schools in the Middle East, Greece, and Rome – for example, the breaking down of scholarship into distinct disciplines has roots in Aristotle’s Lykeion, which was also the first known school to combine teaching and research – as ancient scholarship was slowly reintroduced to Europe through contact with Islamic culture (Pedersen 1997: 1, 13–14, 116–22). By the thirteenth century universities were opening across Western Europe and the traditions of teaching and learning they developed remained fairly stable for centuries to come.

58 The Scottish universities were St Andrews (founded 1413), Glasgow (1451), Aberdeen (1495), and Edinburgh (1583). Ireland’s Trinity College Dublin was founded in 1592.

59 Many of these foundation dates refer to the founding of the initial higher education institutions,

College London in 1828. Inspired by the University of Berlin, it was explicitly designed to cater for the middle classes, and as the UK's first secular university it was the first of the new British universities that was not reliant on support from both church and state (Whyte 2015: 36–37). King's College London was founded as a direct Anglican reaction to this (Ibid., pp. 43–44).⁶⁰

The number of institutions of higher education gradually expanded throughout the rest of the Victorian era, with new British universities looking more to Scotland, Germany, and the United States for inspiration than to Oxford and Cambridge (Whyte 2015: 135).⁶¹ However, this did little to make higher education available to the masses, with the tuition fees that were charged to students at UCL and KCL at the time still too high for most people (Whyte 2015: 63) so those institutions served a small clientèle; it would be another century before a mass higher education system developed (see below). The 1870s saw the first real attempts to bring the benefits of higher education to women and working class men, through public 'extension' classes taught by university lecturers (Whyte 2015: 113–14; see also Woodin 2017: 27). This kind of 'outreach' activity was possible because by the mid-nineteenth century, education reforms meant that most adults were literate to some degree (Kelly (1977: 18),⁶² and thus details of the occupations of registered library users in the 1870s show that a majority are of the working classes (Kelly 1977: 82–83). The coupling of broadened access to education with public library provision resulted in a dramatic expansion of public appetite for access to scholarship. The professionalisation of science around the turn of the twentieth century (Secord 2009; see also Chapter 2) also contributed to greater participation in scholarship beyond the traditional 'gentleman-scholars' so prominent in previous eras of scientific

such as colleges, which later became fully fledged universities.

60 In light of the current government plans to force all UK universities to run or sponsor secondary schools, it is worth remembering that both UCL and KCL did just this in the 1830s, to provide a pipeline of qualified students (Whyte 2015: 47). Furthermore, with the creation of the overarching University of London to award degrees for both colleges, the Home Secretary had power to directly alter the curriculum (Ibid., p. 49), a level of intervention that would be extremely controversial today.

61 For most of their history, universities were first and foremost institutions of instruction rather than research. The transition to seeing the production of new knowledge as an equally important role, via professors undertaking original research for publication, originated with the nineteenth century German 'Humboldt' model (Geiger 2015: 253, 256–57).

62 In fact, there were fairly high levels of literacy much earlier than this – see Rose (2010) – but a national system of free primary education helped make this more consistent across different classes and regions.

enquiry (Røstvik and Fyfe 2018; Shapin 1991), although the requirement of a university education may have had a negative impact on self-trained working-class scientists (Rose 2010: 70–72).⁶³ Access to reference materials through public libraries played an important supporting role in all of this – at least in the cities – particularly in expanding access to women, who had often been excluded from both universities and institutions designed for working men (Baggs 2004: 120; Rose 2010: 18–20, 76–77).

Victorian education reform took place in the context of Britain’s imperial ambitions. Perhaps even more so than public libraries, institutions of higher education were an integral part of the colonial project. Prior to this time, in the sixteenth and seventeenth centuries, as European colonists invaded the Americas they built colleges to spread Christian ideas, from those founded by Catholic orders across the region that would become Latin America to the puritan college of Harvard in New England (Wilder 2013: 18–23). According to Wilder, these institutions were more about the strategic value they conferred for political causes than any notion of ‘higher learning’ that later became synonymous with the modern university, and throughout the eighteenth century there was a close relationship between colleges and slave traders (Wilder 2013: 21, 47–77; Collini 2012: 23). In the British empire, the Victorian period saw the creation and expansion of European-style higher education institutions throughout the settler colonies,⁶⁴ where ‘the creation of universities became an essential marker of colonial “development”, a means whereby colonies could assert their own maturing identities, expand their elites’, and form the ‘cadres’ of white British men who would run colonial institutions (MacKenzie 2013: vii). Initially set up, usually by religious denominations, ‘by self-confident settler elites who saw them as both symbols and disseminators of European civilisation in the colonies’, Pietsch (2013: 3–5) has shown how deep networks of cultural and institutional relations connected settler universities with British academia. By introducing schemes such as travelling scholarships and leave-

63 Pietsch writes that ‘by the second half of the nineteenth century it was the credentials of universities and professional societies, rather than the word of gentleman amateurs, that served as the guarantors of reliable knowledge’ (Pietsch 2013: 62). The exclusionary nature of access to these institutions most likely negatively affected the ability of working-class scientists to participate in professional activities.

64 The term ‘settler colonies’ is used by Pietsch and MacKenzie in this book to refer to the Dominions of Canada, Australia, New Zealand, and South Africa rather than the British colonial territories elsewhere in Africa and Asia, in recognition of the way that white settlers in these places saw themselves as a connected part of the British community.

of-absence programmes, these institutional networks helped to forge strong ties between colonists and Britain, with the exclusionary nature of access to these networks cementing the power of white elites (Ibid., pp. 39–55).

British education policy in the imperial colonies has been described by anti-colonial historian W. Rodney as ‘an instrument to serve the European capitalist class in its exploitation’ (Rodney 1972: 264–65; see also Whitehead 2015 and 2015a for an overview of the topic from a conservative perspective). Colonial universities in India were founded in the 1850s by British officials as part of a ‘civilising’ project and for several decades staffed only by British-born teachers; indeed, throughout the British colonies, academic staff were – with few exceptions – almost exclusively white (Basu 1989: 167; Pietsch 2013: 70–72). Therefore although higher education in the Victorian period saw rapid development in terms of institutional maturity, professionalisation, and increased numbers of students and academics, it remained an exclusive system beyond the reach of most people. It was in the twentieth century that barriers to access began to break down further and so the next section describes how a system of mass higher education came into being.

Mass higher education

Moving on from the above discussion about the formation of a modern higher education system, this section examines the subsequent development of *mass* higher education. In the UK and across much of the world, higher education today is undoubtedly a mass phenomenon: on average, over 50% of the population undertake higher education in OECD and G20 nations, with 43% of 25–34 year olds educated to a tertiary level as of 2015 (OECD 2017: 45, 284). It is only relatively recently that such a high proportion of people could attend university, following explosive growth in student numbers in recent decades. As recently as 1950, only around 3% of the ‘traditional’ age cohort (18–21 years old) attended university in the UK (Whyte 2015: 205). By seeing how universities evolved from a small number of institutions with a strong religious bearing into the large international network which educates such a high proportion of the global population today, it is possible to see how the rapid expansion of access to higher education has brought an increasing number of people into contact with scholarship. The chronology of this section will skip back and forth as class, race, and gender are each examined in turn with regards to the

ability (or otherwise) of different demographics to participate in higher education. The discussion here is focused largely on quantitative indicators of access to higher education; see Chapter 6 ('Neoliberal Higher Education') for political analysis of the changed nature of the university in the contemporary situation.

When considering how access to higher education has changed throughout history, the most obvious starting point is to look at the number of students as a proportion of the population. In England, university attendance rose during the sixteenth and seventeenth centuries to the point where 2.5% of 17-year-old men were in higher education, a level that was not to be surpassed until after the second world war (Stone 1964: 57). However, by the early nineteenth century no further universities had been created and student numbers had fallen to less than 1% in England and around 2% in Scotland (Whyte 2015: 4). It was in the United States that a mass higher education system was first developed that was no longer the preserve of an elite (Geiger 2015: x, 428). In the late eighteenth century around 1% of college-age US white men⁶⁵ attended what Wilder (2013: 138) has referred to as 'the intellectual and cultural playgrounds of the plantation and merchant elite', rising to 1.8% by 1860 (Geiger 2015: 76, 242). According to Geiger, the nineteenth century actually saw colleges become more elitist, and by the end of the century US higher education institutions were more socially exclusive than ever before (Geiger 2015: 225, 400–01). This soon changed however, with 5.5% of 18–21 year olds in higher education in 1915 and 15.5% in 1940, higher than any other nation at the time (Ibid., p. 428). This was partly due to the increase in high school education – even if higher education institutions were technically open to all, people could only become college students if they had the necessary preparation (Ibid., p. 429). In this way 'mass higher education embraced unprecedented numbers of students, many from groups that had virtually no previous access to colleges' (Ibid., p. 444).

In the UK, steady growth in student numbers began after the First World War: in 1914, 1% of 18–21 year olds in England were in higher education, rising to 2% in 1938, 3% in 1948, 6% by the early 1950s, and 14% in 1970 (Robbins 1963: 11; Whyte 2015: 146, 205, 236). The biggest expansion of all occurred from 1988–96, and by 2007, 35% of 18–20 year olds attended (Boliver 2011: 231–32).⁶⁶ This

65 See below for discussion of race and gender discrimination in college admissions.

66 See Figure 1 in Boliver's article (2011: 232) for a visualisation of the expansion that clearly shows two peaks in the 1960s and 1990s. As of 2017, the proportion of 18–20 year olds in higher education has risen to 49% (Adams 2017).

growth in the number of students correlated with a growth in the number of universities. The fact that new civic universities (see above) were founded in the UK's large cities of the North and Midlands helped diversify the student body; in the 1900s a majority of students in Bristol, Manchester, Leeds, and Liverpool were local, and this remained the case until the 1950s (Whyte 2015: 144, 205, 237). Civic universities remained, however, dominated by the middle classes (Whyte 2015: 205–06). Rising student numbers in the post-war period were partly driven by non-university enrolment, with more than half of these students at higher education institutions such as teaching training colleges and technical colleges (Whyte 2015: 235).⁶⁷ However, this expansion did not bring a larger proportion of working-class students into universities, with little change from the 1920s to the 1990s (Boliver 2011; Whyte 2015: 239). Boliver argues that 'inequalities of access to education are unlikely to decline simply as a result of expansion because those from more advantaged socioeconomic backgrounds are better placed to take up the new educational opportunities that expansion affords' (2011: 230; see also Blanden and Machin 2004). In part, the post-war expansion was driven by government objectives of producing a highly educated workforce to aid economic growth (Whyte 2015: 233). But within these objectives, there remained differences between the reasons for higher education for people from different classes, between 'liberal education' for the elite to prepare them for high status roles in society versus more vocational job training for the rest (Whyte 2015: 208–09). Government interest in the internal life of universities is also related to overt political power; universities have always been tied up with national and government goals. This is made most clear in the UK by the fact that Cambridge and Oxford universities had their own MPs until 1950 (as did civic universities after 1918, see Meisel 2011).

Higher education has often been restricted to people with certain social characteristics, particularly along racial, gender, and class lines.⁶⁸ In the pre-

67 Technical colleges ('polytechnics') were intended to be a more vocational form of education than 'traditional' university study. However, by the time they were abolished in 1992 and given university status, the differences between polytechnics and universities had diminished greatly, for example some already awarded postgraduate research degrees (Brown and Carasso 2013: 33; see also Pratt 1997).

68 Although 'the early sources never mention entrance exams or other criteria of admission' (Pedersen 1997: 213), access to the ancient European universities was restricted to people who were Christian, male, and already fluent in both spoken and written Latin (Pedersen 1997: 214). Although free church-funded schooling (including Latin instruction) meant that it was not exclusively the higher classes who were able to educate their children, in practice few working

revolutionary United States, universities were deeply implicated in the slave trade, with northern slavetraders and wealthy southern slave owners funding northern colleges and enslaved people being used to build them and serve within them (Allen et al. 2006: 4–5, 12–15; Wilder 2013: 1–11). And this relationship was not only financial – college professors were a driving force in promoting racist, so-called ‘scientific’ theories of white supremacy (Wilder 2013: 211–39, 273). By the nineteenth century, colleges continued to only admit white students, and some southern colleges were overtly pro-slavery (Geiger 2015: 233). At the time of the first experiments with mass higher education in the United States in the early twentieth century, racial segregation was still practised by colleges and universities in southern states (Geiger 2015: 467–78).⁶⁹ The higher student numbers at this time led elite US institutions to restrict their intake, thus making them even more exclusive, and to discriminate against Jewish students (Geiger 2015: 449–53; Soares 2007: 23–27, 78–80). The opportunities for black students were slim in other regions of the world at this time as well; before the 1930s, there were only a handful of colleges in Africa and the Caribbean that offered higher education for Africans (Pietsch 2013: 181). The legacy of colonialism continues to this day, with racism still a very present force within the contemporary university (Sian 2017; see also Gutierrez y Muhs, Niemann, Gonzalez).⁷⁰ Furthermore, in the UK, the number of black professors remains extremely low (Grove 2016).

Until the nineteenth century, women were unable to obtain degrees. Women were admitted to Owens College (forerunner of the University of Manchester), Bristol, Royal Holloway, and Mason College Birmingham in the 1870s (Tylecote 1941: 9; Whyte 2015: 115, 121),⁷¹ forty years after women were first admitted to higher education in the US (Geiger 2015: 206). University education was extended to women in British colonies around the same time (Pietsch 2013: 27). Since academic appointments required a university education, the percentage of academics

class students were able to progress to university. In light of early twenty-first century debates around loans versus grants it is striking that examples of both funding methods were already in existence by the thirteenth century (albeit from private/ecclesiastical sources rather than the state), but most university students relied on family wealth to support their living expenses while studying (Pedersen 1997: 218–20).

69 Public libraries were also segregated (Geiger 2015: 112).

70 In the US, minority students are now disproportionately enrolled in for-profit colleges, which do not have the cultural caché or economic advancement prospects of the traditional university sector (Macmillan Cottom 2017: 28–29, 59–60).

71 See Dyhouse (1995, 2006).

who were women was similarly low – 1.5% in 1932 in Britain – and academic culture remained resolutely masculine (Perrone 1993; Pietsch 2013: 141). In the post-war period the demographics of the student population did eventually change, and by the early 1990s women made up over 50% of the student body in the UK (Whyte 2015: 292).

From the Humboldt model in Germany, to the spread of new European models to US, and the civic universities in UK, a particular image of the university spread out to the rest of the world during the nineteenth century. The global expansion of higher education was driven to some extent by colonial ambitions – the number of universities grew more quickly in the British colonies than in Britain itself (Whyte 2015). After the Second World War, in the period of decolonisation, newly independent nations saw universities as ‘powerful organs for the formation of identity and the projection of power’, and so increased the number of universities, student places, and the amount of research funding (Pietsch 2013: 192). This was the beginning of a period when the expansion of mass higher education described above also occurred across much of the world. As of 2016, in OECD countries the proportion of 25–64 year-olds with tertiary education was 36% whereas for 25–34 year-olds it is 43% (OECD 2017: 45), which shows the continuing growth in attendance among young people. This is not evenly distributed across different countries, however, with rates for 25–34 year-olds at 13% in Indonesia, 10% in South Africa, 17% in Brazil, and 18% in China – compared to a high of 70% in South Korea (OECD 2017: 51).⁷² The overall trend of a continual increase in these rates is near universal, for instance, the proportion of the population in India aged 25 years and older who have a Bachelor’s degree rose from 2.5% in 1981 to 9% in 2011 (UNESCO [n.d.]).

This section has focused on *access* to higher education, and due to limitations of space it has omitted some important aspects of this subject, not least the introduction of distance learning, pioneered in the UK by the Open University (see Weinbren 2014) and now often provided online (see Chapter 4 for more on open education).⁷³ It is not possible to cover the topic in more detail here given the scope

72 Due to variations in the availability of statistics for each country, the data in the OECD report is not all from the same year.

73 It might seem like a significant omission to not include more detailed discussion of the Open University (OU) in this thesis, but as the next chapter explains, the focus here is primarily on a particular kind of openness. Open access is about making research available in a digital, online,

of this thesis, although further analysis of the politics around contemporary higher education will be elaborated on in Chapter 6. Nevertheless, it is clear that the expansion of participation in higher education has brought an increasing number of people into contact with scholarship. In the final section, I will briefly return to the role of public libraries in mediating the public reception of research, and bring the discussion up to date by looking at how open access relates to this.

Access to research in the contemporary public library

Information access is only one of the functions of public libraries – Wiegand (2015: 1–6), for instance, argues cogently that acting as a social place within the community and developing a love of reading are at least as important – but nevertheless, they have played an essential role in facilitating access to information of all kinds, including scholarly research. The changes undergone in academic publishing over the past few decades (see Chapter 2) may have had a more obvious effect on *academic* libraries, but public libraries should not be forgotten when considering the impact of these changes on the reception of research.

Librarians can be seen as both facilitators of access to information but also as gatekeepers (Oyelude and Bamigbola 2012), a dual role that highlights a tension within the profession's ethics. In some ways the need to directly mediate between library users and their materials has been reduced over time through both social and technological advances. For instance, the term 'open access' was originally used to refer to print materials held on open shelves rather than in closed stacks, a practice which was unknown in the early days of public libraries (Kelly 1977: 176–82) and after being introduced in the US from the 1890s (Wiegand 2015: 79–81) it only became widespread in the UK following the First World War (Black 2000: 52). To take a more recent example, if a library now provides an electronic version of a text then the user may be able to access it without physically going to the library. In both of these examples library workers are still facilitating access but their role is less obvious to the end user and so the necessity of librarians' labour is obscured.

and openly-licensed form – none of which were possible when the OU was founded. The fact that the word 'open' is used to describe both is an example of the limitations of the language that is currently used to talk about these concepts. As such, the significance of the OU is stronger with regards to access than openness. This is because the OU (like Birkbeck, see note 50) has played an important role in providing access to higher education to people for whom a 'traditional' three-year full-time degree course would not be possible.

Unfortunately, the fact that labour is often hidden has resulted in calls from the libertarian right to end public library services due to ill-conceived notions that librarians have already been automated out and libraries are obsolete (the ‘everything is online now’ fallacy – see Butler 2015, Worstall 2016). In reality, public libraries continue to be an important source of information provision for citizens, and the UK’s open access policy recognises this.

Public libraries have always had to be responsive to the political context of the time. For example, in the UK under New Labour social inclusion became an explicit part of library policy (Department for Culture, Media and Sport 1999; McMenemy 2009: 6),⁷⁴ whereas the later 2010–15 coalition government cut local government spending to such an extent that many councils closed libraries in response (BBC 2016). Such an engagement with the policy direction of particular governments is also very clear with regards to open access. A central rationale for open access is that not all users (or potential users) of academic research are within the academy, and research could have greater impact if results are made more widely available. The composition of publics outside of the academy varies at any given time but includes teachers, further education students, retired academics, industry and entrepreneurs, refugees,⁷⁵ and ‘para-academic’ or contingent academic labour without a permanent faculty position. The UK government has made open access a priority in order to exploit the economic potential of these publics – especially startups and entrepreneurs. The notion that public libraries could provide scientific and technical knowledge in order to drive innovation and therefore stimulate economic growth is an old one. Although in the late nineteenth century public libraries’ provision of technical literature was patchy (Kelly 1977: 77–78), by the First World War they were seen as supporting economic activity around scientific and technical progress, leading to the development of numerous commercial and technical libraries (Black 2000: 13–14, 28–29; Kelly 1977: 243–44).

A similar supporting role for public libraries was envisaged by David Willetts, the former Minister for Universities and Science (2010–14), who initiated the UK’s

74 See also Muddiman et al. (2000) who questioned the efficacy of this policy.

75 An often overlooked point, but many refugees are university students or graduates (Magaziner 2015; Parr 2016). With close to 1% of the global population now displaced (Jones, Sam 2016) – there are an estimated 68.5 million refugees (UNHCR 2018; see also Beaumont 2018) out of a global population of 7.6 billion (United Nations 2017: 1), i.e. 0.9% of people – access to education and research for refugees has become a major global issue.

current national open access policy direction (see Chapter 7). After 150 years of expanding access to knowledge through public libraries, using them to increase access to online research can be seen as a logical expansion and resulted in the UK's free access⁷⁶ service, 'Access to Research' (Access to Research [n.d.]; Faulder and Cha 2014). The scheme provides free access to online journal articles from public library computers. This is an exception to most of the UK's open access policies in that it focuses on end users rather than the supply side, i.e. academia. It has so far not been a runaway success – figures from the initial 19-month pilot period of the service showed a wide variance in usage between different library authorities, with some seeing no usage at all, and the national total of 89,869 searches from 34,276 user sessions during the period translates as only 1,800 users per month (Shared Intelligence 2015: 15–19). The Shared Intelligence report treats this as successful, but 1,800 out of a population of 65 million is extremely low.⁷⁷

Furthermore, the Access to Research scheme is taking place concurrently with an unprecedented level of budgetary cuts to public library provision in the UK, alongside ongoing commercialisation and de-professionalisation which threaten to reduce the ability of public libraries to function as a site of lifelong learning and civic engagement. Walk-in access to research is of no value to citizens whose library has been closed. From 2010–16, 343 UK public libraries were closed, 174 were de-professionalised by handing control over to community groups and volunteers, and 7,933 library staff (around 25%) were made redundant (BBC 2016). These cuts have continued, with around 100 further library closures the following year and at least 500 libraries now staffed by volunteers (Flood 2017; Onwuemezi 2017). The withdrawal of state support for public services is part of the neoliberal agenda analysed in Chapters 5 and 6 (see also Greene and McMenemy 2012). The fact that the coalition and Conservative governments in the UK have reduced access to knowledge by presiding over such drastic cuts in public library provision, while also promoting open access, is a strong indicator that the specific kind of open access that interests these governments is likely to be one that aligns with a market-driven agenda. A fuller analysis of this point will form the core argument of Chapter 7.

76 The phrase 'free access' is used here rather than open access because standard definitions of open access require some form of open licensing in order to count as full open access (see Chapter 1), rather than the temporary access granted through the Access to Research scheme.

77 Sci-Hub, by contrast, has significantly higher usage than the Access to Research scheme (compare with Bohannon 2016a).

Conclusion

From the creation of public libraries, the expansion of higher education, to the global adoption of the internet, a shifting distribution of power has put more information in the hands of more people. Open access to research in the digital era is part of this longer history of access to knowledge. But if the decisions governing open access policy are subject to the whims of temporary administrations, then nothing is inevitable about the success or otherwise of open access – rights obtained after a long struggle can always be rolled back. Despite all the gains made so far,⁷⁸ not everyone has equal access to knowledge; money and social advantage are still barriers to accessing the results of scholarship, let alone participating in its creation. The extent of academic piracy highlights the uneven geographical distribution of access to research – as mentioned in the previous chapter, pirate websites such as Sci-Hub and Library Genesis show great demand in majority-world nations such as Indonesia and Iran.⁷⁹ This indicates that there is still much work to be done. Throughout history, progress in this area has often followed on the heels of grassroots or illicit activity. For instance, although nineteenth-century public libraries resulted from top-down work of social reformers rather than bottom-up demand, they entered a world already containing a rich variety of autonomous working-class libraries; and piracy is often a precursor to the implementation of legal solutions (Johns 2009). Those researchers and activists who see open access as a progressive catalyst for social change can learn much from paying attention to the lessons of history, particularly its social and political dimensions. The trade-off between access and agency seen in the creation of public libraries that supplanted grassroots efforts has resonance with regards to current debates surrounding open access in the context of North-South relations. Indeed, it could be argued that the ‘missionary’ aspect of the UK’s early public library provision, whereby wealthy philanthropists bestowed gifts upon the poor, is in danger of being replicated in the approach of some open access advocates from the global North. Taking care to foster relationships of mutual co-operation may go some way towards avoiding this fate, as

78 See note 7 in Chapter 1 regarding the growth of open access.

79 See Bodó (2018; 2018a) on ‘shadow libraries’, the geographical distribution of their users, and the historical reasons why Russia is the centre of much academic piracy. High-income nations do also have significant use of pirate websites though, as analysis of Sci-Hub usage data has made clear (Bohannon 2016a; Greshake 2016).

the analysis in Chapter 8 explores further.

In the next chapter, the concept of *openness* will be explored in depth to show how the affordances of digital technologies can be combined with a desire for a more equitable system of access to knowledge. At this stage of the thesis, it is now clear that open access has strong historical precedents in terms of expanding access to knowledge to larger publics. However, in Chapter 4 the particular form of ‘openness’ enabled by digital technologies is shown to have specific characteristics that introduce new possibilities for mass access to knowledge, as well as new political complications that are related to the neoliberal ideology analysed in Chapter 5.

Chapter 4. Understanding Openness

The two previous chapters have examined the historical development of institutions and processes that are involved in creating and distributing academic research. This has helped to contextualise the main topic of this thesis, open access, by showing where the impetus for a new way of doing things has come from and demonstrating what open access is a reaction against. Before going into detail about the political and policy side of open access in subsequent chapters, this chapter builds on the overview of open access given in Chapter 1 by thoroughly examining just what is meant by the ‘open’ part of the term open access. The importance of *access* does not disappear from this discussion, not least due to the sometimes exclusionary nature of participation in open movements, as discussed below. However, since openness is a term with a variety of meanings and connotations, it is important at this stage of the thesis to have a clear understanding of the origins and meanings of openness in the particular sense used by the open access community.

To begin this discussion of openness, a natural starting point is free and open source software (F/OSS).⁸⁰ The use of the word *open* in later movements⁸¹ (open access, open data, open education, etc.) originates here, and the form and rhetoric of contemporary open movements draw heavily on advocacy for open software. It is within the free and open source software movement that several crucial aspects of openness are first encountered: the importance of copyright and licensing to creativity in the digital age; the distinction between free and open, and the sometimes antagonistic arguments surrounding these terms; and the formation of strong global communities of advocates connected by the digital technologies that make ‘open’ possible in the first place. As Kelty argues in his ethnography of the F/OSS community *Two Bits*, it is not the software itself that is culturally important but the practices involved – of ‘sharing source code, conceptualizing openness, writing

80 The acronym FLOSS is sometimes used, which stands for ‘free/libre open source software’.

81 By ‘later’ I mean they were *self-understood as movements* later. For example, the Open University was founded in the 1960s with the aim of expanding access to higher education, but open education came into its own as a movement in the 2000s (Weinbren 2014; Weller 2014: 34–43). See also Chapter 1, note 3. Weller et al. (2018) argue that the distinction between open education of the 1960s and ‘70s, and the more recent F/OSS-inspired open education movement, is not as clear-cut as presented here. However, the premise of this chapter is that for openness to be understood a distinct concept, the license-centric view – in which the legal permissions afforded by open licenses are a key part of how openness is defined – is a very useful way to understand the politics of openness.

copyright (and copyleft) licences, coordinating collaboration, and proselytizing for all of the above’ – which represent a ‘reorientation of power with respect to the creation, dissemination, and authorization of knowledge’ (Kelty 2008: x, 2). Kelty’s book focuses extensively on the ‘modulation’ of free software to other domains, and in this chapter the relationship between F/OSS and open access will be outlined in detail. The ‘reorientation of power’ Kelty describes places openness within the historical tradition of expanding access to knowledge that was the focus of the previous two chapters.

This chapter will primarily address the nature of openness, and the politics of openness will be at the forefront throughout. By understanding the history of openness – *how* and *why* it developed into an identifiable concept with widespread support – it becomes clear that it cannot be understood without reference to the political. Examining the extent to which openness can be placed within the liberal tradition provides a crucial backdrop to Chapters 5–7 that examine neoliberalism and its effect on open access policy. In addition, the final section of this chapter (‘Systems of openness and control’) can be read in parallel to Chapter 5, which discusses issues around freedom and centralised control within neoliberal ideology. By comparing these two kinds of freedom or openness – firstly as advocated by the F/OSS (and related) communities, and secondly as advocated by neoliberal theorists – the complexity of the ‘openness’ that underlies open access is laid bare.

Free and open source software

The origins of the free and open source software (F/OSS) movement can be traced back to the mid-1980s and the work of Richard Stallman.⁸² By this time, software development was a well-established domain of activity, as digital computing had advanced considerably since its beginnings around the time of the Second World War. In those early decades of computing (1940–70s), software was generally written and used by people in universities or the military, as well as in some private

82 This thesis tries not to place too strong an emphasis on particular charismatic personalities, especially ones as problematic as Stallman (see Byfield 2009; Geek Feminism Wiki [n.d.]; Reagle 2013). However, the influence Stallman had on open movements has to be recognised as significant.

companies,⁸³ and it was not yet explicitly covered by intellectual property law⁸⁴ so users were free to share and adapt source code as they wished (Coleman 2012: 64–65). Therefore in the early days of computing it was assumed that software was not ‘locked down’ and engineers would be able to examine source code and modify it. One project that exemplified this stance was UNIX, a modular⁸⁵ operating system originally created by the researchers Dennis Ritchie and Ken Thompson at Bell Labs⁸⁶ in the early 1970s (see Salus 1994). The culture of UNIX development encouraged sharing and modification, leading to a variety of different UNIX versions (Ceruzzi 2003: 283–85; Moody 2001: 13–14, 142–44). However, during the 1970s the commercial side of software development became more important and some programs began to be released under copyright,⁸⁷ thus with legal restrictions on sharing and usage – a practice enabled by new intellectual property legislation in the US (Coleman 2012: 65–68; Samuelson 2011). It was during this era (late 1970s/early 1980s) that Stallman began his politically-oriented work as a reaction against what he saw as an encroaching enclosure of source code. Stallman used the term ‘free software’ to name the kind of work he was advocating (see also Stallman 2002). The Free Software Definition was originally written by Stallman and is maintained by the Free Software Foundation, a non-profit organisation that he founded in 1985, and is a clear statement of intent (Free Software Foundation 2015):

A program is free software if the program’s users have the four essential freedoms:

- The freedom to run the program as you wish, for any purpose (freedom 0).
- The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
- The freedom to redistribute copies so you can help your neighbor (freedom 2).

83 The first personal computer available for general sale was the Altair 8800, released in 1975 (Abbate 1999: 137; Ceruzzi 2012: 105), so before this date computing took place almost entirely within institutions.

84 Although software was not explicitly covered by legislation at this time, as a creative output it could potentially have been treated as intellectual property in the courts.

85 See Russell (2012) for more on the importance of modularity to the design of computer systems.

86 Bell Labs was the research division of the US telecommunications company AT&T.

87 In 1976 Bill Gates published an infamous ‘open letter to hobbyists’ in which he accused them of stealing Microsoft’s software when they copied it without paying (see Weber 2004: 36–37).

- The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

The first free software license was the GNU General Public License (GPL), created by Stallman (Kelty 2008: 15; 189). Perhaps even more so than his considerable work as a coder (see Levy 1984: 426), Stallman's key innovation was 'hacking' copyright to create copyleft. Stallman created a license – the GPL – that builds on existing copyright law by allowing creators to give extra permissions in the use of their work – permission to use, reuse, and modify the code – so long as the same conditions are maintained in subsequent copies and modifications (Kelty 2008: 182; Moody 2002: 26–27).⁸⁸ If copyright is 'the right to exclude and control' (Coleman 2012: 1), then copyleft aims to give permission to act freely. The kind of freedom intended by Stallman is summarised in his oft-quoted aphorism: 'free as in speech, not free as in beer' (see, for example, Free Software Foundation 2015). In other words, his concern was with freedom in the realm of ideas, rather than freedom from monetary cost. A wide variety of other software licenses have been created since the GPL, such as the even more permissive BSD (Berkeley Software Distribution) license and the MIT License. These licences allow people to use or modify the code however they wish, including – unlike the GPL – incorporating it within proprietary software. Open licensing became an essential component of both F/OSS and the other open movements that followed (see below).

Much of the internet's technical architecture is run on F/OSS, including Apache web servers, the Sendmail email routing program, and BIND Domain Name System (DNS) software (Moody 2002: 120–30). The operating systems used on desktop PCs and laptops for consumer use, on the other hand, are dominated by the proprietary Microsoft Windows OS (Statcounter 2018). However, for mobile devices, the Linux-based Android operating system is now run on more internet-enabled devices than any other (Gartner 2016; Statcounter 2018a). Linux is a Unix-based operating system, begun by Finnish programmer Linus Torvalds in 1991, which is licensed

⁸⁸ This contrasts with 'shareware', which is proprietary software that creators allow to be shared freely but remains under copyright and users are expected to make a voluntary donation to the creators (Hui, You, and Tam 2008).

under the GPL. The creation of Linux was a pivotal moment in F/OSS development: ‘Unhitched from the sole province of the university, corporation, and stringent rules of conventional intellectual property law, Linux was released as a public good and was also produced in public fashion through a volunteer association’ (Coleman 2012: 34). The collaborative process used for Linux development, in which Torvalds received code contributions from numerous developers from across the world, became frequently adopted by other F/OSS projects (Kelty 2008: 212–22). By the late 1990s this distributed development process had become so common in the F/OSS community that it could be seen to be almost as fundamental to F/OSS as open licensing. In fact, histories of F/OSS are often centred around these two key facets: firstly, the practice of sharing source code under open licenses (with discussions on the history of copyright and political arguments around intellectual property); and secondly, new decentralized methods of organising labour outside of market incentives or hierarchical organisational structures.⁸⁹ For instance, Weber (2004) discusses the interplay of a new intellectual property regime based on permissions rather than exclusion, and the new collaborative organisational structures that both arise out of, and create, a new mode of governance.

Although the activism of developers like Stallman highlighted a tension between the culture of programmers and the commercial imperatives of businesses that owned and sold software, the political perspective embodied by free software was not shared by all software developers (see Dedrick and West 2007). Indeed, within F/OSS communities, as within libraries (Shockey 2016), there is frequently a tension between advocates for individual freedom and social justice. Stallman falls firmly into the first camp: ‘Stallman did not launch a radical politics against capitalism or frame his vision in terms of social justice. Rather, he circumscribed his political aims, limiting them to securing a space for the technocultural values of his passion and lifeworld— computer hacking’ (Coleman 2012: 70). Delfanti (2013: 139) has also written of hackers’ fondness for capitalism, arguing that ‘hacker cultures do not seem to be the object of capitalism’s co-optation or absorption. Rather, they seem to have a constitutive role in the evolution of digital capitalism’. Russell agrees with this perspective, stating that ‘The ideals of openness fit equally as comfortably in the spirit of entrepreneurial capitalism as they do in the liberatory impulse of the hacker ethic’ (Russell 2014: 280). And Dedrick and West

89 See Eghbal (2016) for discussion of some problems arising from the lack of labour organisation within important open source projects, and Iannacci and Mitleton-Kelly (2005) for a theoretical exploration of open source organisational structure in terms of complexity theory.

(2007) have reported that it is really the zero-cost nature of F/OSS software, rather than any other freedoms, that have driven a lot of the uptake of F/OSS software within the commercial sector. Andrew Ross also argues that most hackers are not driven primarily by a sense of justice; theirs are “voices proclaiming freedom in every direction, but justice in none” (Ross 2006: 748).⁹⁰

In light of these differences of opinion, an alternative way of referring to free software was sought that would be more appealing to commercial users. The term *open source* was thus coined in 1998 by Christine Peterson – president of the Foresight Institute, a nanotechnology non-profit (Moody 2002: 167; Open Source Initiative 2012) – and popularised by libertarian developer Eric Raymond to distance the movement from Stallman’s ideological stance, and to explicitly make F/OSS software more attractive to commercial users (Schweik 2011: 282; Weber 2004: 114). An Open Source Definition was subsequently published by the Open Source Initiative (2007), an organisation founded to promote the use of the term ‘open source’ and encourage uptake of F/OSS software more widely, including by business and government (Open Source Initiative 2012). As Coleman (2012: 79) has argued, by this ‘linguistic reframing’ of replacing ‘free’ with ‘open’:

They wanted the word open to override the ethical messages and designate what they were touting simply as a more efficient development methodology. They knew, however, that creating a new image for open source would “require marketing techniques (spin, image building, and re-branding)” (Raymond 1999, 211) — a branding effort that some of the participants were more than willing to undertake.

Raymond makes his attraction to free-market capitalism explicit in his writing (2001: 52–54, 107) and makes the analogy that free software collaboration and free markets are both self-organising systems:

90 Coleman, however, complicates this perspective: ‘If Ross faults free software for its supposed political myopia, others shine a more revolutionary light on free software and related digital formations, treating them as crucial nodes in a more democratic informational economy [...] If one position demands purity and a broader political consciousness from free software developers, the other position veers in the opposite direction: it has free software perform too much work, categorizing it and other digital media as part of a second coming of democracy, shifting in fundamental ways the social and economic fabric of society’ (Coleman 2012: 63).

The Linux world behaves in many respects like a free market or an ecology, a collection of selfish agents attempting to maximise utility, which in the process produces a self-correcting spontaneous order more elaborate and efficient than any amount of central planning could have achieved.

(Raymond 2001: 52)

Raymond's allusions to self-organisation have been critiqued by Weber (2004: 131–33) who argues firstly that the term is used as a kind of 'black box' to sidestep the need to provide more detailed explanations of *how* organisation arises out of individual actions, and secondly that self-organisation is claimed as a 'natural', essentialist process with which we should not interfere⁹¹ – a claim which conveniently aligns with Raymond's political perspective. If organisation is seen as spontaneously and naturally arising, then scrutiny of power relations is deemed unnecessary. Raymond attempts to back up this stance by claiming that the only kind of power is overt coercive power, so in voluntary free software development, power relations simply do not exist (Raymond 2001: 51). This is an argument often used in right-wing rhetoric which ignores the diversity of meanings of power (see Cairney 2012: 48–49), and will be re-visited in the next chapter with regards to neoliberal ideology. Furthermore, in the quotation from Raymond given above, the choice of Linux for his analysis is particularly ironic, because Linux, as with many F/OSS projects, ultimately reflects significant centralisation of power because the final decision regarding what code is included in the kernel rests with Torvalds alone.

The terminological distinction between *free software* and *open source* highlights the ideological difference between the two approaches. Free software is used to highlight the 'freedom' aspect, and Stallman has been the most vocal and persistent advocate for its use (see Free Software Foundation 2015a [1985]). As Mako Hill has put it, free software advocates are really concerned with freedom for people, not software (Mako Hill 2012: 305–08). As mentioned above, the forking of free software and open source occurred in 1998 (Kelty 2008: 99) when open source was coined as a 'non-political' alternative term which de-emphasised the freedom aspect. In promoting this term, Eric Raymond 'emphasize[d] the centrality of the

91 Raymond uses naturalistic claims throughout his writing, for instance arguing that the 'gift culture' used by hackers is the 'optimal social organization for what they're trying to do, given the laws of nature and the instinctive wiring of human beings' (Raymond 2001: 107).

novel forms of coordination over the role of novel copyright licenses or practices of sharing source code' (Kelty 2008: 109). However, the F/OSS divide between 'moral and utilitarian logics' is usually blurred (Coleman 2009), and Moody has argued that the tension between the two camps in the pragmatist/idealist divide has actually been essential for driving progress (Moody 2002: 256, 259).

Coleman explicitly places the ethos of F/OSS within the liberal tradition. In particular, since the 1990s the F/OSS community increasingly focused on the importance of free speech ('code is speech'), during which time 'the link between free speech and source code was fast becoming entrenched as the new technical common sense among many hackers' (Coleman 2012: 2–3, 9). Although Coleman argues that the hacker critique of intellectual property was a critique of neoliberalism, it is notable that a close ideological cousin of neoliberalism – libertarianism – also has a strong presence in the internet social imaginary (see Borsook 2000; Mathew 2016), as demonstrated by Raymond's political views. Libertarianism is a political philosophy that advocates absolute minimal involvement of government in individual's lives (Brennan 2012). Yet on occasion, hacker politics has a socialist tinge: hackers insist 'on never losing access to the fruits of their labor— and indeed actively seeking to share these fruits with others [...] free software developers seek to avoid the forms of estrangement that have long been nearly synonymous with capitalist production' (Coleman 2012: 15). Coleman goes on to say that: 'While developers enunciate a sophisticated language of freedom that makes individual experiences of creation intelligible, their language also elaborates on ideals that are more collectivist and populist in their orientation— such as cooperation, community, and solidarity' (Ibid., p. 44). The complex interplay of individualism and collectivism expressed in the politics of the F/OSS community is perhaps a defining feature of openness, and can be seen in other open movements such as open access.

This section has outlined the origins of F/OSS, the first open movement, and explored the difference between the terms free and open in this context. In the following section, the concept of openness will be analysed further in order to deepen the understanding of what it is and where it came from. The correlations between F/OSS and open access will help to show how openness came to be relevant to academic publishing.

The concept of openness

The term ‘open’ has now been applied to numerous domains beyond open source, including open access, open education, open data, open government, and open science (see Pomerantz and Peek 2016). In this section, the commonalities between these different areas are explored in order to move towards a more thorough understanding of just what is meant when people use the word open in this sense. As will become clear, the term is a complex one that evades simple definition. Weller makes this explicit and accepts that ‘it is a vague term, with a range of definitions, depending on context’ and prefers to consider a range of motivations for openness: increased audience, increased reuse, increased access, increased experimentation, increased reputation, increased revenue, and increased participation (Weller 2014: 29–30).⁹² This breadth of motivations for openness goes some way to explaining the divergent approaches to achieving it. For instance, those who have attempted to define open rigidly have often taken a content-driven perspective. This is particularly clear in the the Open Definition (see Open Knowledge International [n.d.]) which was created by Open Knowledge, formerly known as Open Knowledge Foundation (OKFN), an organisation which is involved in all of the areas discussed in this chapter. Summarised as ‘Knowledge is open if anyone is free to access, use, modify, and share it — subject, at most, to measures that preserve provenance and openness’, the Open Definition makes frequent declarations of what an open work *must* do. It also states that ‘this essential meaning matches that of “open” with respect to software as in the Open Source Definition and is synonymous with “free” or “libre” as in the Free Software Definition and Definition of Free Cultural Works.’⁹³ The fact that the Open Definition claims to be equivalent to the definitions for both free software and open source software shows just how much a content-centric definition leaves out – as shown in the previous section, while free software and open source may often reach the same result at a practical level, they have highly divergent meanings. Furthermore, as Neary and Winn (2012: 409) point out, concentrating on ‘the freedom of things’ rather than ‘the freedom of labour’ risks mistaking what is really important about open movements. Since relying on a static

92 Openness has also been defined by what it is *not*; in Kelty’s words, ‘The opposite of an “open system” [is] not a “closed system” but a “proprietary system”’ (2008: 149).

93 The Open Source Definition and Free Software Definition were both mentioned in the previous section. The Definition of Free Cultural Works was a later attempt to define free content (Freedom Defined 2008).

definition for openness written by self-appointed experts at a particular moment in time is problematic,⁹⁴ especially given that openness to participation is generally regarded as central to the concept, the rest of this section will look to a range of perspectives across different domains to provide a more expansive view of openness.

Openness is closely related to the legal ownership status of works. It can be argued that licenses – legal documents that assign certain rights or permissions to determine what people are allowed to do with a work – are an essential part of all open movements. This is a particular interpretation of openness, however, and is questioned by those who argue that early initiatives such as the Open University, founded before open licenses existed, should also be considered as part of the open education movement (see Weller 2014: 35). Nevertheless, open licenses often form a central pillar of open definitions. As with so many aspects of openness, it was in the F/OSS movement that the first open licenses were developed (see above) and by the turn of the twentieth century software developers often had to be legal experts on intellectual property (Coleman 2012: 63, 86–88, 162–68). The most important development in licensing for the spread and harmonisation of open movements was the launch of Creative Commons and its suite of licenses. Founded in 2001 by legal scholar Larry Lessig, Creative Commons released its first set of copyright licenses in 2002 (Creative Commons [n.d.]) and these have now been through multiple iterations.⁹⁵ They are based on the principle of ‘some rights reserved’, which means that they build on top of the ‘all rights reserved’ position of copyright by allowing additional permissions (Lessig 2004: 283). The only Creative Commons licenses that follow the copyleft principle of the GPL are the ‘share alike’ licenses (CC BY-SA and CC BY-NC-SA) that allow people to copy and adapt works so long as the same license is maintained for any copies or derivatives; the most notable use of the

94 Gray (2014: 23) made this point well with regards to open data, that ‘it is not a free-floating, ahistorical concept, but a malleable idea whose meaning is continually reconfigured’.

95 The six licenses, in descending order of permissiveness, are the Creative Commons Attribution license (CC BY), Creative Commons Attribution ShareAlike license (CC BY-SA), Creative Commons Attribution Non-Commercial license (CC BY-NC), Creative Commons Attribution NoDerivatives license (CC BY-ND), Creative Commons Attribution Non-Commercial ShareAlike license (CC BY-NC-SA), and the Creative Commons Attribution Non-Commercial NoDerivatives license (CC BY-NC-ND). The current version is 4.0 so the full name of each license is, for example, Creative Commons Attribution 4.0 International (CC BY 4.0). The organisation also provides the Creative Commons Zero Public Domain waiver (CC0) – this is not a license, but a legal waiver to all legal and moral rights to a work in order to release it directly into the public domain.

CC BY-SA license is for Wikipedia. The Creative Commons Attribution license (CC BY) is the most permissive license available and is the one most commonly used for open access (Redhead 2012).

Indeed, licensing is generally an integral component of attempts to define open access. Eve draws on the BBB (Budapest, Bethesda, and Berlin) definitions, as mentioned in Chapter 1, and also the work of Suber, to claim that ‘regardless of the nuances and complexities [...] ‘open access’ can be clearly and succinctly defined. The term ‘open access’ refers to the removal of price and permission barriers to scholarly research’ (Eve 2014: 1). This does indeed provide an accurate definition, though only if the ambiguity of the term ‘removal’ is accepted; there has been vigorous debate within the open access movement as to whether the absolute removal of *all* permission barriers is necessary before a state of open access is reached and the term can be used, or whether a removal of *some* barriers in a process of ‘opening’ is acceptable. This has resulted in some open access advocates arguing that if a work is not licensed as CC BY then it is not truly open access (e.g. Graf and Thatcher 2012), a position which would unfortunately include a significant proportion of works that have been archived in institutional repositories. Others, such as Peter Suber (and the original BOAI declaration), argue for a more flexible interpretation which would allow licenses such as CC BY-NC and CC BY-ND to be considered open access (Suber 2011: 171–72).

Open access was inspired by F/OSS (Weller 2014: 47), and the two domains are related in ways that go beyond just licensing, as Willinsky (2005) demonstrates. This is particularly clear in the parallels between the two domains in arguments around free versus open. In F/OSS, free refers to the *freedom* to do what you like with the software and places the emphasis on ethical and political dimensions of software, whereas open refers only to legal status, with open source proponents emphasising software development models (Kelty 2008: 109) and making no overt moral claims about freedom. But for academic research, the ethical arguments are reversed: it is the term ‘open access’ that refers to work that is openly licensed with liberal permissions and is the site of an ‘open access movement’ that places focus on social justice issues and makes political and ethical claims (see Chapter 1), whereas the term ‘free access’ is used to refer to publications that are free-to-view online but not openly licensed. Even so, whether open access advocates use ethical or utilitarian logics in their arguments – and as with F/OSS, use of these differing

logics does not always fall neatly into opposing camps – does not change the importance of open licensing, because those who are more concerned with doing ‘better science’ (see Kansa 2014, Molloy 2011) than with social justice still advocate liberal licensing and especially the use of CC BY. Indeed, this question – of whether or not it matters that either instrumental or ethical arguments are used to achieve open access if the practices are the same – is also raised in the similar arguments within F/OSS communities. In general, F/OSS ideology values ‘what works’ over planning – as Kelty (2008: 222) puts it, ‘adaptability is privileged over planning’⁹⁶ – and the lack of precise goals is considered a virtue.⁹⁷ Disparate political positions can result in identical practices in terms of software creation (Stallman 2016 [2007]), and as Kelty (2008: 117) states:

If two radically opposed ideologies can support people engaged in identical practices, then it seems obvious that the real space of politics and contestation is at the level of these practices and their emergence. These practices emerge as a response to a reorientation of power and knowledge, a reorientation somewhat impervious to conventional narratives of freedom and liberty, or to pragmatic claims of methodological necessity or market-driven innovation. Were these conventional narratives sufficient, the practices would be merely bureaucratic affairs, rather than the radical transformations they are.

Once again, the potential for a ‘reorientation of power and knowledge’ is at the heart of the political discussions surrounding both F/OSS and open access. This signals a deep connection between the two ‘movements’ and suggests that open access advocates could learn from the experiences of the earlier work undertaken by F/OSS communities. One such lesson to be learned is regarding the speed of adoption by mainstream practitioners. So far, the progress of open access has been consistent but

96 A phrase that echoes the opposition to planning found in the writings of neoliberals such as Hayek, as discussed in the next chapter.

97 This may be an oversimplified description, especially when considering the larger F/OSS projects. For example, Coleman has argued that developers of Debian, a version of Linux, ‘have cobbled together a hybrid organizational structure that integrates three different modes of governance—democratic majoritarian rule, a guildlike meritocracy, and an ad hoc process of rough consensus’ (Coleman 2012: 126). Debian has even formalised an ethical stance via its Social Contract and the Debian Free Software Guidelines.

slow, with an annual growth rate for gold open access of an estimated 18% per year during 1996–2012, which translates as around one percentage point per year (Archambault et al. 2014: ii–iii). And despite decades of progress and widespread adoption in the policy environment (such as through research funder mandates) there is little chance of a 100% open access scholarly communication system in the near future; proclamations such as Austria’s 2015 announcement that they are aiming for 100% gold open access by 2025 (Bauer et al. 2015), or the OA2020 initiative which sets a date of 2020 for the same goal (EU2016 2016; see also European Commission 2018), are aspirational and not realistic goals. When this level of progress is compared to F/OSS, it should not be surprising. After 30 years, Linux servers dominate the web infrastructure and Linux-based Android dominates mobile, but there is still a mixed economy of open and proprietary software with both existing and prospering simultaneously (Weber 2004: 37). There is no indication that either open or proprietary software is likely to achieve 100% of the user base in the near future. This recent history could act as a cautionary tale for those open access advocates whose enthusiasm leads them to overlook the considerable difficulties in supplanting a well-established industry.

So far in this section, the commonalities and shared history between F/OSS and open access have highlighted some important features of ‘openness’ in this context. To introduce further nuance to an understanding of openness, a useful way of distinguishing between different instances of the word open is the typology of openness used by Corral and Pinfield (2014) – open content, open process, and open infrastructure. Content refers to ‘stuff’ (whether physical or digital) and its availability; process includes openness to participation; and infrastructure includes the systems and standards that undergird other activity. This typology can help to clarify links between different open movements. For example, a key difference between open source and open access is that open source is first and foremost a development methodology – a means of organising labour. Open access, on the other hand, is much more strongly focused on content. Perhaps a closer parallel between open source and openness within academia can be found in ‘open science’, or open research, which is the name given to the attempt to make the entire scientific process more open at every stage such as through using open lab notebooks, preprints, and open data (Pontika et al. 2015). Indeed, Delfanti (2013) has explicitly drawn links between the ‘hacker ethic’ and the practises of contemporary science. Fecher and

Friesike (2014: 17) have identified five different ‘schools’ of motivations for open science:

- Infrastructure school (which focuses on the creation of open platforms, tools, and services).
- Public school (with a focus on non-expert participation and comprehension).
- Measurement school (which seeks to develop alternative metrics for scientific impact).
- Democratic school (which seeks to make the products of research accessible to all).
- Pragmatic school (with a focus on improving the efficiency of knowledge generation).

The variety of motivations displayed in this typology is familiar when compared to the literature on open access. The ‘democratic school’ is closest to the political stance identified in Chapter 1 as put forward by those open access advocates who are motivated by a sense of social justice. Despite the multiple motivations and political perspectives outlined by Fecher and Friesike, the fact that they are so similar to the contrasting positions found in other open domains could be taken as confirmation of the commonalities between these domains (open access, open research, F/OSS, etc.). Therefore it could be argued that openness, in this sense, has a coherent meaning that can transcend cultural boundaries. Although there are limits to this cultural translation – as Hathcock (2016; see also Morsi 2016) reminds us, ‘the term “open access” has no direct translation in Arabic and [...] the concept varies depending on culture and country’ – it can be seen in the proliferation of other open movements in recent decades, such as open data and open education. Although there is not space in this thesis to discuss these areas in any detail, the next section highlights some of the common features – in theory and practice – that position them in close relation to the openness of F/OSS.

Open education and open data

Open education encompasses a variety of practices broadly centred around open content, such as open educational resources (OER) and open textbooks, and open

process, such as open pedagogy – although these divisions are often blurred. For instance, MOOCs (Massively Open Online Courses) are distance-learning courses delivered online with no formal barriers to participation that use open course materials (Weller 2014: 4–7). One notable set of principles that outlines what counts as open education is Wiley’s 5Rs of Reuse ([n.d.]):

1. Retain – the right to make, own, and control copies of the content (e.g., download, duplicate, store, and manage)
2. Reuse – the right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video)
3. Revise – the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)
4. Remix – the right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup)
5. Redistribute – the right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend)

These ‘5Rs’ are all concerned with content, but primarily with what people can *do* with content. The fact that they are framed as rights (‘the right to ...’) shows the influence of F/OSS ideology on how intellectual property is viewed; it is important for open education that explicit permissions are integral to the copyright status of content through the use of open licensing. However, open educational practices are not just about the digital – they are also related to increasing access and widening participation (Bali 2017, Knox 2013). Although there is now evidence for the positive impact of open education (Weller et al. 2017), some claims about the potential of MOOCs to widen participation have been overblown, since ‘the claim that MOOC significantly increase access to education by extending opportunity to those demographics which are less represented in formal education systems has been shown to be highly problematic when most MOOC learners tend to be white, relatively wealthy, and most likely already in possession of (at least) an

undergraduate degree' (Farrow 2015: 134; see also Reich and Ito 2017).⁹⁸ This shows that open education will not inherently increase equity of access to higher education, so as Bali (2017) has argued, practitioners should aim to place 'open' within a community context, focusing on practice and pedagogy to be open to the community within which an educational institution sits. Farrow (2015: 139–41) has also argued for the potential of open education to align with critical pedagogy: by 'opening up the processes of generation and use of educational resources to a greater variety of actors', through 'the decentralization and democratization of control over knowledge production and pedagogy afforded by open licensing', and by directly engaging with issues around power relations.

On the other hand, as with other open movements, open education has attracted significant attention from the tech industry. This is most strongly evident with the hype surrounding MOOCs and their potential to 'fix' a 'broken' education system, in what Weller has termed the Silicon Valley narrative (Weller 2014: 117–33). From this perspective, technology is seen as a neutral instrument to facilitate increased access to education rather than as socially-constructed artefacts that can affect the learning process itself (Knox 2013: 23–24). Online distance-learning start-ups such as Udacity and Coursera are for-profit organisations that aim to 'disrupt' traditional education, following Christensen's ideas about 'creative disruption' (Christensen and Raynor 2003). The dangers and failures of this model have been outlined by Watters (2017; see also Selwyn 2015), who is particularly scathing of the suitability of using hyper-capitalist organisations such as Uber as a model for education. Furthermore, Knox has argued that MOOCs now show 'increasing complicity with powerful political and economic forces that influence the education sector', as 'the drive to monetise MOOCs is foregrounding vocational offerings and corporate training, contributing to the increasingly economic and transactional framing of higher education' (Knox 2017: 403). While the hype surrounding MOOCs may have faded somewhat over the past few years, they have become an embedded part of the higher education landscape, with some traditional universities taking a keen interest and 'disruptive' companies still forcefully trying to turn a profit.

The content-focused and profit-driven nature of such enterprises contrasts strongly with the ethical drivers for open education described by Biswas-Diener and

98 The term 'MOOC' is used as both singular and plural in this article, to mean both Massively Open Online Course and Massively Open Online Courses.

Jhangiani (2017: 4–5):

The open education movement offers one possible, partial remedy to educational inequality. The most obvious benefit of open education is in its low cost. [...] The open education movement can also help raise the quality of education for all students because instructors are better able to share and build on one another's pedagogical innovations. It is here, in the second sense of 'open,' meaning customizable by and shareable among instructors, that we have the potential to design more engaging, locally relevant, interactive, and effective teaching resources.

It is for precisely these reasons that open education often seems like a crusade. It is a values-based and mission-driven movement every bit as much as it is practical and technological. The voices of open advocates and champions are often impassioned in the way typical of people who are in the throes of rapid and successful social change.

So it is clear that the various motivations for open education, as with F/OSS and open access, range from practical concerns about effectiveness of resources through to ethical concerns regarding equity. The similarity of rhetorics – and the blurring between them – across these different 'open' communities is further evidence that the politics of open is of a particular kind that can be analysed as a concept in itself. For a final example of this, before moving on to the next section about political *closure* and control in the digital realm, a brief look at open data will help to further tease out the complex politics of openness.

Open data is hard to define without resorting to tautology – it is about opening up data, with 'open' used in the same sense as throughout this chapter, and 'data' referring to a set of quantitative or qualitative facts, statements, measurements, or statistics. Different categories of open data – such as open research data, open government data, open financial data, or open health data – often overlap, and form part of broader issue areas. Open government data, for instance, is part of *open government*, which includes people working on a range of issues, such as access to law, Freedom of Information, and increasing levels of democratic participation (Wirtz and Birkmeyer 2015). As seen in other open communities, the umbrella term

of open government includes both open content (e.g. data government data) and open process (e.g. open policy-making). It is exemplified by the Obama administration's Open Government Initiative: 'We will work together to ensure the public trust and establish a system of transparency, public participation, and collaboration. Openness will strengthen our democracy and promote efficiency and effectiveness in government' (Obama 2009). The relationship between open government data and neoliberalism has been explored by Bates (2013, 2014), who sees the UK's coalition government support for open government data as intricately linked to its privatisation agenda (see also Gray 2014). While proponents of open government data argue that 'non-personal data that is produced by public bodies should be opened for all to re-use, free of charge, and without discrimination' (Bates 2014: 390), in order to strengthen democratic participation, the open government agenda 'is also being used strategically, and often insidiously, by the UK government to fuel a range of broader and more controversial policies, which are aimed at the continuation of the neoliberal form of state' (Ibid., p. 394). This relationship between openness, transparency, and neoliberalism will be returned to when analysing the UK government's support for open access in Chapter 7.

In terms of research and scholarship, open data (see Moore 2014) can be seen as a corollary to open access – one is about providing access to research publications, and the other is about providing access to the data that is produced, collected, and analysed in the process of conducting research. As such, open data plays a key role in the broader open science/open research space. Indeed, open data can be used as open educational resources, providing a valuable opportunity for educators and students to enhance data literacy skills (Atenas, Havemann, and Priego 2015).

One sign that openness has become accepted practice within its various domains is its use by corporate marketing departments. The term *openwashing*, a play on greenwashing (whereby corporations pay lip service to environmentalism rather than actually implementing practices to minimize environmental impact, see Dahl 2010), was popularised⁹⁹ by Audrey Watters (2012;¹⁰⁰ see also Wiley 2011) to describe the process whereby proprietary products and services are given an open

99 Is it not clear who first coined the term; it is often attributed to Watters but there is a far earlier reference online (Thorne 2009).

100 This tweet was deleted in March 2017 (see Watters 2017a).

spin. Such marketing practices are not new; indeed, Kelty (2008: 149) describes similar practices occurring in the software industry with regards to open systems in the 1980s. The success of openness in moving so far into the mainstream should be taken as a opportunity for a greater reflexivity on the part of open advocates. As Chapter 1 argued, open access has not yet received sufficient critical attention from within its own community. If the success of open initiatives is only praised and not also critiqued, there is a risk of allowing the future direction of open access to be controlled by whichever ‘school’ – to use Fecher and Friesike’s (2014) term – is most effective at promoting its agenda. A good example of the type of labour that is necessary is demonstrated by the annual international OpenCon conference, which has been attempting self-reflexive critique of its own success, especially regarding diversity, equity, and inclusion (OpenCon 2017). This issue in particular is one that needs greater attention from open communities, since the exclusionary nature of participation in open initiatives has long been recognised (Dryden 2013; Reagle 2013). This exclusion can lead to open initiatives failing to reach their full potential. For instance, with regards to open educational resources, there is evidence that educators in the global South engage with OER at similar rates to those in the global North, but are less likely to find resources that are directly relevant to their local context, because ‘the provision of open content and pedagogy tend to be dominated by English-speaking, developed countries’ (De Los Arcos and Weller 2018: 147). And Almeida (2017: 5) has claimed that ‘when decontextualized from a community, from a discourse, and from an infrastructure of support, OER are less pedagogically effective’. The work of the Open and Collaborative Science manifesto, ‘Towards an Inclusive Open Science for Social and Environmental Well-Being’ (OCSDnet 2017), is valuable here for its emphasis on contextualised and situated openness, and will be returned to in Chapter 8.

So far in this chapter, the meaning of openness has been explored, along with discussion about the origins of the concept and its expression through a variety of contemporary open movements. The complexity of political stances found within open communities has been addressed. Since the overall focus of this thesis is on the ways in which openness – and open access in particular – is related to neoliberalism, it is appropriate at this point to turn to the specific political issue of *control* as it relates to openness. As will be examined in the next chapter, the neoliberal conceptions of liberty and openness focus on their role as instruments of capital, i.e.

as a means for the control of wealth and power. The following section shows how the ‘open system’ of the internet, on which all open movements depend, was forged in circumstances tightly controlled by the US government and continues to display a capacity for enabling centralised control.

Systems of openness and control

John Perry Barlow’s *A Declaration of The Independence of Cyberspace* (1996) clearly expresses the techno-futurist sentiment of much early internet activism:

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

Despite texts such as this, which perpetuated the myth that the internet inherently gives everyone freedom,¹⁰¹ the origins of the internet were in military funding from the US government. The US Department of Defence created ARPA (Advanced Research Projects Agency) in the 1950s to develop technology that would aid the US in the Cold War (Abbate 1999: 36; Edwards 1996: 64, 260–61; Russell 2014: 164). Through strong links with university researchers, ARPA developed various projects, including ARPANET (founded in 1969) to link up different institutions with a computing network (Abbate 1999: 43–46; Moody 2001: 120; Russell 2014: 166; Weber 2004: 33).¹⁰² Computing networks rely on protocols, which Galloway defines as ‘a set of recommendations and rules that outline specific technical standards’ (Galloway 2004: 6), in order to transfer information between different computers. One set of protocols that became essential for digital networking are those used for packet switching, and the history of how these protocols were adopted highlights the closed nature of the development process.

Packet switching is a process that transmits data through networks by

101 Although Cohn (2018) has claimed that Barlow’s position was actually much more nuanced, Glaser (2018) has argued cogently that Barlow’s vision focused on personal liberty and not justice, to the detriment of creating a web free from corporate control. It is worth noting that the *Declaration* was written at Davos, Switzerland, at the World Economic Forum (Watters 2018).

102 ARPANET remained under military governance until 1990 when it was decommissioned (Abbate 1999: 195).

segmenting it into ‘packets’, which can then take different routes through the network before being reassembled in the correct order at their destination. Since packet switching works via a distributed network, it does not rely on any individual node in the network (as long as there is sufficient redundancy) and is therefore more resistant to failure of any particular node (Baran 1960, 1964). The protocols used for packet switching on ARPANET’s successor, the internet, are the TCP/IP protocols originally written by Vint Cerf and Robert Kahn. The development of TCP/IP was initially organised by the Network Working Group, an exclusive closed group comprising of expert network engineers from the organisations – universities and private military contractors – who used ARPANET (Hafner and Lyon 1996: 145–48; Russell 2014: 168–69). The Network Working Group later became part of the International Network Working Group (INWG) which in 1973–76 worked on the TCP/IP protocols with the aim of making them the international networking standard (Abbate 1999: 123–31). However, the international collaborative process of INWG did not lead to the results desired by ARPA, so Cerf and Kahn eventually ‘abandon[ed] the international standards process in order to build a network for their wealthy and powerful client, the American military’ (Russell 2014: 190, 233). The subsequent attempt to create agreed international standards for computing networking through the formal open standards process, the OSI (Open Systems Interconnection) committee founded by the International Organization for Standardization, failed due to the technical and political complexity of the project (Abbate 1999: 172–77; Kelty 2008: 167–71; Russell 2014: 197–228). Instead, it was the internet (then under centralised control) and its TCP/IP protocols that won over. So although many consider the internet to represent a decentralised democratic means of connecting people, it was designed and built in a closed process: ‘the Internet was nurtured in an *autocratic* setting, sponsored lavishly by the American Department of Defense and administered by a “council of elders” who flatly rejected basic features of democracy such as membership and voting rights’ (Russell 2014: 201).¹⁰³

By the late 1980s, there were two distinct modes of governance at work in organisations involved in internet engineering: the autocratic leadership of ARPA-

103 The internet is not the same as the web (or World Wide Web), which was begun by a scientist at CERN, Tim Berners-Lee, as an open system (see Chapter 2). However, services on the web still tends towards concentration of power, in part due to network effects (see Easley and Kleinberg 2010: 449–75; Srnicek 2017: 45–46).

based engineers in institutions such as the Internet Advisory Board (IAB)¹⁰⁴ that made high-level architectural decisions, and the decentralised Internet Engineering Task Force (IETF) that was spun out of IAB as a means to include those engineers who worked on the implementation of networking protocols (Russell 2014: 240–41). The more participatory and consensus-driven approach of the IETF that became the dominant mode of internet governance by the 1990s has been held up as a means of organising that is intrinsic to the internet, but in fact it only emerged after two decades of centralised leadership at ARPA.¹⁰⁵ Despite the fact that the internet was but one potential way for digital networking to be designed and implemented – as opposed to the various other protocols, architectures, and institutional processes that could have occurred in its place given different political circumstances – Russell argues that not only has history been framed to make the internet appear as a singular technical accomplishment, but its evangelists ‘have been able to convince outsiders that the Internet standards process could be a model for future attempts to create a technologically enabled style of open, participatory, and democratic governance’ (Russell 2014: 257–58). This myth has in turn become embedded within the F/OSS social imaginary, in which the organisational strategies of the F/OSS community are positioned as a ‘natural’ way of organising online, even though openness was not a ‘fundamental principle of the internet’s design’ (Russell 2014: 261). It could be argued that although openness is not *inherent* to the internet, F/OSS organisation shows that it *can* be present – the possibility exists, under the right political conditions; but it needs to be actively constructed (much as neoliberal theorists recognise that market freedom needs to be actively constructed, see Chapter 5).

104 Later known as the Internet Activities Board, and then Internet Architecture Board.

105 The origins of the organisational structures of internet governance, in which associations of professionals determine standards by consensus (such as in the case of the Internet Engineering Task Force), were not new or unique to the internet but rather can be traced back to the standards committees formed by electrical engineers in the late nineteenth century US: ‘Standards committees constituted an expansive network of institutions between markets and hierarchies – a network where no one institution had complete control. Of course, not all nodes in this network were equally powerful [...] But even in sectors where ownership was highly concentrated (such as the American telegraph industry after 1866), no single organisation monopolized standardization’ (Russell 2014: 56–57). According to West (2007), ‘Standardization is an important prerequisite to the deployment and use of a shared infrastructure’, whether for transport, energy, or digital network infrastructures. Open standards for digital infrastructure, developed through a process of consensus decision making, are a means of control outside of both centralised control (whether corporate or government) and untrammelled markets (Russell 2014: 19–20, 34).

One of the fundamental issues that arises when discussing the technical standards and governance structures of the internet is that of control and centralisation. Although “decentralised” is sometimes used as an umbrella term for both decentralised and distributed networks (see Institute of Network Cultures [n.d.]), there is an explicit difference between the two terms. In Baran’s (1964) original formulation (see Figure 4.1),¹⁰⁶ a centralised network has a single authoritative centre with all nodes connected directly to the centre and not to each other; a decentralised network has no single centre but consists of multiple centres that each have nodes connected to that particular centre and not to each other; and in a distributed network, each node has an equal relationship to every other node – there is no hierarchical relationship between them so in theory any node could connect to any other node. The internet is structured as a distributed network.

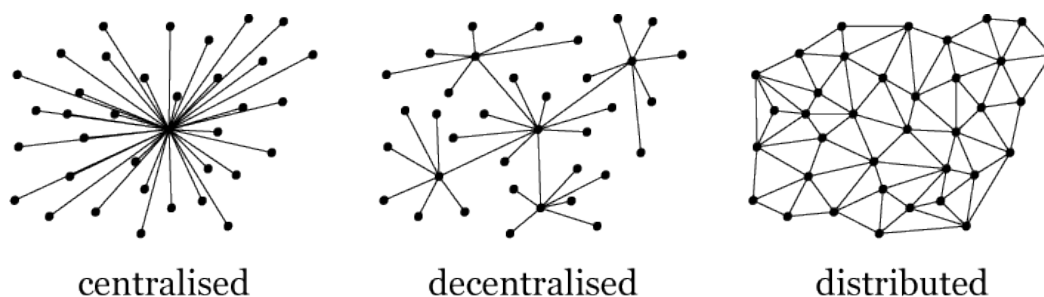


Figure 4.1 – Centralised, decentralised, distributed. Image by 1983~enwiki at English Wikipedia, licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license (<https://creativecommons.org/licenses/by-sa/3.0/deed.en>).

Open distributed systems are sometimes positioned in opposition to, and as a critique of, centralised control. In this view, networked digital technologies comprise a ‘communication infrastructure that has the potential to evade the ability of established authorities to control, censor, or ignore’, and openness ‘conveys independence from the threats of arbitrary power and centralized control’ (Russell 2014: 2).¹⁰⁷ So, in theory, distributed networks result in distributed power. However, this is not necessarily the case – although in a distributed system control may shift, it does not disappear; some co-ordination between nodes is still necessary and so

¹⁰⁶ Figure 4.1 is an openly-licensed image based on Baran’s original.

¹⁰⁷ Other open movements offer a similar rhetoric of wresting control from corporate or government interests (see Farrow 2015: 137; Lawson 2017).

mechanisms exist to facilitate it. Instead of the hierarchical ‘command and control’ methods of centralised systems, in a distributed system control is enacted through protocols (Galloway 2004: 8). Indeed, Galloway refers to protocol as ‘a management style for distributed masses of autonomous agents’ (Ibid., p. 87). In other words, it performs a function similar to the liberal idea of ‘rule of law’ (see Chapter 5), whereby a formal code determines the ways in which people can behave – whether a legal code as in liberalism, or computer code as in a protocol-based network. Thus centralisation and distribution are both techniques of control, and so both may have unequal power relations between different nodes, constituents, or stakeholders. Part of the rhetoric about the supposedly ‘democratic’ nature of the internet results from ignoring the fact that even within a distributed system, some nodes can still have more power than others. For instance, Noble (2018) has demonstrated how racism is encoded within search algorithms, reflecting and reinforcing the biases present in wider society.

There are clear centres of power within the distributed system of the internet as it stands today. Formal centres of power, based on the physical and technical properties of the network, include the Domain Name System (DNS) that acts as the ‘address book’ for the internet and routes users to their desired destination (see Galloway 2004: 9–10; Mockapetris and Dunlap 1988). They also include the control of an individual network; the internet is made up of multiple linked networks, hence *inter-net*, and some of these networks are maintained by agents such as authoritarian states who are to some extent able to exert control over what happens on their network. Benkler has emphasised that ‘As with any flow, control over a necessary passageway or bottleneck in the course of a communication gives the person controlling that point the power to direct the entire flow downstream from it’ (Benkler 2006: 170). As Kalathil and Boas (2003: 1–42, 136–42) have outlined, despite the opportunities offered by internet access to give voice to diverse perspectives, authoritarian regimes such as China have found ways to censor the internet,¹⁰⁸ control access to it, and use it to support their own political aims (see also Lorentzen 2013; Wacker 2003). And Lessig has written about how the internet is far from being the ungovernable space that some cyberlibertarians imagined it to be and

108 Although as Kalathil and Boas describe, the Chinese government asserts control more through regulatory and disciplinary measures to encourage *self-censorship* by users rather than overt censorship of content.

in fact regulation¹⁰⁹ constrains the ways in which the internet can be used by shaping its technical and legal architectures (Lessig 2006: 2–8). So although it is true that the governing protocols of the internet (e.g. TCP/IP) cannot be centralised (Galloway 2004: 11), centralisation can still occur in the network in other ways, particularly by exerting control over the flows of data. This is a lesson that powerful internet companies such as Google and Facebook clearly understand; many of their products are ‘free’ for people to use without monetary payment, but in exchange they require users to give up both their privacy and control of their data. Critics such as Morozov (2012) and Lanier (2014) have long argued that corporate and state surveillance of the internet may well mean that the internet greatly restricts peoples’ freedom, rather than enhances it. The Snowden revelations regarding the extensive surveillance powers of the US (and UK) security agencies have brought these concerns into wider circulation.

Power and control are central concerns of any attempt to understand the effect of the internet on society. As outlined above, the process of protocol design is highly political – control within networks lies not necessarily in the content of messages but rather in the design of the protocols that govern interaction, and in the ability to monitor and analyse data flows. This last point is particularly important for understanding the behaviour of corporations online, including within the realm of scholarly communication. Looking beyond the *content* of scholarly publications to view the digital infrastructure that holds together the scholarly communication ecosystem, a few corporations are showing signs of monopolistic behaviour (Fiormonte and Priego 2016). Perhaps more than any other major publisher, Elsevier has been proactively diversifying its business strategy away from a focus on owning and publishing content and towards piecing together a collection of products and services for use at all stages of the research workflow (Moody 2017; Posada and Chen 2017; Schonfeld 2017). Springer Nature and its affiliated company Digital Science have also been taking this approach. The nature of these corporations’ control of scholarly information flows, and the infrastructure that governs these flows, is highly problematic for critics of the current scholarly communication system who wish to see control in the hands of researchers themselves.

109 Lessig asserts that on the internet, regulation occurs not only through legal mechanisms but also through code itself, hence his phrase ‘code is law’ (Lessig 2006: 5). In this view, political ideals will only be realised through the internet by purposively building them into its architecture.

Conclusion

Openness as understood by the open source, open access, and other ‘open’ communities is a complex concept rooted in various political ideologies from libertarianism to socialism. Although many of the aspects that identify a work or practice as open are related to the liberal tradition, especially when they concern legally-granted freedoms, openness evades easy categorisation in traditional political terms (including binaries such as left/right, or collectivist/individualist). This goes some way to explaining why open practices have been adopted among people from varying political affiliations.

Some central concerns of openness are ownership, control, and freedom. Whether human activity is organised in markets, hierarchies, or distributed networks, these issues are always present – the distributed networks favoured by F/OSS communities may function very differently to either markets or centralised hierarchies, but they are still systems of control in which unequal power relations can exist. As will become clear in the next chapter, neoliberal ideology emphasises a binary choice between free markets and central governmental control, so organisational forms and governance structures beyond this binary – especially as they relate to scholarly communication – will be explored in further detail in Chapter 8 with an analysis of commons.

At this point of the thesis, the social, technical, and economic context within which contemporary open access sits has been considered at length. By 2010, when the open access policy era analysed in Chapter 7 begins, the various open initiatives and communities discussed here were all fairly well established. Given the overall aim of this thesis, and the complex politics of openness analysed in this chapter, it is important to now examine the relationship between openness and neoliberalism (see Tkacz 2012). Therefore the focus will now shift towards the theoretical heart of this thesis, which is an analysis of neoliberalism as it relates to freedom. As the following chapter makes clear, neoliberalism is intensely involved with issues of freedom or liberty, and liberty is conceptually close to openness. However, the kind of ‘open society’ desired by neoliberals is very different from the ideals that many advocates of contemporary open initiatives are striving for. Indeed, I will come to regard neoliberalism as actually representing a form of closure, whereby political

freedom is restricted. In the next chapter, the history and ideology of neoliberalism will be examined in depth, in order to allow for further exploration of the impact of neoliberal ideology on higher education in general and open access in particular.

Chapter 5. Neoliberalism, Liberty, and Openness

Neoliberalism is a complex and diverse phenomenon, to the extent that it may be more accurate to speak of ‘neoliberalisms’. The intellectual history of neoliberalism’s emergence – from German ordoliberalism and the work of Hayek in the 1930–40s, through the Chicago School of the 1950–70s, and onwards towards ‘applied’ neoliberalism from the Thatcher and Reagan administrations to the 2007–09 financial crisis and beyond – has been explored by many scholars (for example Davies 2014, Harvey 2005, Mirowski and Plehwe 2009, Peck 2010, Stedman Jones 2012). This chapter will discuss this history with a particular focus on a theoretical understanding of how *liberty* and *openness* are conceived within neoliberalism. The diversity of neoliberal thought means that any definition of it will necessarily be partial and contested. However, based on the following analysis, I will come to use a working definition of the political project of neoliberalism as the continual expansion of *markets* and *market-derived forms of measurement and evaluation* into all areas of social life.¹¹⁰ This definition is strongly linked to the prioritisation of *economic freedom* over political freedom. This understanding of neoliberalism has direct relevance to higher education and open access policy, as subsequent chapters will make clear.

After beginning this chapter with a discussion of the origins of neoliberal ideas in Austria and Germany, I will analyse the writings of Friedrich Hayek and Karl Popper with a focus on their conception of liberty. Popper wrote *The Open Society and its Enemies* (2003 [1945], 2003a [1945a]) as a defence of democracy against the totalitarian regimes of fascism and communism which he saw as restricting freedom.¹¹¹ Hayek’s contemporaneous work *The Road to Serfdom* (2001 [1944]) placed free markets at the centre of liberal strategies for achieving democratic freedom. For Hayek, free markets will guarantee freedom for individuals – he believed that liberalism necessarily leads to freedom and any other form of political organisation leads inexorably to totalitarianism and thus a closed society (Hayek

110 A market is a coordination mechanism for facilitating the exchange of commodities, in which a price is agreed by buyers and sellers (Callon 1998: 3).

111 The words *freedom* and *liberty* are used interchangeably by writers such as Hayek and Popper and the same applies to this chapter.

2001 [1944], 2006 [1960]; Popper 2003 [1945], 2003a [1945a]; Foucault 2008: 110–11).¹¹² Following further discussion of these ideas, I will move on to the Chicago School and the gradual adoption of neoliberal ideas by policymakers.

In the final section I will focus on the fact that early neoliberal theories concerning the connection between an open society and free markets do not appear to have borne out in reality. Neoliberalism in its contemporary manifestation no longer upholds liberal ideals of freedom and some scholars such as Wendy Brown and Will Davies claim that it threatens the very existence of democracy. Brown (2015) argues that neoliberalism's economisation of all spheres of life results in a *closure* of political and social freedom, so all that remains is freedom restricted to the economic realm. If this argument is correct, then Hayek and Popper's belief that free markets will inevitably lead to a free democratic society is proven false. The uncoupling of neoliberalism and openness would also have strong implications for the open access movement and the policies it pursues, as discussed in later chapters.

The birth of neoliberal theory

The emergence of neoliberalism was a continuation and adaptation of liberalism under new political conditions. One genealogy of neoliberalism that depicts the ways in which it was a continuation of liberalism can be found in Foucault's analysis given in the 1978–79 lectures at the Collège de France. Foucault's work was important for drawing attention to neoliberalism as a concept in need of rigorous scholarly understanding. Later published as *The Birth of Biopolitics* (2008), in these lectures Foucault focused on understanding liberalism as a form of political rationality. For Foucault, the key rationale of liberal political rationality was to set internal limits on the reach of government and to find an optimal balance between state governance and individual freedom. Foucault places the historical emergence of liberalism as occurring in the mid-eighteenth century with the coupling of 'a regime of truth and a new governmental reason', or the market becoming 'a site of veridiction for governmental practice' (Foucault 2008: 33). The history of liberal democracy cannot be separated from the development of free market capitalism; liberal assumptions about what constitutes an 'open' way to organise society are

¹¹² The term *closed society* is defined below in the discussion of Popper's *The Open Society and Its Enemies*.

imbued with notions of what constitutes economic freedom. In this view, liberal political rationality refrained from interfering in markets in order to allow ‘truth’ (‘true’ or ‘natural’ prices) to emerge from the market through the price mechanism. Under this ‘regime of truth’ dominated by economics, with no space for alternative ‘regimes of truth’ (whether they be metaphysical or empirical), the market *is* truth and therefore unquestionable. A version of this liberal political rationality was later pursued in both post-war Germany by the ordoliberals in opposition to what they saw as the overreach of government under Communism, Fascism, and Keynesian economic policy, and by the Chicago School¹¹³ in opposition to US state planning of the Roosevelt era (Foucault 2008: 322). However, the theoretical origins underpinning this resurgence of liberal rationality can be traced back even earlier.

The seeds of neoliberalism can be found in the work of economists in 1920s Vienna, in particular Ludwig von Mises and Friedrich August Hayek (Gane 2014; Plehwe 2009: 11), who were then constructing their ideas of a free market to counter the socialist economics and planning that had become popular across much of Europe (Peck 2010: 39–47; Plehwe 2009: 11). As neoliberalism evolved during the 1930s a strong critique of classical liberal economics was developed alongside the promotion of free markets, and as a result neoliberalism could be positioned as an alternative to the perceived failures of both liberalism and socialism (Denord 2009: 46). Multiple strands of neoliberal theory were already emerging at this early stage with theoretical differences between the Austrian economists, German ordoliberals, and more libertarian perspectives. The following analysis will explore the key ideas of these different strands of neoliberal thought – here referred to by the terms German ordoliberalism and Austrian neoliberalism – especially with regards to liberty.

Ordoliberalism was a school of thought which emerged in Germany from the early 1930s to the 1950s.¹¹⁴ It was developed by economists including Alexander Rüstow, Wilhelm Röpke, and the Freiburg School led by Walter Eucken and Franz Böhm (Böhm, Eucken, and Großmann-Doerth 2017 [1936]; Bonefeld 2012,¹¹⁵ Ptak

113 The ‘Chicago School’ is used as a shorthand to refer to economists who worked or trained at the University of Chicago. See the section ‘The Chicago School and the construction of neoliberal reason’ below for details.

114 The term *ordoliberalism* itself was not used until 1950 (Ptak 2009: 108).

115 The page numbers in references to this article refer to the preprint available at <http://eprints.whiterose.ac.uk/67263/>.

2009: 101). There may have been more similarities than differences between ordoliberalism and Austrian neoliberalism, but ordoliberalism was more concerned with maintaining social order and placed greater emphasis on the role of a strong state to intervene in the conditions which facilitate a free market, such as competition legislation (Ptak 2009: 101–02). Freiburg School economists believed that a liberal market society could only be guaranteed by embedding the necessary economic structures within a constitutional legal framework (Gerber 1994: 25–26, 44).

The term *neoliberalism* was not widely used in the 1930s. In Germany the phrase ‘new liberalism’ (‘Neuer Liberalismus’) was used to describe ideas of economists such as Walter Eucken, Alexander Rüstow, and Wilhelm Röpke (Plehwe 2009: 12), who after the Second World War would become the lead architects of the new German social market economy (Gerber 1994: 58–62; see also Godard 2013: 379–80). It was at the Colloque Walter Lippmann in Paris, 1938 – the first international meeting of the new free market adherents, which brought together economists from Austria, Germany, France, and the US (Hartwell 1995: 20;¹¹⁶ Plehwe 2009: 12–13; Stedman Jones 2012: 31) – that a definition of neoliberalism was first proposed:

- the priority of the price mechanism,
- [the] free enterprise,
- the system of competition, and
- a strong and impartial state.

(Plehwe 2009: 14)

Already by this time there was a division between the German ordoliberalism of Rüstow and Röpke, with its more interventionist bent and desire to leave behind much of classical laissez-faire orthodoxy, and the ‘old liberalism’ of Hayek and Mises whose views at this time were closer to a renewal of liberal ideas rather than a move beyond them to something altogether new (Denord 2009: 49).¹¹⁷ The Austrian

116 Hartwell’s book is the officially-sanctioned history of the Mont Pelerin Society (see below). As a former president of the society, Hartwell’s account provides invaluable detail as to its formation and inner workings, albeit with a clear political bias and a lack of scholarly rigour.

117 Rüstow referred to Mises as a ‘paleo-liberal’ – an unreconstructed nineteenth-century laissez-faire liberal – ‘because of his seemingly unerring faith in the capacity of the market to self-

economists focused on ‘the power of the price mechanism to allow the spontaneous organization of the economic life of autonomous individuals’ (Stedman Jones 2012: 49) and downplayed the importance of regulating any aspect of the market. Despite these differences there was a great deal of agreement at the Colloque Walter Lippmann, especially on the fundamental idea that ‘the state creates the framework within which competition is free’, thus a neoliberal state is ‘a regulator that punishes deviations from the “correct” legal framework’ (Denord 2009: 50). Many of the individuals present at the meeting would later become founding members of the Mont Pelerin Society, an international membership organisation promoting neoliberal ideas that first met in April 1947 (Hartwell 1995: 20–50; Plehwe and Walpen 2006: 30–31; Plehwe 2009: 12–15; Stedman Jones 2012: 31). Initially organised by Hayek (Hartwell 1995: 26), Plehwe argues that the Mont Pelerin Society was vital to the foundation of a coherent ideology that transcended any one particular domain of knowledge (Plehwe 2009: 5; see also Plehwe and Walpen 2006: 31–40) and that close personal ties between Society members were important to maintain cohesion and momentum over time (Plehwe 2009: 21). The presence of University of Chicago economists was key to cementing transatlantic relations, not least due to the influence of the meeting on Milton Friedman (Hammond 2007: 9; Peck 2010: 91).

In the 1930s prominent ordoliberalists such as Rüstow and Alfred Müller-Armack explicitly stated their belief that political freedom should be restricted in the service of the market economy (Ptak 2009: 110–11). Ordoliberalism became a coherent and significant school of thought during the Nazi era (1933–45) and some ordoliberalists were directly involved in the Nazi regime (Ptak 2009: 112–19).¹¹⁸ The authoritarian streak present in their writings is by no means unique to this particular strand of neoliberalism, as discussed below with reference to the Pinochet regime in Chile. On the other hand, many of the leading neoliberal intellectuals were forced to emigrate during the war, lending credence to the claim that ‘neoliberalism was a political

regulate itself’ (Bonefeld 2012: 9, note 11).

118 Hayek himself commented that ‘the way in which, in the end, with few exceptions, [Germany’s] scholars and scientists put themselves readily at the service of the new rulers is one of the depressing and shameful spectacles in the whole history of the rise of National-Socialism’ (Hayek 2001 [1944]: 196). The acquiescence to Nazi rule by some economists was likely opportunistic rather than due to support for Nazi racial policy on its own terms, for example Müller-Armack saw National Socialism as a useful means of social cohesion to support the strong state which he believed was necessary for economic freedom (Bonefeld 2012: 12).

philosophy developed by uprooted intellectuals in exile following the rise of Nazism' (Plehwe 2009: 14). The three key books which introduced so many to neoliberal ideas – Hayek's *The Road to Serfdom*, Mises' *Bureaucracy* (1944), and Popper's *The Open Society and Its Enemies* – were all written by central European authors in exile from the Nazi regime. The disruption of the Second World War and its aftermath put a stop to neoliberal developments in France (Denord 2009: 51) as the emphasis on *planning* in political discourse left little room for neoliberal ideas. In contrast, Germany in the immediate post-war period saw the construction of what could be claimed as the first neoliberal state – the Federal Republic of Germany ('West Germany'). Here, the social market economy – which in part was designed by neoliberal economists – was presented as a 'third way' between capitalism and socialism (Bonefeld 2012; Ptak 2009: 120; Tribe 1995: 214–15) with a strong moral grounding to protect citizens from market forces (a hallmark of ordoliberalism). Ptak (2009: 122–25) claims that the social market economy should really be understood as a strategy by ordoliberal economists to implement their ideas. Hence, neoliberal intellectuals have found ways to meld their ideas with both authoritarian and anti-authoritarian political regimes. As the analysis later in this chapter will show, this adaptability of neoliberal ideas has been a key factor in the rise of neoliberal hegemony.

Foucault argued that ordoliberalism must be seen as more than simply a restating of eighteenth-century liberal ideas. The ordoliberal formulation of statehood was 'a state under supervision of the market' (Foucault 2008: 116) wherein the essence of the market was competition (see also Eucken 2017). Ordoliberals understood that there is nothing 'natural' about market competition so the formal conditions for it must be created and maintained.¹¹⁹ Under this logic, the role of the state is to move ever closer towards pure competitive markets – an idea which contains the seeds of the expansion of economising logic to previously non-economic domains. Ordoliberals were wary of what they saw as the inflationary nature of the state (Foucault 2008: 187–89). They claimed that the state's 'natural' tendency is towards continuous concentration of power, culminating in totalitarianism, so free markets – free from state interference – must be created in order to keep this power in check. The idea that free markets are important as a site

119 For more on the relationship between ordoliberal thought and the maintenance of social order via the rule of law and state security apparatuses, see Bonefeld (2012).

of resistance to totalitarianism was also a cornerstone of the work of Hayek, the most influential economist on the early development of American neoliberal theory.

Hayek and the neoliberal conception of freedom

Hayek's most explicitly political work can be found in *The Road to Serfdom* (2001 [1944]) and *The Constitution of Liberty* (2006 [1960]). In *The Road to Serfdom*, Hayek argued that fascism was the logical outcome of German socialism, and thus by extension if similar 'socialist' policies are pursued elsewhere, the inevitable outcome is fascism.¹²⁰ This argument relies on a historical analysis of German social and economic policy during the interwar years and an assumption that under similar enough conditions the same outcome is inevitable (Hayek 2001 [1944]: 24–32).¹²¹ Since such an analysis relies on an argument by analogy, it can be countered on both factual and logical grounds by the presence of empirical evidence to the contrary. We now know that the actual path taken by Western liberal democracies¹²² after 1945 was one of mixed economies: a blend of liberalism and socialism, freedom and planning. Following the economic crisis of the 1930s and the devastation of the Second World War, politicians in the UK and US turned to Keynesian economic policies, with an emphasis on social security and full employment (Stedman Jones 2012: 22–24). In the UK, the word generally used to describe the political attitude towards the reforms inspired by the 1942 Beveridge Report¹²³ and Keynes'

120 *The Road to Serfdom* contains a somewhat muddled blend of decrying others' acceptance of inevitability (Hayek 2001 [1944]: 3) while also proclaiming the 'inevitable' nature of socialism's evolution into fascism and totalitarianism (Ibid., pp. 1–5). Hayek appears to state that nothing should be accepted as inevitable, but at the same time *if the path to socialism is pursued* it will inevitably lead to totalitarianism. (Totalitarianism can be defined as a political system that 'aim[s] toward a total negation of the individual' (Stedman Jones 2012: 68).) Alves and Meadowcroft (2014) try to address this contradiction by highlighting the nuances in Hayek's views on the 'inevitability' of planning's descent into totalitarianism and reminding us that Hayek did allow some role for a minimal social safety net, but this still leaves us without a clear answer to Keynes' objection to *The Road to Serfdom* – that Hayek admits that some level of state intervention in the economy is necessary but does not provide a way to determine where the level is set (Stedman Jones 2012: 66–68; see also Godard 2013: 371–73) and therefore the boundaries of intervention remain subject to change and the supposed danger of sliding into totalitarianism is still present.

121 Not all neoliberals agreed with this analysis; see Denord (2009: 58–59).

122 Hayek only focused in any detail on Germany, France, the UK, and the US (with the Soviet Union providing a contrasting foil), so a refutation of his arguments can be similarly restricted.

123 The Beveridge report was one of the founding documents of the welfare state in Britain, leading to reforms such as the creation of the National Health Service.

macroeconomic ideas¹²⁴ is *consensus*, because the general direction of policy was supported by all major political parties from 1945 to the 1970s (Toye 2013). However, the private market economy was still central to economic activity. Nations which tended more towards the socialist end of the social democracy spectrum during the same period, such as Sweden, did not become totalitarian or even authoritarian regimes, while the explicitly neoliberal regime of Pinochet in Chile did.¹²⁵ So we can see that history does not correlate with Hayek's argument. Indeed, Alves and Meadowcroft (2014) argue that the empirical evidence shows that mixed economies have in fact proven to be the most stable form of macroeconomic organisation. The analogy in Hayek's argument is also weakened by questioning whether it was correct to assert that fascism was the logical outcome of German socialism. Although it could be argued that the Nazi party co-opted collective means of production for their own ends because they saw the value of doing so, this does not mean there is an inherent link between collectivist means and totalitarian ends. Hayek's argument from analogy would thus not pass Popper's own falsifiability criterion (i.e. that if a theory is to be regarded as scientific or rational, it may be disproved by a single counter-example – see Popper 2002 [1959]). And of course, there were other explanations for the appeal of the National Socialists in Germany at that time, rooted in non-rational ideas to do with race, fear, and nationalism, rather than the particular economic models utilised by the government (Godard 2013: 275–76).

Hayek saw liberalism and socialism as the two major strands of political thought at the time he was writing and set them in opposition.¹²⁶ Hayek argued that

124 Incidentally, Beveridge and Keynes were both members of the Liberal Party. The welfare state had begun to be constructed, albeit on a much smaller scale, by the New Liberal governments of Herbert Henry Asquith (1908–16) and David Lloyd George (1916–22) (see Stedman Jones 2012: 26–27).

125 Augusto Pinochet ruled Chile from 1973–89 after taking power in a military coup. This will be discussed further below in the section 'The emergence of neoliberal hegemony: moving from theory to policy'. By 'explicitly neoliberal' I do not mean that the regime referred to itself as neoliberal, but rather that they implemented policies that were explicitly based on the work of neoliberal economists.

126 In the later (and less polemical) work *The Constitution of Liberty*, Hayek qualified this dichotomy and proposed that conservatism, socialism, and liberalism can be more accurately imagined as three points on a triangle (Hayek 2006 [1960]: 343–45). By this time (1960), Hayek claimed that there was no need to consider socialism as an immediate threat to liberty because unlike in 1944 it was no longer seen as a viable political project, although he believed that attempts by 'welfare liberalism' to enforce distributive justice through progressive taxation was still a threat to the free market (Hayek 2006 [1960]: 222–24).

socialists and liberals both desired similar ends, but disagreed about the means of achieving them – liberals prioritise the market whereas socialists advocate collectivism. Hayek used *collectivism* as ‘an all-encompassing term that included Nazi and Soviet totalitarianism, New Deal liberalism, and British social democracy’ (Stedman Jones 2012: 4, 32). He opposed collectivism because it is the same means used by authoritarian regimes (Hayek 2001 [1944]: 33–35), claiming that it is not only economic freedom that collectivism stifles, but also freedom of thought (Ibid., pp. 157–70).¹²⁷ Hayek’s argument, following Mises (see Gane 2014: 8), assumes that there are only two ways of organising economic activity within society: central planning and market freedom (Hayek 2001 [1944]: 36–37).¹²⁸ Planning and competition are regarded as two opposite poles and there is no room in his theory for coexistence or a mixture of the two – let alone alternative modes of organisation. Since all currently existing liberal democracies *are* a mixture of the two, Hayek’s theory does not map neatly onto the political experience of the Global North in the postwar period (Alves and Meadowcroft 2014). Interestingly, Hayek advocates the purposeful construction of frameworks to support competition with a market and accepts that there are some areas in which competition cannot be usefully applied, such as basic primary education (Hayek 2001 [1944]: 37, 40). However, Hayek sees competitive systems as the only means of decentralising power (Ibid., p. 149). He assumes that if power is organised, it must be organised hierarchically. Proponents of anarchist and syndicalist modes of organisation would disagree, and analyses of decentralised, non-hierarchical modes of collective organisation can counter Hayek’s view.¹²⁹ Chapter 8 of this thesis will return to this point and analyse the non-market, non-state form of organisation known as ‘commons’.

In the later work *The Constitution of Liberty* (2006 [1960]), Hayek writes at length on the problem of liberty and how best to sustain it. Hayek conceives of

127 The fear of collectivism present in Hayek’s writing was heavily influenced by the European experience of the 1930s and the Second World War.

128 Friedman (2002 [1962]: 13) makes this same assumption: ‘Fundamentally, there are only two ways of co-ordinating the economic activities of millions. One is central direction involving the use of coercion [...] The other is voluntary co-operation of individuals – the technique of the market place.’ Voluntary co-operation occurring outside of market transactions appears to be inconceivable in the versions of neoliberalism presented by both Hayek and Friedman’s populist works.

129 Karl Polanyi had refuted Mises’ assumption regarding the necessity of centralised planning to socialism as early as 1925, refusing to accept the ‘common assumption that socialism implies a centrally planned economy, instead focusing on a decentralised society with multiple units of decision-making’ (Hull 2006: 147).

freedom/liberty¹³⁰ in the negative sense – to use Isaiah Berlin’s terminology¹³¹ – of *freedom from* coercion, i.e. ‘independence of the arbitrary will of another’ (Hayek 2006 [1960]: 12). An apparent contradiction in Hayek’s logic demonstrates the profoundly political nature of choosing this particular definition of freedom. This contradiction is that in Hayek’s view, the number of choices available to an individual has no bearing on their freedom. If an individual has a very constrained set of possibilities to action – even if only *one* possibility – Hayek still considers them to be free if they are not being made to act against their will (Hayek 2006 [1960]: 12–13). There is no place in this logic for structural constraints (e.g. class, wealth, race, gender, etc.) to be considered as acting against freedom, and therefore no place for action to be taken by society to address them at the level of government policy. In retrospect it is clear that the logic of this argument for freedom, which Hayek claims to be the ‘original’ meaning of liberty, was created in a specific cultural context. It is about individual power relations only – a profoundly conservative view that means accepting the world as it is and seeking freedom from direct coercion of other individuals within existing constraints. It says nothing about changing the boundaries within which freedom exists – the very point of collective action. The tension between this conservative viewpoint and the possibility of change embodied by liberty is something which Hayek elides, simply claiming that ‘the result of the experimentation of many generations may embody more experience than any one man possesses’ (Hayek 2006 [1960]: 55). Isaiah Berlin, one of Hayek’s contemporaries, represents an alternative liberal tradition when he writes that ‘the extent of my social or political freedom consists in the absence of obstacles not merely to my actual, but to my potential, choices [...] absence of such freedom is due to the closing of such doors or failure to open them, as a result, intended or unintended, of alterable human practices, or the operation of human agencies’ (Berlin 2002 [1969]: 32).

Hayek contrasts his definition of freedom with three others: ‘inner freedom’, ‘freedom to do what I want’, and ‘political freedom’. It is the explicit differentiation of his version of freedom from *political freedom* (Hayek 2006 [1960]: 13) that is

130 As noted above, Hayek uses the words *freedom* and *liberty* interchangeably (see Hayek 2006 [1960]: 11, n.1).

131 On negative liberty, Berlin said: ‘What is the area within which the subject – a person or group of persons – is or should be left to do or be what he is able to do or be, without interference by other persons?’ (Berlin 2002 [1958]: 169).

most relevant to this thesis. Hayek sees individual freedom and collective freedom – ‘national’ freedom, or ‘absence of coercion of a people as whole’ (Ibid., p. 14) – as related but distinct concepts. Excluding political freedom from his analysis requires ignoring a means by which people can collectively alter the conditions which structure their available options. In *The Road to Serfdom*, Hayek had claimed that political freedom cannot exist without economic freedom (Hayek 2001 [1944]: 13; Stedman Jones 2012: 68–71). When this argument is combined with the focus on a purely individualist definition of freedom,¹³² rather than collective freedom, Hayek essentially dismisses collectivist approaches to economic questions because collective political organisation is irrelevant to his core concern – individual liberty. If liberty depends on individual economic freedom then government policy should be directed towards maximising that freedom. Hayek reinforces the individual nature of freedom by using an individualist perspective in his definition of coercion:

By coercion we mean such control of the environment or circumstances of a person by another that, in order to avoid greater evil, he [sic] is forced to act not according to a coherent plan of his own but to serve the ends of another [...] Free action, in which a person pursues his own aims by the means indicated by his own knowledge, must be based on data which cannot be shaped at will by another.

(Hayek 2006 [1960]: 19)

To counter this view, it could be argued that almost everything about the conditions within which an individual acts are determined by others – all individual actions are constrained by socio-historical circumstances. Hayek’s definition of coercion ‘presupposes a human agent’ rather than being ‘compelled by circumstances’ (Hayek 2006 [1960]: 117), as though human agents do not together construct the circumstances.¹³³ This definition of coercion could in fact be altered to include structural oppression if the term *person* is expanded to include *persons*, and *environment or circumstances* are understood as including indirect power relations.

132 It should be noted that an individualistic definition of freedom is not unique to Hayek; it is a common element in the tradition of enlightenment rationality.

133 The individualist conception of liberty ignores race, gender etc., and the systemic oppression of *groups* of people. It refuses to understand power relations as anything other than relations between individuals.

Intriguingly, Hayek does once raise the issue of oppression, stating that it ‘is perhaps as much a true opposite of liberty as coercion, [and] should refer only to a state of continuous acts of coercion’ (Hayek 2006 [1960]: 119). Hayek appears to be strongly against what have subsequently become the oppressive contemporary neoliberal methods of control (such as surveillance). Alves and Meadowcroft have argued that ‘Hayek did not foresee that significant government intervention in the economy could be compatible with the preservation of political freedom because he employed a narrow conceptualisation of freedom which led him to misunderstand the nature of and the relationship between economic and political freedom’ (Alves and Meadowcroft 2014: 857). Therefore Hayek’s narrow and incomplete idea of the nature of power in society led him to distorted analyses regarding the role of government. To understand how power actually works in capitalist societies, it is important to recognise that liberty alone cannot lead to an end of power imbalances – liberty and equality are often in opposition. As Collier (2007: 112–14) puts it, ‘we have to make up our minds which freedoms and which equalities we favour, and which of each we reject [...] liberty is not a coherent ideal, because it exists only as liberties (in the plural), and one liberty contradicts another’. Therefore favouring economic freedom for capital over other types of freedom, as Hayek did, is a choice to accept inequality.

Hayek believed that an essential condition of freedom is the ‘need for protection against unpredictable interference’ (Hayek 2006 [1960]: 141), and thus it is vital to maintain the rule of law. Hayek elucidated a difference between *law* and *commands* – abstract laws applying to all are different from commands issued by an individual (Ibid., pp. 130–31). A central argument of *The Constitution of Liberty* is that laws cannot be considered to be restrictions on freedom – as long as they do not name individuals – because of this difference; they are not direct commands (Ibid., pp. 134–35). A cursory understanding of the legislative process in Western democracies brings this claim into question; laws are created by individuals for particular ends which always have a political element. To state that legislators undertake their role with no intention to affect particular people once again relies on ignoring any collective element to society. For example, while it is true that legislation which reduces provision for disabled people and thus reduces their ability to access essential services is *not* a restriction on any *named individual’s* freedom, because no individual is targeted, it is still very clear that disabled people as a group

(and many individuals within this group) will be negatively affected by the legislation. Thus whether a law is considered to be an abstract entity applying to all, or a command issued in order to affect a particular known group of people, relies on underlying assumptions about the collective nature of society.¹³⁴ In this light, Margaret Thatcher's assertion that 'there is no such thing as society' can be understood as part of an individualist approach to the nature of law and government.¹³⁵

When considering the role of the state there is a direct link between freedom, as defined by Hayek, and free markets. As discussed above, for Hayek a state's role in a free society is to protect the conditions by which individuals can act freely without coercion (Hayek 2006 [1960]: 20). Similarly, the role of the state in a free market society is to protect the conditions by which individual actors can act freely within the market (see Busch 2017: 12–13). This view understands freedom only in terms of individual market transactions. In fact, Mises took the correlation between freedom and free markets even further and argued for the market *as* democracy (Stedman Jones 2012: 56–57).

Part of Hayek's case for freedom is that we are ignorant of most things, so for society to progress we must leave as much room as possible for experimentation. In a similar way to Hayek's refusal in *The Road to Serfdom* to acknowledge alternatives beyond two opposing economic systems – free markets and centralised planning – his concept of freedom does not take into account alternatives beyond either absolute freedom or one person commanding another. When it comes to collaboration between equals to achieve a common end, or people working together

134 This line of enquiry is relevant to Foucault's interest in neoliberalism. According to Behrent, Foucault believed that 'when power targets populations, it can be significantly more accommodating of individual freedom than when, as with discipline, it places the individual squarely within its cross hairs' (Behrent 2016: 44). If Behrent's analysis is correct then Foucault agreed with the fundamental point of liberal theory, that leaving decisions to the market rather than the state leads to an increase in individual freedom. In reality we can see that the adoption by neoliberal regimes of technologies of surveillance, and the prioritising of 'compliance' with the neoliberal order, means that under neoliberalism individuals are subject to strict intervention in their behaviour. Behrent (2016a: 178) points out that Foucault focused on texts rather than neoliberal policy in practice. Had Foucault lived through neoliberalism's rise to global hegemony, he may have had a different view on whether neoliberalism produces an increase in individual freedom.

135 A famous anecdote about Thatcher (see Ranelagh 1991) is that at a meeting in 1975, she slammed a book down on the table and said 'this is what we believe'. The book was *The Constitution of Liberty*. Thatcher's relationship with neoliberalism will be discussed further below.

to share knowledge and ideas, Hayek has nothing to say because he uses such a narrow definition of freedom (i.e. freedom from coercion) that these notions do not appear in his arguments. However, as Chapter 8 demonstrates at length, alternative forms of collective organisation outside of state coercion are certainly possible. Therefore the limitations of the neoliberal conception of freedom in turn lead to a limited understanding of which forms of political organisation are possible.

Hayek writes as if the principles of liberalism are universal principles underpinning freedom in all societies, as opposed to a culturally and historically contingent ideology:¹³⁶ ‘We must show that liberty is not merely one particular value but that it is the source and condition of most moral values’ (Hayek 2006 [1960]: 6). This claim has huge implications when we consider it alongside the narrow definition of freedom which he chooses: if liberty is society’s primary source of morality, and liberty only refers to individual economic activity in markets, then *market transactions* are the site of morality. It is clear that when Hayek writes ‘we’ in *The Constitution of Liberty* he means the ‘West’ (Western Europe and North America) and from this narrow perspective he attempts to justify global inequality (see Hayek 2006 [1960]: 42–43).¹³⁷ Hayek claims that the theory of liberty was invented in England and France in the eighteenth century and *laissez-faire* is a product of the French rationalist tradition and not the empiricist tradition of the classical liberals David Hume and Adam Smith whom he prefers (Ibid., p. 49, 54).

Understanding Hayek’s interpretation of the rule of law, which he believes is only compatible with a free market, is key to understanding his claim that liberalism is the only way to oppose totalitarianism – he argues that if there are no limits to government action by a ‘higher’ natural law, then there is nothing to stop despotism (Hayek 2006 [1960]: 205–09). This flawed reasoning leaves out the fact that firstly, ‘natural law’ is created by people – even if not necessarily a single individual – and is therefore subject to all the biases that entails; and secondly, a despot who is able to take power can simply destroy the legal basis of ‘natural law’ anyway. Hayek

136 According to Coleman (2012: 191), ‘since the time of the Enlightenment, freedom has acted as a master trope by which to prop up a vast array of political theories and imaginaries, ranging from anarchism to socialism as well as liberalism (Lakoff 2006; Hardt and Negri 2000)’.

137 Hayek believed that the best way to order human activity is not by planning but through uncoordinated individual actions by people acting in order to maximising their own self-interest – the free actions of the wealthy will subsequently benefit the masses (i.e. trickle down economics, the ‘rising tide lifts all boats’) so inequality is not only acceptable but necessary. Thatcher agreed with this position (McSmith 2011: 21).

focused too much on Germany as if the economic and legal conditions were the *only things* that led to Hitler's taking power and subsequent actions. Despotism is certainly present in non-socialist societies, and authoritarianism frequently occurs within capitalist/free market societies. So claiming that freedom for capital is the one vital key to prevent concentration of power is a weak argument.

To summarise, the overall argument of the two books – *The Road to Serfdom* and *The Constitution of Liberty* – is that only a free market can provide liberty for all. For Hayek, economic policy is a means of achieving liberty. Throughout the analysis given so far in this chapter, it has emerged that a key aspect of all schools of neoliberal thought is the relationship between political and economic freedom. Indeed, neoliberals believed that political freedom *arises out of*, and depends upon, economic freedom. This can be seen even as far back as Lippmann's proto-neoliberal *The Good Society* (1937), which 'discussed totalitarianism primarily with regard to the absence of private property, rather than the more commonplace reference to lack of democracy or countervailing political power' (Plehwe 2009: 13). In this view, the repressive aspect of totalitarian regimes was the absence of *economic* rather than *political* freedom. Ordoliberals, on the other hand, took a slightly different approach, as Bonefeld (2012: 8) describes:

Economic freedom is not unlimited. It is based on order, and exists only by means of order, and freedom is effective only as ordered freedom. Indeed, laissez-faire is 'a highly ambiguous and misleading description of the principles on which a liberal policy is based' (Hayek 1944: 84). For the ordoliberals, the sanctity of individual freedom depends on the state as the coercive force of that freedom. The free economy and political authority are thus two sides of the same coin. There is an innate connection between the economic sphere and the political sphere, a connection defined by Eucken (2004) as interdependence. [...] The organisational centre is the state; it is the power of interdependence and is thus fundamental as the premise of market freedom. That is, the economic has no independent existence. Economic constitution is a political matter (Eucken 2004).

Thus the ordoliberals saw a different relationship between economic and political freedom to Hayek; they 'conceive of economic liberty as a construct of

governmental practice. Economic freedom derives from a political decision for the free economy' (Bonefeld 2012: 6). Whereas Hayek, on the other hand, always placed economic liberty as a prerequisite for political decisions. And it was Hayek that eventually won this particular battle of ideas, as 'through the twentieth century the transition from political to economic freedom became the signature of a neoliberal agenda' (Tribe 2009: 71). While Hayek invoked the imagery of classical liberalism, this rhetorical device masked the fact that he was also making the transition to an economics-first perspective in which economic freedom subsumes political freedom.

For neoliberal thinkers of all persuasions, economic liberty is for the few, not the many. If the majority of people are working class then economic liberty for most would lead to increased power for labour (Tribe 2009: 75). But 'economic liberty' that prioritises freedom of markets (capital) rather than workers (labour) is a way of concentrating power in the hands of the economic elite. The social advances in areas such as health and education from the mid-nineteenth to mid-twentieth centuries, due in large part to the work of trade unions and introduction of progressive legislation following greater enfranchisement, are notably absent from depictions of a 'decline' during this period claimed by neoliberal economists. The 'small state' of Britain in the early nineteenth century was a product of war and colonialism (Tribe 2009: 73). To advocate for a return to the economics of this period, as neoliberals did,¹³⁸ while ignoring the social context, is to distort history through a narrow economic lens.

Attempting to derive some kind of 'essential' philosophical core of neoliberal thought is perhaps futile, due to its seemingly endless capacity for adaptation (see below). However, understanding Hayek's conception of liberty can at least provide a starting point for analysing the kind of neoliberal ideas that eventually came to hold such a strong influence on policy throughout the world in the final decades of the twentieth century. And in looking at the notion of *openness*, particularly as promulgated by Hayek's close associate Popper, we can begin to see how the conception of openness that is now advocated by various open movements may bear some relation to the way that openness is perceived in neoliberal thought.

138 A period in which, incidentally, the bulk of public expenditure was on debt repayment and the military. This is not to say that neoliberal theorists particularly desired a high level of expenditure in these two areas, but rather that they desired a drastic *decrease* in most other forms of expenditure.

Popper and the open society

Karl Popper's work of political philosophy *The Open Society and Its Enemies* (2003 [1945], 2003a [1945a]) was written in political exile during 1938–43 and first published in two volumes in 1945. It 'sketches some of the difficulties faced by our¹³⁹ civilization' in 'the transition from the tribal or "closed society", with its submission to magical forces, to the "open society"¹⁴⁰ which sets free the critical powers of man' (Popper 2003 [1945]: xvii). The book is related to, and influenced, neoliberal ideas. By making its subject the history of political thought, rather than dealing directly with contemporary economic conditions, *The Open Society* provided intellectual depth to complement the more polemical nature of *The Road to Serfdom*. *The Open Society* is about the dangers of totalitarianism and the importance of resisting it. It is also about the development of *historicism*, i.e. the supposed inevitability of historical events proposed by social theories such as Marxism which claim to have found 'laws of history' (Popper 2003 [1945]: 3–5).¹⁴¹

Volume 1 of *The Open Society* largely consists of repudiating the historicism in Plato's theory of forms and thus the political theory derived from it. Popper uses the term *methodological essentialism* to describe the notion that 'it is the task of pure knowledge or "science" to discover and to describe the true nature of things, i.e. their hidden reality or essence' (Popper 2003 [1945]: 29). Popper focuses on Plato because that is where he identifies the earliest instance of a political philosophy which uses methodological essentialism as a justification for actively creating a particular kind of state. Plato proposed the existence of an 'ideal form' of society – a form which the utopian state described in *The Republic* is an attempt to return to – that has been inexorably decaying.

Popper argues that the distinction between natural law (unchanging scientific laws of the natural world) and normative law (ethical and legal laws created and changeable by humans) is key to understanding Plato's theory.¹⁴² What Popper terms

139 'Our' civilisation, to Popper, refers to 'Western' civilisation, i.e. Western Europe, the United States, and other anglophone countries.

140 The term 'open society' appears to have been coined by Henri Bergson in the 1932 work *The Two Sources of Morality and Religion* (see Bergson 2002: 41).

141 See Popper's *The Poverty of Historicism* (2002 [1957]) for further detailed argument against historicism.

142 Plato does allow that some social laws are natural rather than normative (Popper 2003 [1945]:

naive monism – the stage where ‘both natural and normative regularities are experienced as expressions of, and as dependent upon, the decisions of man-like gods or demons’ (Popper 2003 [1945]: 61) – is characteristic of a closed society, whereas *critical dualism* – ‘a conscious differentiation between the man-enforced normative laws, based on decisions or conventions, and the natural regularities which are beyond his power’ (Ibid., p. 62) – is characteristic of an open society.

Plato uses history as method; in a naturalist theory, in order to understand the nature of a thing (when ‘nature’ is equivalent to Form) we must understand where it came from – its origins (Popper 2003 [1945]: 77). So understanding society becomes a process of seeking the original Form rather than trying to understand society as it is now. Plato’s utopian vision of the perfect state was reliant on his theory of the *biological* state, i.e. sustained by rigid class distinctions based on genetics and racial privilege – a clear precedent of the Nazi ideology that Popper was writing against (Stedman Jones 2012: 42). According to Popper, Plato’s political philosophy is derived from these essentialist and naturalist principles – all change is bad and all stasis is good, a return to ‘nature’/original Form – and as such is totalitarian (Popper 2003 [1945]: 91–94). Plato’s supposed totalitarianism is a result of his historicism. In Plato’s *Republic*, individuals serve the state rather than the state serving individuals. Totalitarianism ‘is the morality of the closed society [...] it is collective selfishness’ (Popper 2003 [1945]: 114–15).

Popper’s defence of democracy is that it works by creating institutions to limit political power and thus avoid tyranny; democracy is a non-violent way of changing the institutions that wield power, and failures of democratic institutions are not failures of democracy but failures of the people who did not adequately manage or change them – the responsibility lies with people, not impersonal forces of history (Popper 2003 [1945]: 132–35). For Popper, a key difference between approaches to political reform is that between *utopian engineering* and *piecemeal engineering* (Gray 1976: 342–44; Popper 2003 [1945]: 166–69). Utopian engineering requires that ‘we must determine our ultimate political aim, or the Ideal State, before taking any practical action’ (Popper 2003 [1945]: 167). Piecemeal engineering, on the other hand, recognises that it may not be possible to construct an ideal state – or at least, not in a short space of time – so strives to remove sources of harm from the world rather than fight for some ultimate good (Ibid.). Popper’s objection to utopianism is

68).

that it requires ‘a strong centralized rule of a few, and which therefore is likely to lead to a dictatorship’ (Ibid., p. 169).¹⁴³ Popper argues that since there is no rational method of determining what the ideal should be, any divergence of views can only be resolved by resorting to violence (Ibid., pp. 170–71). Democracy, on the other hand, is a piecemeal process.

Popper defines closed societies as equivalent to ‘magical or tribal or collectivist’ societies, and open societies as those ‘in which individuals are confronted with personal decisions’ rather than relying on magical rituals and taboos (Popper 2003 [1945]: 186). A closed society maintains a rigid social hierarchy – ‘the tribe is everything and the individual nothing’ (Ibid., p. 203). In the open society, on the other hand, authority begins to disperse, and individualism and personal responsibility come to the fore (Ibid., p. 189). Humanitarianism and reason are prominent virtues. By equating collectivist with ‘magical or tribal’ societies Popper is making a rhetorical move to claim that the rigid nature of small tribal societies also applies to all collectivist societies. An open society may, as in contemporary ‘Western’ democracies, become an ‘abstract society’ functioning largely through abstract social relations such as ‘division of labour and exchange of commodities’, rather than concrete personal contact (Popper 2003 [1945]: 186–88). A closed society cannot achieve this state. As such, Popper argues that commerce is key to pushing the transition from a closed to an open society (Ibid., pp. 188–90).

As with Hayek, Popper sees a dichotomy between two political systems, in this case closed (totalitarian/collectivist) and open. These opposing systems place different emphases on the roles of competition and co-operation between citizens, where ‘one of the most important characteristics of the open society [is] competition for status among its members’ (Popper 2003 [1945]: 186). However, Popper does use the word ‘co-operation’ as an example of a kind of relationship within an abstract (and thus open) society. This means that co-operation and competition can at least co-exist to some extent, and competition does not need to define *all* relations within an open society. Popper’s definition of collectivism is ‘a doctrine which emphasizes the significance of some collective or group, for instance, ‘the state’ (or a certain state; or a nation; or a class) as against that of the individual’ (Popper 2003 [1945]: Ch. 1 note 1, 216). Therefore Popper considers co-operation between

¹⁴³ In a footnote to this statement Popper clarifies that his use of the term *utopian engineering* corresponds to Hayek’s depiction of centralised or collectivist planning (Popper 2003 [1945]: Ch. 9 note 4, 318).

individuals to be a valid part of a well-functioning open society, but not ‘collectivist’ co-operation between members of a group working for the good of the whole group (perhaps to the exclusion of other groups).

Popper’s reason for exploring the historicism of Plato so thoroughly in the first volume of *The Open Society* is that it directly impacted on Hegel, whose ideas in turn profoundly influenced both Marx and modern totalitarianism (Popper 2003a [1945a]: 30–34). The second volume focuses on Hegel, for whom ‘the state is everything, and the individual nothing’ (Ibid., pp. 34–35), and Marx. In Hegel’s essentialism the overarching trend of history worked in the opposite direction to Plato’s, in that the true form, or essence, of the state was the *end* state that is being worked towards through history, rather than being an *original* state that subsequently degenerates (Ibid., pp. 39–41). This idea is used to justify historical events – everything is part of inevitable progress towards perfection (which Hegel just so happens to believe to be the Prussian monarchy that employed him).¹⁴⁴ Marx’s historicism was derived from Hegel and he applied the idea to economic phases of history, resulting in a kind of economic historicism. For Marx, Hegel’s theory of a dialectical struggle between states was replaced with a struggle between classes, which are caught in a rigid system of social relations that is determined by the economic structure of society (the means of production). The class struggle is a process of working towards an inevitable socialism.

Popper was far more sympathetic to socialist ideas than Hayek or Mises, but although he agreed with the motives he was scathing about the means, particularly with regards to utopian planning (Stedman Jones 2012: 34). Popper believed that Marx ‘misled scores of intelligent people into believing that historical prophecy is the scientific way of approaching social problems. Marx is responsible for the devastating influence of the historicist method of thought within the ranks of those who wish to advance the cause of the open society’ (Popper 2003a [1945a]: 91). Furthermore, according to Stedman Jones (2012: 44–45), Popper saw historicism as a disincentive to action:

For Popper, belief in historical inevitability was not simply wrong, it also raised a practical problem: it eradicated the incentive to behave responsibly.

144 According to Popper, Hegel developed a totalitarian theory of nationalism (Popper 2003a [1945a]: 67–70).

It was easier for people to do nothing. Such a view was anathema to a defender of individual choice and freedom.

Another way in which Popper's views significantly differed from the neoliberal economists who claimed to be influenced by his work is that Popper argues against unlimited economic freedom. He agrees with Marx that an unrestrained capitalist system leads to exploitation of the economically weak by the economically strong, which thus takes away their freedom (Popper 2003a [1945a]: 135). But unlike Marx, Popper claims that a complete social revolution is not necessary to prevent such abuse of economic power; rather, democratic political intervention will do the job: 'we must construct social institutions, enforced by the power of the state, for the protection of the economically weak from the economically strong. The state must see to it that nobody need enter into an inequitable arrangement out of fear of starvation, or economic ruin' (Popper 2003a [1945a]: 135). In a strong argument for piecemeal engineering, Popper claimed that 'Only by planning, step by step, for institutions to safeguard freedom, especially freedom from exploitation, can we hope to achieve a better world' (Ibid., p. 158). Popper believed that by the time he was writing (1940s), such institutions to guarantee freedom had already been created, so the kind of capitalism Marx was writing against no longer existed. Popper thought that the Marxist focus on class struggle and (possibly violent) overthrow of the rulers, instead of concentrating on maintaining and strengthening democratic institutions, was a strategic mistake. He realised that 'liberalism and state-interference are not opposed to each other' (Popper 2003 [1945]: 117), contradicting the neoliberal ideal of 'non-intervention' in economics: 'Which freedom should the state protect? The freedom of the labour market, or the freedom of the poor to unite? Whichever decision is taken, it leads to state intervention, to the use of organized political power, of the state as well as of unions, in the field of economic conditions' (Popper 2003a [1945a]: 195–96).

So it is clear that, as Vernon (1976) has argued, Popper's 'open society' differs in significant ways from the version of liberalism pursued by Hayek. The openness that Popper prioritises requires plurality of thought (Vernon 1976: 267), which is a central tenet of liberalism from John Stuart Mill through to Isaiah Berlin, but not for Hayek. Vernon argues that equating the freedom of exchange of *ideas* as directly analogous to freedom of exchange of *commodities in a market* – as Nik-Khah (2011:

139) points out, an equation that is also emphasised by Chicago economist Stigler (Stigler 1963: 87–88)¹⁴⁵ – is a logical mistake (Vernon 1976: 268).¹⁴⁶ Furthermore, ‘If the market plays no part in Popper’s scheme, it is not merely because his focus of interest is different from Hayek’s, but because the logic of the market differs fundamentally from the model of action that Popper’s scientific paradigm assumes’ (Vernon 1976: 268). Unlike Popper, Hayek’s analysis of freedom – understood in primarily economic terms – requires free markets as the only possible way to sustain it. Popper, however, may have believed that liberal democracy is the best form of government but he did not prioritise free markets above all else.¹⁴⁷ Indeed, Popper’s political position has often been seen as closer to social democracy than free market liberalism (Eidlin 2005; Shearmur 1996).¹⁴⁸

In light of the striking differences between the concept of liberty as understood by Hayek and by Popper, perhaps the historical context in which they were both working is the best explanation for why they saw each other as working towards the same goal. Eidlin (2005: 33) argues that Popper’s primary concern in writing *The Open Society* was to provide a rational refutation of the claims of totalising political narratives such as that offered by Marxism. According to Hull, Popper and Hayek were inclined to support each others’ work because they were both determined to challenge the Positivism that they associated with Marxism and totalitarianism (Hull 2006: 149; see also Tkacz 2012: 389). At that particular moment in history, they saw the fight against totalitarianism as a singular priority that eclipsed any disagreements, however significant those differences may seem today.

Popper’s focus on having liberal-democratic institutions and processes in order to maintain an area of life within which citizens have liberty is consistent with

145 See the following section for more on the Chicago School.

146 ‘If goods become objects of intrinsic value rather than exchange value, they are excluded from the economic market, which depends on the application of a common measure to all commodities; while if opinions become commodities, and lose their intrinsic value or truth-content, they cease to have any relevance for debate. Similarly, there is a distinction to be made between a result and a conclusion; in a market economy, price, ideally, is a result of multiple choices, and not a conclusion reached by any individual or group’ (Vernon 1976: 268).

147 To name but a few of the specific differences in their economic policy, Popper explicitly argued against the idea that the role of the state should be reduced to enforcement of contracts and the rule of law (Popper 2003a [1945a]: 135), and he also disagreed with the rejection of full employment as a fundamental aim of economic policy (Chmielewski and Popper 1999: 36; Popper 2003a [1945a]: 135; Stedman Jones 2012: 40).

148 Although, Popper did attend the inaugural meeting of the Mont Pelerin Society (Hartwell 1995: 46).

Berlin's negative liberty. In the introduction to his *Five Essays on Liberty* (2002 [1969]: 38–39), Berlin set out a defence of his distinction between negative liberty (freedom from coercion – ‘over what area am I master?’) and positive liberty (freedom to act – ‘by whom am I to be governed?’):

Legal liberties are compatible with extremes of exploitation, brutality and injustice. The case for intervention, by the State or other effective agencies, to secure conditions for both positive, and at least a minimum degree of negative, liberty for individuals, is overwhelmingly strong. [...] The case for social legislation or planning, for the Welfare State and socialism, can be constructed with as much validity from consideration of the claims of negative liberty as from those of its positive brother, and if, historically, it was not made so frequently, that was because the kind of evil against which the concept of negative liberty was directed as a weapon was not laissez-faire, but despotism. The rise and fall of the two concepts can largely be traced to the specific dangers which, at a given moment, threatened a group or society most: on the one hand excessive control and interference, or, on the other, an uncontrolled ‘market’ economy. Each concept seems liable to perversion into the very vice which it was created to resist.

Berlin argues that negative liberty cannot be used as an absolute principle to justify the construction of a particular political project, whether socialism or a market economy, without consideration of other factors. Liberal political philosophy generally accepts that this is the case and there are additional values – equity, fairness, justice – that are important and should not be ignored in favour of a total adherence to a singular conception of individual liberty. The neoliberal version of liberty, resting on absolute economic freedom above all else and rejecting the pluralism Berlin cherished, can thus be seen as an element of a political project to reshape society in market terms. Seen in this light, Popper's *The Open Society* is equally, if not more, at home in alternative liberal traditions to that occupied by Hayek and other neoliberals. Perhaps this is the reason why, despite the strong influence on Hayek, later neoliberal economists did not pay much attention to Popper¹⁴⁹ – or, for that matter, other political philosophers in the liberal tradition.

149 According to Stedman Jones, Popper's scientific rationalism may have influenced Friedman's

Hayek helped to obscure and erase the diversity of liberal thought.

Hayek, Popper, and other Austrian and ordoliberal economists laid the foundations for neoliberal thought and rationality. Moving from these theoretical and ideological foundations to create a detailed body of policy was the result of sustained effort in the 1950–70s, much of which occurred in think tanks. In the postwar period ‘the neoliberal center of gravity shifted from Europe to the United States, especially the University of Chicago’ (Stedman Jones 2012: 4). The next two sections will examine the Chicago School and how their version of neoliberalism was to become a dominant hegemonic political force.

The Chicago School and the construction of neoliberal reason

The ‘Chicago School’ is a label applied to economists who worked or trained at the University of Chicago, and falls into two distinct periods. The first Chicago School, led by Frank Knight and Henry Simons during the 1920s and 1930s, propounded similar ideas to those of Hayek and his colleagues at the London School of Economics (Stedman Jones 2012: 87). They were heavily influenced by the ‘marginalist’ ideas of Alfred Marshall, Leon Walras, and William Stanley Jevons – the idea that ‘consumers would maximize their utility by matching their consumption to the prices of the various goods they wanted according to a rational order of preference’ (Ibid., p. 90). The second Chicago School – the focus of this section – was founded in 1946 with a political aim of providing a detailed corpus of research supporting free market principles (Van Horn and Mirowski 2009: 140–58). It was initially formed (and bankrolled) at the behest of the Volker Fund and its president Harold Luhnnow. Notable figures associated with the school include Milton Friedman, George Stigler, Aaron Director, Gary Becker, and James Buchanan.

According to archival research by Van Horn and Mirowski, based on correspondence between the people involved, Luhnnow’s influence permeated the theoretical orientation of early participants in the Chicago School who had to adapt their liberalism to be more sympathetic to a corporatist agenda and, in contrast to earlier European neoliberals, accept centralised power and corporate monopoly (Van

conception of Rational Economics (Stedman Jones 2012: 37–38), but if so this influence did not extend to Popper’s work on liberty.

Horn and Mirowski 2009: 157–58; Stedman Jones 2012: 7, 88).¹⁵⁰ The Chicago School was intimately connected with the Mont Pelerin Society, with the same figures – notably Hayek¹⁵¹ – instrumental in the founding of both (Van Horn and Mirowski 2009: 158–59). Defining features of the Chicago School include the drive to ‘reengineer the state in order to guarantee the success of the market’, equating freedom with self-interest, and seeing politics as a market process (Ibid., pp. 161–63). Under this paradigm the tendency towards social regulation, already well-established by ordoliberal economists, was adapted in terms of *economizing* social regulation and pushing free market ideas into new areas, such as law and education (Stedman Jones 2012: 92–93). Chicago School economists’ thought was characterised by ‘more strident advocacy of free markets, deregulation, and the power for incentives of rational expectations’ (Ibid., p. 8). Social and economic inequality was seen as necessary for progress and Chicago economists were less concerned than their forebears about social safety nets (Ibid., pp. 8–9). Their work privileged a specific form of classical liberalism and opposed welfare liberalism. Friedman’s critique of Keynesian economics, especially demand management,¹⁵² became highly influential and his theories about inflation known as monetarism became a defining aspect of neoliberal economic policy. Monetarism is the idea that control of the money supply should be the central concern of macroeconomic policy, in order to produce stable markets and low inflation.

Friedman’s *Capitalism and Freedom* (2002 [1962]) was a populist book that was the outcome of the project began over a decade earlier by Luhnnow at the

150 For a detailed treatment of the conversion of Chicago neoliberals to accept monopoly, see Van Horn (2009). Gerber (1994: 28) suggests that the German experience of cartel activity under the Weimar Republic is responsible for the ordoliberals’ tough anti-monopoly stance, so the differing situation in post-war United States may contribute to the lack of urgency among US-based neoliberal economists on this topic.

151 Hayek moved to Chicago in 1950 as a Professor in the Committee of Social Thought rather than in the Economics department (Stedman Jones 2012: 91).

152 The economic theories of Keynes had dominated economic policy in liberal democracies from 1945 until the 1970s. Keynesian economics is defined by concentrating policy towards full employment, and a strong welfare state. ‘Demand management’ is the idea that in a depressed economy, governments should increase expenditure and investment – using borrowed funds if necessary – to increase consumer demand in order to stimulate a recovery (Stedman Jones 2012: 184). Keynes had also been instrumental in setting up the Bretton Woods system of international finance based on fixed exchanged rates in the wake of the Second World War, leading to the construction of the World Bank and International Monetary Fund. (One of Friedman’s distinctive policies was to end fixed exchange rates, which the US did in 1971.) Keynes died in 1946 so ‘Keynesian’ policies generally refer to later policies inspired by his work. For more on Keynes see Skidelsky (2013).

University of Chicago to produce an *American Road to Serfdom* (Van Horn and Mirowski 2009: 141, 166). *Capitalism and Freedom* is about the connection between economic and political freedom, with Friedman claiming that economic freedom is ‘a necessary¹⁵³ condition for political freedom’ (2002 [1962]: 4). (Despite strong proclamations such as ‘the greatest threat to freedom is the concentration of power’ (Friedman 2002 [1962]: 2), Friedman doesn’t actually define freedom.) By refusing to see the economic and political as distinct spheres, Friedman moved the policy discourse closer towards bringing economic logic to bear on previously non-economic domains (see the section ‘Neoliberalism as closure’ below). For example, with regards to education, Friedman advocated for a voucher system which he claimed would stimulate freedom of choice and drive standards higher (Friedman 2002 [1962]: 89–90). Friedman glossed over liberal concerns regarding the concentration of wealth, leading Smith (1998) to argue that Friedman should be more accurately considered a libertarian than a liberal – ‘private property is itself a system of power which not only enlarges but also limits the range of choice. Liberals clearly understood this fact. It is clear that Friedman does not’ (Smith 1998: 92). This has strong implications for the policies that were later developed under Friedman’s influence.

The difference between the earlier Hayekian view of liberty and that of Friedman has been explored by Will Davies in *The Limits of Neoliberalism* (2014). Davies discusses neoliberal *authority*, which is dependent on economics for legitimacy. With an emphasis on competitive markets and rational self-interest, Davies sees ‘an attempt to replace political judgement with economic evaluation’ (Davies 2014: 3) as the core political project of neoliberalism. This replacement obscures the fact that the authority of empirical claims cannot be exercised without the existence of shared assumptions about moral principles. Davies posits that the empirical claims of neoclassical economics rely on normative and tacit rules to underpin its authority; if these norms are no longer seen to be coherent then the authority and legitimacy of economic claims – and thus the entire neoliberal project – is challenged. Here we can see a link between Davies’ argument and Foucault’s

153 Necessary, though not sufficient. Friedman admits that it is ‘possible to have economic arrangements that are fundamentally capitalist and political arrangements that are not free’ (Friedman 2002 [1962]: 10). The extent to which Friedman’s argument – that economic freedom is necessary condition for political freedom – is unsuccessful has been discussed further by Smith (1998).

analysis of liberalism mentioned above, in which the legitimacy of the liberal governing rationality is coupled with truth production – truth emerges as a product of market activity, and this capacity for truth generation imbues legitimacy on the governing rationality which enables it.

Davies develops the idea that competition is the central organising principle of neoliberalism. Competition inherently results in an unequal outcome so neoliberal theorists encourage inequality as emblematic of a well-functioning competitive system such as a market. Herein lies the ‘paradox’ of competition: neoliberals recommend active intervention by the state to promote competition, rather than a laissez-faire liberal view of letting competition arise as an emergent property of market relations.¹⁵⁴ Neoliberalism is heavily interventionist – the frequent denial of this is perhaps an instance of ‘strategic forgetting’ – but at the level of social policy to support the market, rather than intervening in the market itself (Foucault 2008: Ch. 6). In order for the neoliberal project to be successful, on its own terms, ‘the conditions for its success must be *constructed*, and will not come about “naturally” in the absence of concerted effort’ (Van Horn and Mirowski 2009: 161).¹⁵⁵ This is why Plehwe (2009: 10) argues that the primary concern of Mont Pelerin Society neoliberalism was ‘the problem of how to secure a free market and to appropriately redefine the functions of the state in order to attain that goal’; or as Peck phrases it, the state was to act ‘as the guarantor of a competitive order’ (Peck 2010: 42).

As neoliberal theory evolved in the decades following Hayek’s early work, *competition* – rather than *competitive markets* – began to be seen as the primary organising principle of economic exchange. Davies offers two theories which illustrate this point: Coase’s work on transaction costs, and Schumpeter on entrepreneurship’s ability to promote uncertainty in capitalist markets by ‘creative disruption’. Both these theorists’ work shift the discourse away from pure markets and towards a system where power and hierarchy can wield influence through competitive personalities. In these theories, Davies identifies metaphysical assumptions that act as the tacit norms upon which neoliberal theory relies for authority – if these assumptions fall short then this authority dissipates. The definition of ‘competition’ relies on competitors to have some degree of equality at

154 Though note that Foucault argued that liberalism already inherently fulfilled this function of creating and managing freedom (Foucault 2008: 63–65).

155 The economist Lindbloom (2001: 258–59) has also written of the market as a ‘state administrative instrument’.

the outset and some shared rules to abide by, and result in inequality. According to Davies, the two norms of justice (equality) and violence (inequality) must both be present and in tension in order for competition to exist. Individual freedom is regarded very differently within neoliberalism compared with classical liberalism, as Olssen and Peters (2005: 315) argue:

Whereas classical liberalism represents a negative conception of state power in that the individual was taken as an object to be freed from the interventions of the state, neoliberalism has come to represent a positive conception of the state's role in creating the appropriate market by providing the conditions, laws and institutions necessary for its operation. In classical liberalism the individual is characterized as having an autonomous human nature and can practise freedom. In neoliberalism the state seeks to create an individual that is an enterprising and competitive entrepreneur.

Indeed, the creation of entrepreneurs became central to later neoliberal theory. In the 1960s, the 'rational choice theory' of George Stigler, William Riker, James Buchanan and Gordon Tullock¹⁵⁶ was influential in 'extend[ing] the analysis of man as a utility-maximizing individual into the realms of politics, government bureaucracy, and regulation' (Stedman Jones 2012: 126). This theory was instrumental in re-purposing rational choice models from neoclassical economics into new areas – a defining feature of later neoliberalism (Stedman Jones 2012: 88). Applying market-based approaches to non-economic spheres was also a key of aspect of the 'human capital' ideas of Becker, which have become influential in higher education policy (see Chapter 6).

Davies outlines how the neoliberal ideas of the Chicago School of Law and Economics – which under Director's leadership in the 1960s shifted theory away from 'market fundamentalism' by becoming increasingly sceptical of whether the state should play a prominent role in intervening in the market in the name of efficiency – became normalised within law. In effect, this influence sought to replace

156 Buchanan and Tullock were trained at the University of Chicago and then founded a research program at the Virginia Polytechnic Institute, commonly referred to as the Virginia school (Stedman Jones 2012: 126–30).

legal ideas of *justice* with neoliberal economic ideas of *efficiency* – in other words, judges should apply economic rationality rather than the rule of law (Plehwe 2009: 31) – a prime example of the expansion of ‘market-based principles and techniques of evaluation’ into a realm outside of economics. From the late 1970s, Chicago School ideas became dominant within competition law in the US, and from the 2000s, within the EU, leading to a decline in regulatory intervention.

Davies writes that as with the replacement of traditional legal authority with economic judgement, the rise of notions of ‘national competitiveness’ transformed state authority into a form of strategic decision-making imported from business strategy. Competitiveness became the measure of success at all levels of leadership, whether national/supranational or in the individual firm – and so representation and democratic accountability are no longer the primary sources of legitimating authority. (The following chapter will explore the implications of this for higher education.)

In light of all this, for Davies, the distinguishing feature of *neoliberalism* is the expansion of ‘market-based principles and techniques of evaluation’ into all areas of society (Davies 2014: 21–22; see also Foucault 2008: 329). Neoliberalism is concerned not purely with the expansion of *markets* but with *market-derived forms of measurement and evaluation*.¹⁵⁷ One of the main reasons that Davies’ work is so useful for understanding contemporary neoliberalism is the focus on it as an ongoing process; of the continual ‘economisation of everything’ (see also Brown 2015),¹⁵⁸ rather than a static ideology to be applied. As Ward and England argue, ‘rather than reifying neoliberalism as a monolithic entity, it may be more productive to speak of ‘neoliberalization’ as an always partial and incomplete process (Ward and England 2007, in Bell and Green 2016).

So far this chapter has been primarily concerned with understanding what neoliberal ideas are and the historical conditions of their early development. In the late 1970s a transition began whereby neoliberal ideas moved from occupying a background niche within academia and think tanks to becoming the dominant policy

157 It can be argued that measurement and evaluation have created the ‘audit society’ described by Power (1997). As Olssen and Peters (2005: 315) posit, ‘for neoliberal perspectives, the end goals of freedom, choice, consumer sovereignty, competition and individual initiative, as well as those of compliance and obedience, must be constructions of the state acting now in its positive role through the development of the techniques of *auditing*, *accounting* and *management*’.

158 See Çalışkan and Callon (2009), discussed by both Davies and Brown, on the influence of economics as a discipline on the actual economy.

perspective in liberal democracies (Stedman Jones 2012: 1). As Peck (2010: 4) argues, this ‘neoliberalisation’ was not inevitable. So how did the transition occur?

The emergence of neoliberal hegemony: moving from theory to policy

The rise of neoliberal hegemony from the end of the 1970s could be seen as a triumph of Hayek’s long-term agenda of slowly establishing neoliberal ideas throughout academia, law, journalism, and policymaking via a transatlantic network with the Mont Pelerin Society and the Chicago School of economics at its heart. However, the contingent and opportunistic exploitation of specific political events in the 1970s was also crucial (Stedman Jones 2012: 179). Free market and monetarist ideas had started to move out of the theoretical arena and find their way into policy as early as the 1960s,¹⁵⁹ as dissatisfaction with social democratic ideas led to a greater willingness to countenance market-based solutions (Ibid., p. 5). This dissatisfaction increased during the 1970s, which were a time of political and economic turmoil in the US and UK. A combination of numerous factors – the end of the Bretton Woods agreement,¹⁶⁰ the first oil crisis in 1973,¹⁶¹ stagflation (i.e. high inflation with high unemployment), significant industrial action in the UK, and Britain applying for a loan from the IMF at the end of 1976 – led to the collapse of the post-war settlement. In response, the Labour and Democratic Party administrations began implementing some neoliberal policies, with a symbolic shift occurring in the UK when the Labour Callaghan government in 1976 changed focus from full employment to tackling inflation – a hallmark of Friedman’s monetarist policy (Stedman Jones 2012: 5, 179, 216–17, 241–42). The Callaghan government’s experimentation with monetarism was not ideological but rather it was regarded as a practical solution to pressing economic problems. It later became apparent that the economic information these decisions were based on was flawed (Childs 2012: 205).

159 Conservative MP Enoch Powell had unsuccessfully tried to introduce monetarism as early as 1957 (Stedman Jones 2012: 190–97). Links between the Conservative Party and Hayek go back even further; Shearmur (2006) has documented how Hayek’s *Road to Serfdom* found favour with some people within the Conservative Party when it was published in the 1940s, but struggled to gain wider acceptance.

160 The US abandoned a fixed exchange rate in 1971 and the UK followed suit in 1972.

161 The crisis was caused by the Organization of Petroleum Exporting Countries (OPEC) raising oil prices.

The 1979 election of Thatcher in the UK, and 1980 election of Reagan in the US, brought neoliberal ideology to the forefront of policy-making. The link neoliberals made between economic and political freedom helped to sell their ideas. The Keynesian notions (such as demand management and high social spending) that had dominated economic policy from 1945 to the 1970s were jettisoned in favour of free market policies. However, it is important to recognise the slow pace of change in government policy, with any new administration maintaining significant continuity with many previous policies. Those politicians who actively supported Chicago School-style policies found support in think tanks, which played a leading role in spreading neoliberal ideas and converting them into implementable policy (Stedman Jones 2012: 134–35). In Britain this included institutions such as the Institute of Economic Affairs, Centre for Policy Studies,¹⁶² and the Adam Smith Institute. It was the successful merger of neoliberal economic policy with socially conservative ideas (e.g. anti-immigration, ‘family values’) within the Conservative Party in the UK and Republican Party in the US that finally brought neoliberal ideas into the mainstream. By this point it was the Chicago School ideas of Friedman, Stigler, Becker, and their colleagues that were on the ascendant in neoliberal circles – centred around think tanks and the Mont Pelerin Society¹⁶³ – rather than Hayekian or ordoliberal ideas. Friedman himself had been an economic adviser to all Republican Party presidents and presidential candidates since 1964: Barry Goldwater, Richard Nixon, Gerald Ford, and Ronald Reagan (Stedman Jones 2012: 108–09).

Stedman Jones (2012: 5–6) argues that while neoliberal policy was seen as a solution to particular political and economic problems of the 1970s, there was nothing inevitable about the subsequent rise of belief in free markets and deregulation to hegemonic status.¹⁶⁴ The initial introduction of neoliberal ideas into policy through technical economic measures to address the economic crises became the entry point for free market ideas as a whole to take centre stage in a wide range

162 The Centre for Policy Studies demonstrates the closest relationship of all think tanks to a specific political party – it was founded to provide policy ideas for the Conservative Party (Stedman Jones 2012: 161). The majority of other think tanks were nominally ‘party-neutral’ albeit with a closer affinity to the political right.

163 Hartwell (1995: 213) has made clear the deep influence of Mont Pelerin Society members on the Reagan administration.

164 Even the former Conservative Chancellor of the Exchequer, Nigel Lawson, claimed that ‘It is quite possible to be a monetarist and a central planner’ (Lawson 1992).

of areas of public policy (Ibid., p. 181). Under different economic or political conditions, the conjoining of these two strands of neoliberal thought – macroeconomic ideas about control of money supply, and the primary importance of economic liberty – may not have occurred in political discourse and the belief in free markets may not have risen to hegemonic status. The Chicago School’s emphasis on developing technical policies that were ready to be implemented when the opportunity arose proved to be an effective strategic move. As mentioned above, it was monetary policy in particular that became the vanguard of implementing neoliberal policies more widely:

Monetarist ideas seemed to offer an alternative way of running an advanced economy, one based on a return to purer free market economics. However, this hope largely rested on a conflation of monetarism with a theoretically separate set of arguments about the supposed superiority of markets over government intervention in the economy. The importance of freeing markets – through liberalization, lower taxes, deregulation, and privatization – became known as supply-side reform, so called in contradistinction to Keynesian demand management. [...] Market mechanisms were to be an alternative to public provision, benefits, and subsidies. These supply-side policies have been retrospectively allied to the monetarist analysis of the failures of demand management by observers of the programs of the Conservative and Republican administrations of Thatcher and Reagan. In fact, they should be seen as distinct.

(Stedman Jones 2012: 216)

Monetarist economic policy may have been introduced by the administrations of Callaghan and Carter, but it was the Thatcher and Reagan administrations that went beyond this and began the gradual application of the wider neoliberal philosophy – free markets, financial deregulation, privatisation, tax cuts – to public policy. Despite becoming synonymous with these ideas, Thatcher was a relatively recent convert to monetarism when she took office in May 1979 (McSmith 2011: 17–21). Indeed, privatisation and union reform did not become central to Conservative strategy until the mid-1980s (Stedman Jones 2012: 257–59), which may be linked to Thatcher’s increased popularity and confidence following the Falklands war. The

fact that the beginning of the neoliberal trend towards introducing market mechanisms into more and more areas of public policy occurred via Friedman's monetarism, which could be portrayed as technical and 'apolitical' (or at least beyond party politics), rather than via Hayek's passionate arguments for liberty, allowed neoliberalism to take hold. That these technical policies could to an extent be separated from the differing social policies of the left and right goes some way to explaining how neoliberalism can be compatible with authoritarian and anti-liberal regimes, as in the case of Chile.

In 1973, General Augusto Pinochet overthrew the democratically-elected government of Salvador Allende and established a military dictatorship in Chile. Pinochet's economic policy was led by Chilean economists who had been trained at the Chicago School of economics (Fischer 2009; Valdés 1995). The changes that were implemented – removing tariffs, reforming economic institutions, controlling the money supply – were similar to those later enacted elsewhere by democratically-elected regimes, so did not *require* authoritarian or military rule to be introduced but the experience of Chile shows that neoliberal economic ideas are compatible with such regimes (Valdés 1995). This is another indicator that the neoliberal conception of freedom – which, after all, is supposedly the primary reason for neoliberalism – is highly divergent from conventional understandings of political freedom that focus on democratic participation.

From the brief historical context sketched so far, it is already clear that the common narrative that the election of Thatcher and Reagan signalled a definitive introduction of neoliberalism into policy is too simplistic. Not only had Chile implemented Chicago-style economic reforms and begun the expansion of market approaches to other areas of society (Fischer 2009: 324) many years before, but in post-war Germany ordoliberal ideas had been fundamental in founding the new democratic state ('social market democracy') under Chancellors Konrad Adenauer and Ludwig Erhard, which was in turn an inspiration to Thatcher-era Conservatives (Hartwell 1995: 214–15; Stedman Jones 2012: 125–26). The links between these different regimes were clear to some – one of the attendees at the Mont Pelerin Society meeting in Chile in 1981, Wolfgang Frickhöffer, 'affirmatively linked Pinochet's efforts to the post-World War II German efforts to secure a social market economy under Ludwig Erhard' (Fischer 2009: 327). And these countries were not alone: France slowly began its own turn towards neoliberalism following the 1978

election, under the Prime Minister – and liberal economist – Raymond Barre (Behrent 2016: 33–34), and neoliberalisation was also underway elsewhere including in Turkey and Brazil (Connell and Dados 2014).

The complex international nature of this piecemeal adoption of neoliberal policy ideas means it is important to be careful with the portrayal of the globalisation of neoliberalism. The spread of neoliberalism beyond Western Europe and North America was spearheaded by the ‘structural adjustment’ policies of the World Trade Organisation (WTO), World Bank, and International Monetary Fund (IMF) (Stedman Jones 2012: 8). In return for development loans, developing nations were required to implement policies of privatisation, deregulation, and trade liberalisation – a move perceived by critics in the anti-globalisation movement as a form of American ‘economic imperialism’.¹⁶⁵ However, this neoliberalisation was not simply the global imposition of Western ideology. The general outline within much of the literature cited in this chapter is that neoliberalism arose as a theoretical project of intellectuals in the global North and subsequently spread internationally as a one-way process of the North asserting its power over the global South in new ways. If we try to understand neoliberalism as praxis (mutually interacting theory and practice), rather than as a straightforward application of theory in different policy contexts, then the role of countries and peoples in the global South could be better understood as policymakers within each country coming to embrace neoliberalism as in their own interests. Bockman and Eyal (2002) refer to this co-production of neoliberalism as ‘dialogic’, which ties in with the work of Peck (2010: 24) on the shape-shifting nature of neoliberal policy and its ability to attach itself to a variety of political contexts. Connell and Dados (2014) have argued that the development strategy applied *in* and not just *to* the global South from the 1970s was central to neoliberalism’s rise as a global hegemonic force and we must consider multiple perspectives on this process: ‘Neoliberalism is not a projection of Northern ideology or policy, but a re-weaving of worldwide economic and social relationships’ (Connell and Dados 2014: 124). The rise of neoliberal hegemony in various contexts had both domestic and transnational roots (Plehwe, Walpen, and Neunhöffer 2006: 19). Agriculture and land ownership were key sites of policy

165 The phrase ‘economic imperialism’ was in fact first coined by Virginia School economist Gordon Tullock (Fischer 2009: 324). So this term has two meanings – the imposition of economics *as a discipline* on other academic disciplines, and a ‘new imperialism’ of global economic exploitation.

development, with structural adjustment programmes contributing to ‘the restructuring of the post-colonial state’ (Connell and Dados 2014: 121). Just as Callaghan and Thatcher both saw expedient political reasons to enact elements of Chicago School ideas, so did politicians in the global South. If we keep in mind the difference between neoliberal ideology and ‘actually existing neoliberalism’ (see Brenner and Theodore 2002), then ideology may simply play a supporting role in justifying intellectually the actions that are desired by the capitalist class.

The consolidation of neoliberal hegemony was cemented with the gradual adoption of neoliberal policy by the centre-left. Although, as noted above, centre-left parties in the UK and US had flirted with elements of monetarist policy in the late 1970s, it was under the Thatcher and Reagan governments that market logic began to be applied across all policy domains. In the UK, by the time the Labour Party returned to power in 1997 under the leadership of Tony Blair, the party had abandoned much of their socialist heritage and proclaimed a new centrist ‘third way’ (see Giddens 1998) that embraced the application of market logic to social life. Although the embrace of neoliberal policy by New Labour and Clinton’s Democrats was not completely out of step with their parties’ histories, their neoliberal turn can still be regarded as an example of ‘the hegemonic capacity of neoliberalism to absorb and neutralise potentially counter-hegemonic forces and ideas’ (Bieling 2006: 221). However, despite the comprehensive reach of neoliberal ideas into all areas of policy by the first decade of the twenty-first century, the political project of neoliberalism has not reached an end point. As Plehwe and Walpen (2006: 45) put it,

Neoliberal hegemony does not find expression in the achievement of a defined end state of ‘neoliberalism’; rather, neoliberal hegemony is better understood as the capacity to permanently influence political and economic developments along neoliberal lines, both by setting the agenda for what constitutes appropriate and good government, and criticizing any deviations from the neoliberal course as wrong-headed, misguided, or dangerous [...] neoliberal networks of intellectuals and advocacy think tanks predominantly aim to influence the terms of the debate in order to safeguard neoliberal trajectories.

Thus an open-ended process of neoliberalisation is still ongoing. Possible techniques

of counter-hegemonic resistance to neoliberalisation, particularly with regards to higher education and scholarly knowledge, will be discussed in Chapter 8. The final section of this chapter will now turn to a discussion of how despite neoliberalism's rhetoric of freedom, its policies have failed to produce a more free and open society.

Neoliberalism as closure

In the previous sections we have seen that neoliberal ideas were developed over the course of several decades, and were incrementally implemented through public policy until by the end of the twentieth century neoliberalism had become the dominant hegemonic political ideology across much of the world. A central aspect of neoliberal ideology is a particular conception of *liberty*, conceived wholly in economic terms. In this section, I will argue that rather than the promised freedom of the 'open society', neoliberalism has in fact resulted in a *closure* of political and social freedom. If we take a view of freedom that moves beyond individual economic freedom and incorporates collective and social action, the empirical evidence suggests that under neoliberal regimes freedom has increased for capital at the expense of political autonomy for the majority.

The 2007–09 financial crisis led to upheaval in the global financial system. Even though financial deregulation has been highlighted as a prime cause of the crisis,¹⁶⁶ the political response was not to reject the overall policy direction but rather to 'double down' and continue – and even expand in scope – market-centric policies. This response was not unprecedented; the 'bail out' of financial institutions followed a similar pattern to actions taken by the Chilean government during the 1983 financial crisis there (see Fischer 2009: 329). Theorisations of post-crisis neoliberalism have spoken of post-neoliberalism or even 'zombie' neoliberalism (Peck 2010a), i.e. the ideology is clearly dead but somehow still lurching forwards. The continuation of neoliberalisation shows the strength of its hegemonic status and can be attributed to both a lack of perceived alternatives and also the belief in the free market as 'utopian economics' (Cassidy, in Stedman Jones 2012: 339). Exhortations that 'there is no alternative' and we have reached 'the end of history', culminating in perpetual liberal democracy, have been commonplace since the late

166 For a discussion of the causes of the crisis see Stedman Jones (2012: 338–41) and Mirowski (2014).

1980s (see Fukuyama 1992). But the ‘end of ideology’ is itself an ideological construct – indeed, ‘as the economic sociologist Jamie Peck has argued, the ideal of the pure free market has always been unobtainable, as utopian an idea in its own way as the Marxist illusion of a classless society’ (Stedman Jones 2012: 20). (Theoretically, in a true free market whereby all participants have full knowledge of everything taking place within the market, it is impossible to generate profits off a single idea after its initial introduction to the marketplace because competition erodes the margin down to zero. The ideology of free-market economics is rather utopian,¹⁶⁷ even if its practical results always fall short of the ideal.) Ironically, the exhortations of Popper against the dangers of historical determinism appear to not have been heeded by later advocates of neoliberal economics.

If neoliberal reason has indeed saturated political discourse to the extent that no alternative policy directions can be considered, this does not bode well for the idea of a plural democracy. In *Undoing the Demos* (2015), Wendy Brown develops the idea of neoliberalism’s closing of democracy. Brown outlines how neoliberalism, by reshaping all human conduct (of both state and persons) into economic terms, poses a threat to the future of democracy. The governing rationality of neoliberalism is actively turning us into the rational-actors of *homo oeconomicus* and democracy will not necessarily survive this process. Brown argues that an active fight for democracy is needed if we are to retain enlightenment values of equality, freedom, and democratic rule.

Like Davies (2014, see above), Brown sees the economisation of all realms of life, even those which are not explicitly monetised, as a defining feature of neoliberal rationality. It is the application of market-like logic to everything which takes neoliberalism beyond simply a ‘market fundamentalism’ and into the role of shaping individuals into *homo oeconomicus* as described by Foucault (2008).¹⁶⁸ Brown extrapolates from this point to describe how the conversion of citizens to ‘human capital’ reconfigures individuals’ relations to the state and to each other, with liberal values of freedom, equality, and popular sovereignty disappearing.¹⁶⁹

167 Friedman’s vision was ‘very much a utopian one, centered on a fantasy of the perfect free market’ (Stedman Jones 2012: 86).

168 See also Becker (1993) for the Chicago economics perspective on human capital.

169 Olssen and Peters (2005: 319) argue that it was Buchanan’s public choice theory that marked the end of the liberal respect for personal freedom within neoliberal theory, when the market began to be seen as a tool for regulating and controlling public life:

the positive arm of the productive state effectively extracts compliance from individuals in

Brown engages with Foucault's *The Birth of Biopolitics* (2008), in which Foucault depicted neoliberalism as remaking the liberal art of government; 'a normative order of reason that would become a governing rationality' (Brown 2015: 50).¹⁷⁰ This framing reveals the specific implementations of neoliberalism as expressed through government policy to be the application of this governing rationality to various extant political spaces.

As Brown argues, the 'subtle shift from exchange to competition as the essence of the market means that all market actors are rendered as little capitals (rather than as owners, workers, and consumers) competing with, rather than exchanging with each other' (Brown 2015: 36). This notion ties in with the apparent disappearance of equality from the neoliberal imaginary – Davies (2014) argues that neoclassical economics rests on a competition wherein participants are equal at the beginning and unequal at the end, whereas under neoliberalism, all individuals are included in the competitive process but with no protections to guarantee equality.

The political situation in Greece following the bail out and loans from the European Union and International Monetary Fund serves as a potent example of how political choice is restricted by the neoliberal reason at work in supranational institutions. A far-left government, formed by the party Syriza, was elected with a mandate to end austerity but then forced to enact further austerity policies at the behest of European Union institutions (Ovenden 2015), demonstrating clearly how neoliberal policy is leading to social and economic devastation for many. There are also examples of attempted political closure in the UK under recent Conservative governments, for instance suggesting the removal of Freedom of Information legislation (Martinson 2015) or undertaking electoral reforms that appear to be designed to make a Tory majority permanent (Beckett 2015). It is worth noting that as of 2014 Freedom House still rated all Western democracies as very free (see Alves and Meadowcroft 2014), although it is important to acknowledge the deep problems with biased metrics such as these that define freedom in terms of facets of liberal democracy.¹⁷¹ It is too soon to say whether the turn towards nationalism and

order to engineer a market order. In doing so it cuts across the traditional guarantees of classical liberalism regarding the spaces it sought to protect—a domain of personal freedom, the rights of privacy involving freedom from scrutiny and surveillance, as well as professional autonomy and discretion in one's work. PCT effectively undermines and reorganizes the protected domains of their classical liberal forebears.

170 For a closer look at Foucault's reading of neoliberalism, in particular his apparent sympathies with some aspects of it, see Zamora and Behrent (2016).

171 Despite the problems with using quantitative metrics to 'measure' the amount of freedom in a

protectionism embodied by events such as the UK's vote to leave the European Union or the victory of Donald Trump in the US presidential election will lead to a genuine and lasting rollback of neoliberal economic policies,¹⁷² but since even the global financial crisis did not achieve this, it is unlikely that the adaptability of neoliberal ideology has come to an end.¹⁷³

Stedman Jones (2012: 36) argues that the formulation of the neoliberal critique by Hayek, Mises, and Popper was against 'the encroachment of state intervention of every aspect of social and economic life' in which they saw 'a creeping totalitarianism'. Under actually existing neoliberal regimes, neoliberalism has itself become an instrument of intervention, with its co-option of the bureaucratic control of social life creating a mode of governance that imposes the same anti-liberal logic feared by early neoliberals. Mises cautioned against the perils of 'collectivist' government intervention, arguing that 'there is no sphere of human activity that they would not be prepared to subordinate to regimentation by the authorities' (Mises 2014: 4). By the end of the twentieth century the saturation of all society with a single logic had, instead, occurred in the name of free market capitalism.

The combination of neoliberal reason with disciplinary apparatuses is a demonstration of how the 'totalising'¹⁷⁴ effect of neoliberalism in applying market logic to all aspects of the political, economic, and social realms must be reconciled with its plural nature. Adaptability in applying economizing logic to institutions existing under a variety of conditions explains how neoliberalism can be effective in holding sovereign power in very different political situations, including 'closed' regimes. Hence Harvey's depiction of 'neoliberalism with Chinese characteristics' (Harvey 2005), and the fact that neoliberal doctrine has remained the dominant hegemonic position within contemporary global politics despite the 2007–09 financial crisis. This adaptability is also noticeable in neoliberalism's ability to perpetually reinvent itself through strategic forgetting (see Mirowski 2014, Fisher

country, such approaches do attempt to specify in detail particular aspects of social life which can be regarded as demonstrating freedom, something that Hayek did not do.

172 Indeed, Trump has 'outsourced much of his administration's budgeting' to the Heritage Foundation (Klein 2017), which signals an attempt at business as usual.

173 Some commentators and researchers are more convinced that the tide has turned on the neoliberal era. For instance, Penny Andrews has termed the new era 'digital dissensus': 'We had the post-war consensus, then the (neo)liberal consensus, and now we are somewhere else entirely—what I call a digital dissensus, quick to jump to outrage and fragmented into echo chambers' (quoted in Mina 2018).

174 Although see Peck (2010: 16–20) on the dangers of seeing it as totalising.

2009). The rhetoric of individual freedom which is used to sell neoliberal ideas diverges significantly from the authoritarianism of neoliberal regimes such as Pinochet's Chile; market freedom has come to be reconciled with bureaucracy; and conservatism has been accommodated in order to appeal to the political right. 'Truth' and logical consistency do not appear to be of interest to current policy elites – though to regard the current political climate as one of 'post-truth' runs the risk of romanticising an imaginary past in which truth was sought above other priorities.¹⁷⁵

The neoliberalisms of Hayek and the Chicago School were on the surface anti-statist in that they relegated the role of the state to merely an enforcer of the free market.¹⁷⁶ However, by promoting market-based policy in all areas of government, neoliberals did not remove the influence of the state from people's lives, rather they shifted the nature of the state-citizen relationship. The market-state now acts as enforcer of market logic in an attempt to regulate people's thought and behaviour. For example, in education, the marketisation and ongoing erosion of 'public good' notions has not lessened the influence of the state in people's education, but changed the nature of that influence to one of the state's new role as enforcer of market principles, notably competition. By embedding market principles throughout all areas of the state's influence on citizens, neoliberalism does not diminish the state's power but diffuses it – changing the nature of that power to harness the potential of society's more hidden, diffuse, and entrenched power relationships. Therefore far from increasing the liberty of citizens living under a neoliberal regime, all possibilities of alternative ways of living are systematically removed and an enclosure of thought is the result ('there is no alternative'). This analysis may go some way to explaining the appeal that neoliberal ideas hold for so many different political leaders. If neoliberalism is, at root, a means of tightening political control, but its rhetoric manages to successfully promote itself as a champion of freedom – as a way of increasing liberty – then neoliberal ideas can provide cover for politicians to centralise control under the illusion of serving the public good.

175 As reading Arendt (2015 [1954]) reminds us, an earlier form of post-truth was a crucial part of totalitarian propaganda. Court [n.d.] frames this point as: 'Totalitarianism's "supersense" construes all factuality as fabricated, therewith eliminating the ground for distinguishing between truth and falsehood'.

176 Behrent argues that the antistatism is what attracted Foucault, who understood power to be diffused throughout social relations rather than solely being embodied in top-down authority (Behrent 2016: 29). Hartwell (1995: 222) has argued that a core view of Mont Pelerin Society members was that the mechanism of the free market, when applied to society, 'disperses power'.

Tying together two of the key strands of neoliberal thought outlined in this chapter – a conception of freedom based solely on economic freedom, and the economisation of everything – leads to the idea that neoliberalism is bringing about an *economisation of freedom*. Freedom is itself only understood in market terms. When neoliberals talk about freedom and openness, they are talking about freedom for capital, not people. This is very different to the focus of the contemporary open movements discussed in the previous chapter. However, Chapter 4 also made clear the potential for open decentralised systems to exert control over people, which correlates with Olssen and Peters’ (2005: 316) argument that under neoliberalism ‘markets have become a new technology by which control can be effected [...] a technique by which government can effect control’. Therefore open advocates who are working from a social justice perspective should be wary of the potential for openness to be used for neoliberal ends.

Herein lies a key question of this thesis (as outlined in Chapter 1): by bringing open access into the realm of government policy, to what extent has the openness of open access been co-opted by the openness of neoliberalism (i.e. freedom for capital)? The next chapter will examine the neoliberalisation of higher education, which will lead on to a discussion in Chapter 7 on the current state of open access policy in the UK with reference to this political background. Finally, in Chapter 8, a response will be made to the contention that there is no alternative to political closure – alternatives do exist but have not yet found their way into mainstream policymaking. One of these alternatives, the commons, is posited here as a potential direction for open access policy. As with the enclosure of common land, fighting for a commons in the realm of ideas and knowledge is a means of ensuring that there *is* an alternative.

Chapter 6. Neoliberal Higher Education

Over the course of several decades from the 1970s onwards, neoliberal ideology became embedded in the policymaking process across the world. Whereas Chapter 5 analysed neoliberal *ideas* in depth, there are limits to the level of insight that can be gained by analysing the abstract internal logic of a political idea or concept; in order to more fully understand the effect of neoliberalisation, it is necessary to see how neoliberal ideas are translated into policy, and examine the impact of the implementation of neoliberal policy in specific real-world situations. Therefore this chapter will focus on one area – higher education – and demonstrate ways in which neoliberal ideas have influenced policy and led to significant changes in how higher education is funded and governed. Under the influence of neoliberalism, the discourse around higher education has shifted away from traditional notions of its value such as having an important civic role in society (viewing higher education as a ‘public good’, see Collini 2012; Holmwood 2011), or simply as a community of scholars seeking to better understand the world,¹⁷⁷ and towards seeing it instead as a means of producing efficient workers and making a positive contribution to the economy. In this chapter, I am not attempting to make a claim about whether the university ever lived up to the ideals held about it; educating workers has long been one function of higher education, and as Chapter 3 has shown, for much of its history only a privileged elite have been able to attend university. Rather, the purpose here is to show that in recent years, especially during the period analysed in the next chapter regarding open access policy (2010–15), neoliberalisation has been occurring in the UK higher education sector. This process of neoliberalisation has not occurred uniformly or without resistance, but, as shown below, the direction of travel is clear.

The first part of this chapter looks at the neoliberalisation of higher education, showing how the ideology explored in Chapter 5 has become embedded in the higher education sector. It analyses the ways in which higher education policy and governance has been influenced by neoliberal ideas. The focus is primarily on the

¹⁷⁷ The classic example of the liberal ideal of the university in the nineteenth century is that expounded by John Henry Newman’s *The Idea of a University* (1976 [1858]), in which he argued for a litany of personal and public benefits that arise from a university education (see also Collini 2012: 39–60; Turner 1996).

UK – and especially England – since that is the main subject of this thesis, although similar processes are visible elsewhere in the world. The rest of the chapter examines the UK’s higher education policy in the neoliberal era by highlighting neoliberal aspects of specific instances of legislation and other areas of policy. By doing this, an increasing commitment to neoliberal values over the past 30 years becomes clear. This chapter paves the way for Chapter 7, which analyses the UK’s open access policy within this neoliberalised context.

Neoliberalism in UK higher education

In Chapter 5, neoliberalism was understood as a political project to re-shape all social relations to conform to the logic of capital. This means that in each area of life, policymakers seek to introduce certain processes and mechanisms that transform our understanding of ourselves and our relationships with each other, until our behaviour is viewed solely in market terms. The policy mechanisms used to enact neoliberal ideas through governmental action include, among other things: the privatisation of public services through outsourcing and the sale of public assets; enforcing competition for resources by creating quasi-markets within the public sector; and replacing universal services with qualified support that places a greater financial burden on individuals rather than the state. Higher education is no exception to the pervasive reach of neoliberalism in public policy (see Busch 2017; Giroux 2014; Ward 2014). Specific instances of the neoliberalisation of higher education through policy decisions are analysed in the next section. First, a discussion of how the general principles of neoliberal ideology have been embedded in the higher education sector will make clear the broader political context underpinning particular policies.

One such principle is that of privatisation – the transfer of public assets to the private sector.¹⁷⁸ The theory is that the private sector can run services more efficiently than the public sector because market pressures force private firms to

178 Though McGettigan (2013: 9) has argued that we need a far more nuanced understanding of privatisation when it comes to higher education. (Since McGettigan’s work has strongly influenced this chapter, it is worth noting that his particular political angle is firmly in opposition to the processes of neoliberalisation described here, albeit he avoids using the word ‘neoliberalism’.) Brown and Carasso offer the following definition of privatisation: ‘the penetration of private capital, ownership and or/influence into what were previously publicly funded and owned entities’ (2013: 24).

innovate and reduce their costs; competition from other firms means that they need to constantly find ways to make ever-greater savings and offer the best possible service to their customers. Extensive empirical evidence does not support this theory (Bacchiocchi, Florio, and Grasseni 2005; Hall and Lobina 2005: 1; Willner and Parker 2002: 1–6). In the UK, beginning with the Thatcher government and continuing unabated throughout all successive administrations, numerous sectors have been privatised as this theory has been put into practice. The Conservative governments under Thatcher and Major took the most overtly aggressive approach to privatisation, with the direct sale of public assets including telecoms, energy, water, and rail services (Parker 2004). The New Labour governments that followed also contributed to privatisation but in a different way, one that would have great impact on healthcare and education. Rather than being sold off, these sectors have instead seen a gradual increase of private involvement in the running of essential public services. With the principles of ‘New Public Management’ – based on the ideas of neoliberal theorists such as James Buchanan, whose public choice theory was mentioned in Chapter 5 – taking hold across government in the 1980s and 1990s, New Labour governments were keen on using Private Finance Initiatives (PFI) to outsource public sector contracts to private firms. This approach gradually resulted in more and more public services being tendered out to the lowest bidder. Under the subsequent coalition and Conservative governments, an ever-increasing number of schools and NHS services are being fully managed by the private sector (Exley 2017; Frith 2015). As Shattock (2008) shows, it is within this broader public policy context that UK higher education policy should be viewed.

In higher education, as with the NHS, privatisation has been a piecemeal process. Whether universities and other degree-awarding institutions can be regarded as public or private is somewhat complex, because the vast majority of them are private *institutions* – and hold charitable status (see HEFCE 2017b) – but as *publicly-funded* institutions they could be considered to be within the public sector.¹⁷⁹ However, in recent years the balance of funding has been diversifying to

179 Exceptions include the University of Buckingham and Regent’s University London, which are both private non-profit charities, and the for-profit providers Arden University, BPP University, and the University of Law. These five institutions do not receive direct public funding but do benefit from publicly-backed loans to cover their student fees. Not all institutions have the same corporate form; see McGettigan (2013: 125–28) for a brief overview of the differences and Farrington & Palfreyman (2012) for a thorough legal grounding. It is worth noting that higher education in further education (HE in FE) has historically been subject to greater public

include a much higher proportion of private capital. This process rapidly accelerated following the post-2010 reforms to the funding regime in England that further shifted funding for teaching away from direct public subsidy through grants to private income from tuition fees, as discussed further in the next section. However, deriving an increasing proportion of income from private sources is not a uniquely English issue, and also manifests in other areas of university activity. For instance, universities have found themselves competing for income from industry collaboration, such as research grant funding from projects undertaken jointly with private companies. In doing so, the traditional outward-facing role of universities' civic mission that was – at least in theory – a vital part of their remit during the nineteenth and twentieth centuries (Collini 2012; Holmwood 2011) has taken a back seat to 'knowledge transfer' activities focused more narrowly on income generation and deeper links with the profit-focused private sector, through industrial partnerships or creating spin-off companies to exploit research-derived patents (Greenberg 2007; Geuna and Muscio 2009; Stephan 2015).

McGettigan has argued that the coalition government saw its role as reducing the public sector to merely facilitating market activity, 'to roll back the state to a minimum function – to broker deals between finance and private sector provision' (McGettigan 2013: 8). Such a position has been a consistent belief of neoliberal thinkers since the ordoliberalists in the 1930s – the idea that since there is nothing 'natural' about market competition, the formal conditions for it must be created and maintained, and the role of the state is to move ever closer towards pure competitive markets, resulting in what Foucault referred to as 'a state under supervision of the market' (Foucault 2008: 116; see Chapter 5). Privatisation has profound implications for universities; as Brown and Carasso (2013: 175) have stated, 'there is a fundamental difference between what can be expected from organisations that have as their main purpose the creation of value for their owners – their proprietors or shareholders – and what can be expected from those that aim to create value for their stakeholders'.

The level of privatisation within the higher education sector varies enormously around the world. Around a third of students globally are enrolled in private

accountability – prior to the end of the university/polytechnic divide in 1992, polytechnics were public institutions controlled by local councils (although reliant on central government funding, see Parry 2016 and Pratt 1997).

institutions, though this is more concentrated in Asia and Latin America (Levy 2018). In the US, there is a complex mix of public and private institutions. As with the UK, the influence of neoliberal ideology can be seen in an increasing acceptance of private sector involvement in the US higher education sector (see Giroux 2014; McMillan Cottom 2017; Newfield 2016). McMillan Cottom (2017: 20) describes how the for-profit sector expanded rapidly in the early twenty-first century:

for the first time, the expansion of mass U.S. higher education did not happen in the not-for-profit or state sectors but rather in the financialized sector [...] These were college brands owned by shareholders for whom the credential was a means to profit as opposed to an end [...] In an industry where 90 percent of revenues are generated from enrollment, that means financialized institutions are concerned first and foremost with enrollment growth.

This growth can be attributed to underlying social and economic forces: ‘We might best understand the rapid growth of a new kind of college by understanding the current inequalities in access to (and returns from) traditional higher education’ (McMillan Cottom 2017: 33). However, the legal and policy frameworks that allow for-profit education to exist and thrive require a policymaking environment that is sympathetic to the existence of capital in this space. As such, the suffusion of public policy by neoliberal ideology has provided a perfect set of conditions for the ongoing encroachment of private capital within higher education.

Since neoliberal ideology maintains that the market is the best way of organising human interactions, and for something to be positioned within a market it must have a price, it follows that a process of neoliberalisation requires attaching a price to things that previously did not have one. If a monetary value for something is not readily apparent, a proxy quantity must stand in its place. In other words, under neoliberal orthodoxy, *price*, or a proxy for it, is regarded as the sole indicator of value and therefore to facilitate neoliberalisation everything must be quantifiable and positioned with a market context. Brown and Carasso (2013) have documented how a process of marketisation has occurred in UK higher education, with successive administrations since 1979 believing that market principles should determine the shape of the sector.¹⁸⁰ And this process goes beyond issues around

¹⁸⁰ See also Brown (2011), Foskett (2011), and Molesworth, Nixon, and Scullion (2009). However,

funding and costs – for Davies, as explained in the previous chapter, neoliberalism is concerned not purely with *markets*, centred around the pricing of commodities, but with the expansion of *market-derived forms of measurement and evaluation* into all areas of society (Davies 2014: 21–22; see also Beer 2016). This has strong implications for understanding changes in higher education policy and management in recent decades. The metricisation of higher education shows clearly how neoliberalism has influenced the sector – even in areas which have not as yet had a price put on them,¹⁸¹ quantitative values have become ubiquitous throughout higher education (Busch 2017; Wilsdon et al. 2015). For Davies, in order to make claims of legitimacy under neoliberal conditions, an institution must be understandable in market terms. This is why the ‘knowledge infrastructures’ that underpin the research, education, and knowledge transfer functions of universities have been re-molded into market-compatible forms (Busch 2017: xi–xvii).

The marketisation of higher education highlights one of the problems with the insistence of some early neoliberal theorists such as Hayek that the market and state are incompatible opposites (see Chapter 5). As Brown and Carasso have argued, marketisation has occurred at the same time as increased centralised control over higher education institutions by the UK government (Brown and Carasso 2013: 11–21; see also Busch 2017: 32; Naidoo 2008). This government intervention goes beyond simply setting up conditions in which market activity can flourish; market mechanisms have become deeply entangled in the running and governance of universities. Indeed, Naidoo has argued that ‘rather than the state facilitating and

Macmillan Cottom has argued that there has been a de-coupling of price and prestige in for-profit higher education in the US, which counter-intuitively has occurred during the period of rapid financialisation: ‘Until the Wall Street era of for-profit colleges, price was a fairly good proxy for institutional prestige. A good college was generally a more expensive one. A less expensive college was generally less prestigious. Only with the rapid rise of for-profit colleges and their expansion into upmarket [postgraduate] degrees did price become decoupled from prestige. In the 2000s, suddenly the most expensive colleges were the least prestigious ones. When time is a valuable commodity for the likely for-profit college student, and revenues are derived almost entirely from enrollment, the least prestigious colleges enroll students quickly – leaving them to make sense of it all only after they have invested a significant amount into the enterprise’ (Macmillan Cottom 2017: 140). Therefore the current experiments by the UK government to introduce more market competition between providers may lead to changes in the relationship between price and prestige.

181 It has been argued that the level of tuition fee in England is not really a *price*, because the income-contingent nature of tuition fee loans means that for many graduates there is no difference in repayment level between loans to cover fees of different amounts (McGettigan 2013: 48).

managing the market, the state can actively mobilise market mechanisms to attain political goals' (Naidoo 2008: 2). Despite this deep reach of the government within the sector, it is still possible that in the long run, the current state of marketisation will evolve into an even more privatised sector – the introduction of an internal market or quasi-market within a public sector acts as a precursor to further privatisation, because once an internal market of 'customers' and 'suppliers' has been created, it is easier to open up the market to private providers, as has happened within the NHS.

The rhetoric of 'customers' exercising their purchasing power in a marketplace has become embedded in higher education policy. This, in turn, is linked to the commodification of higher education. Commodification refers to one of the central processes by which the neoliberal agenda of re-shaping all human activity to fit within a market structure is undertaken. When something is turned into a commodity, its *exchange value* is prioritised over its *use value* (Marx 1976 [1867]: 125–63). For instance, a student participating in a commoditised higher education system is supposed to see the value of a degree in terms of its ability to generate economic returns for them at a later date. (The 'student as consumer' issue is covered in more detail in the following section with regards to recent policy changes.) Competitiveness, therefore, is a potent force within a commodified higher education system – if students are purchasers or consumers of goods, then there is competition among 'providers' (i.e. universities and colleges) for their purchasing power. In addition, as Brown (2015) has noted, academic staff are themselves re-figured as competitive agents whose job is to inculcate students with the knowledge and tools to become competitive actors themselves.

Indeed, a key principle of markets is competition. Economic theory that supports market-based solutions to social situations regards competition as a driving force that increases efficiency and improves standards. Under neoliberalism, 'competitiveness' is therefore seen as something to be encouraged in all situations and forms a centrepiece of policy interventions (Davies 2014). We can see this process at work in higher education with the evolution of universities into institutions that behave in a more business-like way, guided by principles of competitiveness, which according to the theory can only be measured in the quantitative categories determined by the experts and sages of business strategy. The prioritising of university rankings in league tables over issues such as what is

actually taught is perfectly in accord with Davies' depiction of the logic of competitiveness. To facilitate this competitiveness, the rhetoric of 'excellence' is frequently invoked as a symbol marker of value by which to rank universities and academics (Moore et al. 2017). In doing so, qualitative judgements about quality are transformed into a simple quantitative form in order to fit into quasi-markets such as university rankings. Neoliberal governments, such as in the UK, have incorporated this competitive ethos regarding higher education within a broader political agenda. Davies (2014) describes the role of state authority under neoliberalism as shifting from playing a supporting role in maintaining efficient markets to one of acting in a managerial capacity to promote the competitive interests of the nation. Under this paradigm, state investment in research and support of 'excellence' in higher education plays a logical and important role in maintaining a nation's 'competitive advantage'.

From the description given so far in this chapter, it is clear that the university under neoliberalism is a very different kind of institution to the liberal humanist ideal of a university that prevailed in previous eras, in which it was seen as fulfilling a civic mission to produce both scholarly knowledge and informed citizens. As the history of access to higher education in Chapter 3 made clear, this ideal was never fully realised, not least because higher education has tended to serve those who are already privileged. Indeed, the liberal project was centred around certain (white, European, male) social subjects, and Readings (1996) argues that the purpose of liberal higher education was to reproduce dominant culture. While recognising these limitations, Brown (2015) argues that the kind of non-instrumental liberal education epitomised by the liberal arts tradition of higher education in the twentieth century United States is incompatible with neoliberalism, so the value of a liberal education has been eroded alongside the ascension of neoliberal thought. As scholars of critical pedagogy studies such as Henry Giroux have shown, education which serves purely instrumental ends – as occurs when neoliberal thought is the structuring principle of higher education – is not adequate for generating an understanding of contemporary power relations, so it fails to instil the knowledge necessary to undertake informed political judgements. It is important to note that there is an implicit elitist undercurrent in Brown's narrative, which implies that liberal arts education is the *only* way to inculcate an informed citizenry, so without formal higher education, people cannot become sufficiently informed. However, the argument that access to

knowledge plays a vital role in democracy is a strong one, which is why Willinsky (2006: 127–42) has used this point to support the case for open access to research, as contributing ‘some small measure to the democratic ideal of an informed citizenship’ (Ibid., p. 135).

Universities have played a unique role in the development of neoliberalism because the ideology was born within the academy. The primary theorists who created neoliberal principles and policies were all employed as academics.¹⁸² However, many academics have fought against the neoliberalisation of higher education. This resistance has taken many forms, from student protests against tuition fees, to activist organising by radical librarians (Quinn and Bates 2017), to advocating for collective feminist practices of ‘slow scholarship’ that embody an ethics of care (Mountz et al. 2015). Although a comprehensive assessment of such resistance is not attempted here,¹⁸³ the fact that these activities are taking place – across various spatial and institutional domains – is evidence that the hegemony of neoliberalism is not total, and so the anti-neoliberal strategies outlined in Chapter 8 may have the potential to gain traction.

Higher education funding and policy in the UK, 2010–15

There have been numerous changes to the regulation and funding of the UK’s higher education system in recent decades, such as the proportion of institutions’ income that is derived from student fees, or which government department is responsible for the sector.¹⁸⁴ For instance, under the Conservative Thatcher and Major governments,

182 In terms of introducing more private capital into universities, neoliberals did often practice what they preached – for instance, the salaries of Ludwig von Mises and Aaron Director were directly funded by businessmen (Stedman Jones 2012: 92, 169).

183 For more on academic resistance see, for example, *In Defence of Higher Education* (2011), Anderson (2008), and Bailey & Freedman (2011).

184 Intervention in the higher education sector is not new, as the government has taken ‘a proactive role in shaping the development of higher education’ since Keele in the 1950s, and the new 1960s universities all relied on state funding at their founding (Whyte 2015: 224, 226; see also Carswell 1986, and Shattock 2012). And as Whyte (2015: 227) states, the expansion of UK higher education in the post-war period (see Chapter 3) relied on interventionist government policy and high level of public funding:

What made all this expansion possible was ever-increasing state support. In 1946 just over half of the income received by the Redbrick universities came from the UGC. By 1961, that figure had risen above 70 per cent. Indeed, including tuition fees, which were overwhelmingly paid by the government, and research funding, the majority of which was

the Education Reform Act 1988 and Further and Higher Education Act 1992 led to the abolition of polytechnics (see Chapter 3) and mass expansion of student numbers (Boliver 2011: 232; McGettigan 2013: 17–18; Wyness 2010). This was followed by the Teaching and Higher Education Act 1998 that, under Blair’s Labour government, first introduced tuition fees (Wise 2016). For reasons of space, this longer historical background will not be discussed in any detail, and instead this section will outline the situation that prevailed during the 2010–15 Conservative-led coalition government, which is the period in which open access policy became embedded (see Chapter 7). As will become clear, higher education finance in the UK during this period was a complex mix of public and private funding.

Education is a devolved policy area in the UK so the Scottish Parliament, the National Assembly for Wales, and the Northern Ireland Assembly have control over higher education policy in their respective nations – the funding bodies for the four nations of the UK are the Higher Education Funding Council for Wales (HEFCW), the Scottish Funding Council (SFC), the Department for the Economy, Northern Ireland (DfE),¹⁸⁵ and until 2018, the Higher Education Funding Council for England (HEFCE). These bodies are not directly controlled by government: ‘With the exception of the Department for the Economy, which allocates funding directly to higher education institutions in Northern Ireland, these entities are non-departmental public bodies and they operate at arms’ length from the government’ (Eve 2017). This situation has resulted in each of the four nations of the UK having different funding and governance arrangements (Gallacher and Raffe 2011; Rees and Taylor 2006), which is particularly noticeable when it comes to charging tuition fees – Wales has lower fees than England for ‘home’ (i.e. Welsh-domiciled) students,¹⁸⁶ and Scotland has no fees at all.¹⁸⁷ So the marketisation of English higher education described below has not occurred in quite the same way in Wales, Scotland, or Northern Ireland. Research funding, however, is to some extent centrally determined, with the Research Excellence Framework (see below) being

also granted by the state, by the end of this period [the 1960s] more than 90 per cent of the universities’ income came from the Treasury.

185 Note that this abbreviation is the same as that used for the British Government’s Department for Education.

186 See Blackburn (2018) for more on this, with recent developments being influenced by the Diamond review (Diamond 2016).

187 When the Scottish National Party first came to power in 2007, they quickly abolished tuition fees for Scottish-domiciled students (Wyness 2010: 13). See Gallacher and Raffe (2011: 471–75) for more on the history of how the Scottish fees situation developed.

administered across the whole of the UK and research council grants potentially available to all UK research institutions.

During the years 2010–15, public funding for the higher education sector was provided by the Department of Business, Innovation and Skills (BIS) which funded both HEFCE¹⁸⁸ and the seven discipline-specific research councils¹⁸⁹ (collectively known as RCUK). The fact that the department name contained the words ‘business’ and ‘innovation’, but not ‘universities’ or ‘higher education’, signals the extent to which the government sees the higher education sector as serving a primarily economic purpose. HEFCE provided various streams of funding to institutions, with the two largest elements being recurrent teaching grants – which were drastically reduced by phasing out funding for humanities and social science subjects (or any disciplines not designated as ‘high cost subjects’) beginning from 2012 (HEFCE 2012; McGettigan 2013: 1) – and research grants in the form of ‘quality-related’ research (QR) funding, or Research Excellence Grant funding (REG) in Scotland (SFC [n.d.]). QR/REG funding is allocated according to institutions’ performance in the Research Excellence Framework (REF), a research assessment exercise that takes place approximately every six years and is jointly administered by the four funding bodies.¹⁹⁰ In this exercise, institutions submit their work to be assessed by panels of subject experts¹⁹¹ and QR/REG funding is then allocated between institutions according to their performance (Stern 2016: 8, 37–38). REF performance is considered to be important for the reputation of both institutions and individual researchers. Indeed, in the prestige economy of UK academia (see Chapter 2), the REF has come to structure academic behaviour and careers (Murphy and Sage 2014, 2015; Nicolas et al. 2017: 6). QR funding totalled £1.6bn in 2015/16 (HEFCE 2015a); other HEFCE funding streams existed as well, such as the catalyst fund¹⁹² and capital grants.

188 The funding bodies HEFCW, SFC, and Northern Ireland’s DfE are funded by their respective devolved administrations.

189 The seven research councils are the Arts and Humanities Research Council (AHRC), the Biotechnology and Biological Sciences Research Council (BBSRC), the Economic and Social Research Council (ESRC), Engineering and Physical Sciences Research Council (EPSRC), the Medical Research Council (MRC), the Natural Environment Research Council (NERC), and the Science and Technology Facilities Council (STFC).

190 Prior to the REF there was a similar initiative called the Research Assessment Exercise (RAE). See Jump (2013) for more on the evolution of research selectivity exercises in the UK.

191 On the use of journal brand as proxy for quality in the REF see Neyland and Milyaeva (2017).

192 The catalyst fund was used to fund projects that supported innovation in further and higher education.

An additional £2.67bn in the same year (2015/16) also originated from BIS in the form of project grants awarded by the research councils (RCUK 2015a). This ‘dual support’ system, in which ‘University research funding is provided by the twin routes of institutional block grants from the Funding Councils based on periodic quality assessment exercises and funding won in peer reviewed competition from the Research Councils’ (Hughes et al. 2013: 1), is designed both to reward institutions for past performance while also maintaining a competitive focus for new research proposals, and it results in research funding being concentrated in particular research-intensive institutions (Ibid., pp. 1–14). The selectivity in both QR funding and research council funding means that UK research operates along principles that Brown and Carasso (2013: 41) have described as a ‘quasi-market’. The competitive nature of the REF surfaces the neoliberal ideology that informs its conception; metrics ‘are not about measurement for measurement’s sake. Rather, they are a means of disciplining universities and academics by laying bare what is valued (and not) in the HE marketplace’ (Feldman and Sandoval 2018: 219–20). Alongside the ‘quasi-market’ of competitive rankings, ‘a variety of legal requirements, bureaucratic rules, and audit mechanisms have been put in place to promote compliance (and sanction noncompliance) with the new market-like rules’ (Busch 2017: 16–17). This point will be returned to in the next chapter when discussing the links between neoliberalism and open access policy.

In the previous section, the introduction of much higher proportions of private capital to the overall income sources for higher education was highlighted as an aspect of privatisation. This process can be clearly seen in the policy changes over the past 20 years by successive UK governments. Tuition fees had been controversially introduced by the Blair administration in 1998 at a rate of £1,000 per year, and raised to £3,000 (in England) in 2004. Following the Browne review of higher education in 2010 (Browne 2010) – instigated by the outgoing Labour government, rather than Cameron’s coalition government that acted upon the recommendations – tuition fees for new undergraduate students in England for the 2012/13 academic year were raised again from £3,225 to £9,000 (Bolton 2015). The £9,000 figure was a cap that universities could charge up to, but nearly all institutions soon charged the full amount (Belfield et al. 2017: 5; McGettigan 2013: 22–23, 34–36). This undermines a central purpose of the loan regime, which was intended to introduce price competition between providers. Alongside the fee

increases, a corresponding reduction in central grant funding took place. The recurrent teaching grant, administered by the funding councils, was withdrawn for humanities subjects. This withdrawal was phased over several years beginning in 2012/13 (HEFCE 2012: 2–4). The overall effect of these funding changes was to replace the teaching grants with student tuition fee income,¹⁹³ so the proportion of higher education institution funding derived from public and private sources has shifted, with the system transitioning towards higher levels of private funding. Statistics collected annually by the Higher Education Statistics Agency (HESA) reflect these changes; in the academic year 2013/14 higher education institutions in the UK received £30.7bn of which £13.7bn (44.5%) from tuition fees and £6.1bn (19.8%) from funding body grants (HESA 2015).¹⁹⁴ See Figure 6.1 below to see changes in funding sources over the years 2011/12 to 2015/16.

There is evidence that fear of debt ‘is deterring poorer students from going to university’, and therefore ‘the current system disproportionately limits opportunities for young people from poorer backgrounds’ (Callender 2017; see also Callender and Mason 2017). Importantly, the various changes to fee levels over the past 20 years have been accompanied by alterations in the amount of money provided as maintenance grants to students – they were abolished in 1998, reintroduced in 2006, and abolished again in 2016, with each abolition replacing the grant with a larger maintenance loan (Brown and Carasso 2013: 84–94; House of Commons Library 2017). These more recent changes only apply to England, since the devolved administrations of Scotland, Wales, and Northern Ireland all provide a greater level of direct financial support to home-domiciled students, such as Scotland providing grants to Scottish-domiciled students since 2001 (Bruce 2012).¹⁹⁵ The fact that

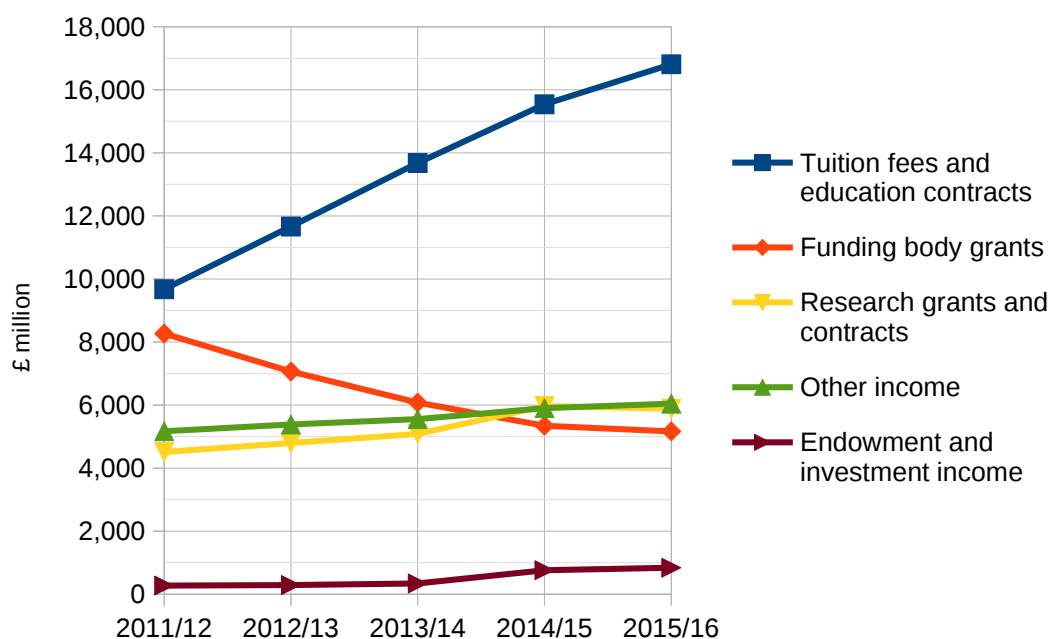
193 As McGettigan notes, the earlier £1,000 and £3,000 fees had been *additional* income for universities, whereas the new £9,000 fee was a *replacement* of state funding (McGettigan 2013: 25–26).

194 The level of public funding is now well below comparable countries: ‘28 per cent of the financing of all tertiary education in UK [in 2014] was from public sources, with 72 per cent from private sources, mostly from students. This was the lowest share of public financing in all 33 OECD countries for which figures were available’, although, ‘It is likely that the OECD 28 per cent ratio underestimates the extent of public subsidies in higher education (as distinct from all tertiary education). In England, the government provides a considerable indirect public subsidy through the underwriting of that part of tuition debt that will never be paid. Some graduates will never earn enough to trigger the income threshold for repayments through the tax system and most will pay back only part of their loans before it is written off. Calculations of this subsidy vary from time to time but it is currently estimated at about 35 per cent of the cost of higher education’ (Marginson 2017).

195 For details of the precise amounts available as grants, see the two reports cited herein from

policy changes influenced by neoliberalism may increase inequality is not surprising given the belief within neoliberal ideology that social and economic inequality is seen as necessary for progress (Davies 2014: 37; Stedman Jones 2012: 8–9).

Figure 6.1 – Income sources for higher education institutions, 2011/12 to 2015/16. Source: HESA¹⁹⁶



Two other significant sources of research funding for UK higher education institutions are medical charities and the European Union (EU). Among medical charities, the Wellcome Trust plays a large role; it spent £866.2m in research grants and other charitable activities in 2015 (Wellcome Trust 2016: 10), with a majority of this going to UK researchers (Wellcome Trust [n.d.]).¹⁹⁷ The role of philanthropic foundations and other non-state actors in funding essential education and research has been subject to critique by authors such as McGoey (2015), who accuses ‘philanthro-capitalists’ of creating the inequalities that they then try to solve.¹⁹⁸ As an

House of Commons Library (2017) and Bruce (2012).

196 Figures obtained from three HESA datasets: Finances of Higher Education Providers 2012/13 (<https://www.hesa.ac.uk/data-and-analysis/publications/finances-2012-13>), Finances of Higher Education Providers 2013/14 (<https://www.hesa.ac.uk/data-and-analysis/publications/finances-2013-14>), and Higher Education Statistics for the UK 2016/17 (<https://www.hesa.ac.uk/data-and-analysis/publications/higher-education-2016-17>), all accessed on 17 July 2018.

197 The Wellcome Trust has consistently spent a large amount on research and related activities each year – £882.2m in 2016, and £1,133m in 2017 (Wellcome Trust 2016: 10; 2017: 9, 29–30).

198 Haider (2008) has written more on the interaction between open access and development, including philanthropy. See also Whyte (2015: 139–42, 199–202) for historical detail on UK

example of some of the ethical issues arising from private funding, the Wellcome Trust derives its income for research from a £23.2bn (as of September 2017) investment portfolio including hedge funds, property speculation, and shares in oil companies (Wellcome Trust [n.d.]; 2017: 20–28). It has resisted calls to divest from fossil fuels despite the known links between climate change and the very global health problems that the Wellcome Trust purportedly aims to solve (Carrington 2015; Kmietowicz 2015).

The EU funds a programme of research activities via the multi-year Framework Programmes organised by the European Commission. The current programme is Framework Programme 8, known as Horizon 2020, which covers expenditure for the years 2014–20. In June 2016 the UK held a referendum on EU membership and a narrow majority voted to leave. At the time of writing negotiations about the terms of exit are ongoing and it is not yet clear exactly what the end result of this decision will be, but the relationship between the UK and the EU is likely to change considerably and it is possible that the UK will need to withdraw from Horizon 2020.¹⁹⁹ The implications of this situation are beyond the scope of this thesis but the effects on future research funding could be significant.

The structure of higher education funding in the UK during 2010–15 is no longer in place. During 2015–18, the Conservative government, now acting without their former coalition partners the Liberal Democrats, continued to reform higher education policy in a neoliberal direction. Although this thesis is primarily concerned with the 2010–15 period, the following section will briefly discuss what followed next in order to show how neoliberalisation is continuing to unfold.

Higher education funding and policy in the UK, 2015–18

The reforms that created the new governance and funding regimes enacted during 2015–18 began with the release of three policy documents published in Autumn 2015: the green paper *Fulfilling Our Potential: Teaching Excellence, Social Mobility and Student Choice* (Department for Business, Innovation and Skills 2015), the Nurse review of the research councils (Nurse 2015), and the government

university endowments and fundraising efforts.

¹⁹⁹ The Minister of Universities and Science at the time of the referendum, Jo Johnson, released a statement on higher education and research following the EU referendum (Johnson 2016a).

spending review (HM Treasury 2015). The main proposed changes included adjustments to various grants (to both students and institutions), the introduction of a Teaching Excellence Framework (TEF), and the reorganisation of the research councils under a single umbrella body provisionally called Research UK. The green paper also included an attempt to change the classification of institutions from public to private (Department for Business, Innovation and Skills 2015: 68). Until this point, the most recent act of parliament in this area was the Higher Education Act (2004);²⁰⁰ the changes made to higher education funding by the 2010–15 coalition government were achieved without new legislation. The government had intended to introduce a Higher Education bill in 2012 but this did not come to pass (Gill 2012). In order to implement the reforms outlined in the green paper and spending review, however, new legislation was necessary.

A follow-up white paper was released in May 2016 entitled *Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice* (Department for Business, Innovation and Skills 2016). This document confirmed the plan to introduce new higher education legislation; to begin a TEF; and to reduce barriers to entry for new universities, dissolve HEFCE and create a new regulatory body called the Office for Students (OfS). It also proposed the creation of an umbrella body for research called UK Research and Innovation (UKRI) which will incorporate all seven research councils, Innovate UK, and a new body called Research England which takes over the research functions previously performed by HEFCE (see also House of Commons Library 2016). All of these policy changes were included in the subsequent Higher Education and Research bill, which passed into law in April 2017 and became the Higher Education and Research Act 2017 (Higher Education and Research Act 2017; Morgan 2017).

Throughout all of these policy changes, the imprint of neoliberal ideology is visible. For instance, both the REF and TEF can be considered as neoliberal instruments. The REF, administered first by HEFCE and now by Research England (part of UKRI),²⁰¹ has been described by Richard Hall (2016) as part of the ‘anxiety machine’ that is the contemporary university,²⁰² and REF compliance as an instance

200 See Farrington (2015) for a more detailed view of recent higher education legislation in the UK.

201 For details of the forthcoming REF in 2021 see HEFCE (2017a).

202 It is now well documented that higher education workers are disproportionately affected by mental health issues, with the REF reported as one of the causes (Fazackerley 2018; Grove 2018).

of the ‘capitalist realism’ that has come to pervade public institutions (Fisher 2013). To a degree, it is inevitable that researchers are subject to certain regulatory requirements; since ‘universities are heavily reliant upon central government funding to conduct their research’, they are ‘also, therefore, subject to any regulatory measures that the government deems appropriate for the award of such funds’ (Eve 2017). However, with its focus on competitive rankings and individual performance, the REF creates a pressure to act in competitive and ‘entrepreneurial’ ways that pushes academics towards behaviours associated with neoliberal values.²⁰³ The fact that the TEF reproduces a similar dynamic to the REF, based on crude quantitative signifiers, signals a continuation of the neoliberalisation of the sector.

The first TEF results were released in June 2017 (see Office for Students [n.d.]), with institutions ranked as recipients of gold, silver, or bronze awards. The supposed aims of the exercise are to raise teaching standards by focusing the sector’s attention on teaching outcomes, and to differentiate fees between higher education providers – institutions now need to submit to the TEF in order to be allowed to raise fees in line with inflation, and ‘in the future, increases in fees may be tied to TEF outcomes’ (Ashwin 2017; see also House of Commons 2016), although it is unclear whether this will happen. The metrics used for the TEF received widespread criticism due to the fact that none of them actually measure teaching quality; they are proxies that measure certain outcomes, such as post-study employment rates, that are assumed to reflect high-quality teaching but the government has presented no evidence that they do so. As Ashwin says, ‘If the TEF is based on measures that are unrelated to the quality of teaching, then it will end up measuring institutional game-playing rather than excellent teaching. If this happens, then the TEF will not lead to improvements in the quality of teaching in universities’ (Ashwin 2017). Feldman and Sandoval (2018: 218) argue that the TEF policy ‘succinctly encapsulates the neoliberal capitalist project, where what is valuable is that which is measurable, cost-effective, income-generating and conducive to consumer choice’.

The creation of the OfS was supposedly in aid of ‘putting students at the heart

203 Although it could be argued that holding a research assessment exercise such as the REF is a necessary requirement in order for public money to still be spent on research, thus pushing back against the privatisation agenda advocated by neoliberals, this argument does not hold up when considering neoliberalism in the terms understood in this thesis. If neoliberalism is a political project to restructure all social relations into a competitive market-like form, then the REF is a textbook example of neoliberal political strategy.

of the system’ and re-orienting university attention towards improving teaching quality.²⁰⁴ Despite the lack of evidence that market reform will improve quality, and the aforementioned lack of any effective way to measure this, the government has been continuing to impose market logic ever more deeply upon the sector. This ideology is apparent in numerous parts of the new legislation, such as the encouragement of new private providers to enter the sector (see Department for Business, Innovation and Skills 2016: 21–22). One of the clearest ways in which marketisation has been occurring is in the turn towards the ‘student as consumer’ (Bunce, Baird, and Jones 2016; Naidoo 2008: 8–9). While this approach is not new, it now occupies a more central place in higher education policy, especially in England, where the OfS has a statutory duty to promote ‘value for money’ for student-consumers (Dandridge 2018).²⁰⁵ To treat students as consumers makes an assumption that it is actually possible for ‘consumers’ to have enough information about higher education options to make an informed choice, a notion that does not stand up to scrutiny. As Brown and Carasso (2013: 124) have argued, since no-one can experience a degree for the first time twice to make a first-hand comparison between providers, and the full benefits of a degree ‘may not be apparent ... for many years’, people rely on symbolic proxies for quality. Furthermore,

Research in consumer psychology has shown that consumer decisions are seldom the result of purely rational cost-benefit analysis based on a stable set of preferences. Instead, consumer decisions are highly complex and cannot be detached from the social and political contexts in which they take place. Individuals may select a product or service on the basis of non-rational consideration ... an ‘ideal type’ consumer acting in a perfect market characterised by full information does not exist.

(Jongbloed 2008: 24, quoted in Brown and Carasso 2013: 174)

204 OfS has been described as ‘a regulator of the English HE marketplace – designed to encourage the growth of a competitive market that informs student choice, to intervene when the market is failing in areas such as equal access, and protect the interest of its consumers (students, government, and wider society)’ (Boyd 2018).

205 Wright (2018) claims that the aims of the Office for Students is ‘to make institutions (and students) behave as rational actors. OfS, whether it likes it or not, is now the very visible hand of the market’, but ‘Students will never be given perfect information and their choices are complex, not merely based on a transactional relationship in which one can determine the full costs and benefits of the transaction’.

The consumer-driven view also makes an assumption about what higher education is for, i.e. a personal financial investment in one's own human capital (see Becker 1993; Friedman 2002 [1962]: 100–05) in order to increase employment opportunities and future earning power, rather than a public good: professional training, growing a more educated citizenry, etc. (*In Defence of Public Higher Education* 2011; Macmillan Cottom 2017: 10).²⁰⁶ Longitudinal Education Outcome (LEO) data, available for the first time in June 2017, is designed to give students information about likely graduate salaries for different subjects at different institutions (Bagshaw 2017), thus playing directly into the idea of treating students as consumers purchasing a product who can expect return on their investment. As Collini has put it, the question is whether universities 'are to be thought of as having a public cultural role partly sustained by public support, or whether we move further towards redefining them in terms of a purely economic calculation of value and a wholly individualistic conception of "consumer satisfaction"' (Collini 2010). In the UK government's eyes this debate has been settled. However, since markets 'tend to replicate and even intensify the existing distribution of economic power' (Ibid.),²⁰⁷ the government has chosen an approach to higher education that seems unlikely to decrease social inequality in the long run (see also Callender 2011; Hemsley-Brown 2011).

McGettigan (2013: 1–3) has argued that the austerity narrative was used by the coalition government as cover for introducing sweeping reforms to re-shape the higher education landscape to be more amenable to private investment. As McGettigan anticipated, the subsequent 2017 Act included clauses to enable 'new forms of privatisation, in particular, facilitating the entry of private equity into a sector that appears ripe for value extraction' (2013: viii). An explicit aim of the Act was to allow new higher education providers to be established and given degree-

206 It should also be recognised that related debates have long been present within emancipatory educational movements, with some advocates for working-class education arguing that it should be directed towards attaining the goals sought through class struggle. For instance, Woodin, referring to the co-operative movement in Britain, writes that 'the definition of co-operative education carried a dual conception of internal and external change' (Woodin 2017: 30), quoting Hall and Watkins saying that the aim was 'primarily the formation of co-operative character and opinion, and secondarily, though not necessarily of less import, the training of men and women to take part in industrial and social reforms and municipal life generally' (Hall and Watkins 1937: 168).

207 See also Piketty (2014).

awarding powers, and to allow ‘market exit’, i.e. for established providers to fail.²⁰⁸ Competition between providers is essential to the logic of this market-based system. There are already over seven hundred ‘alternative providers’ of higher education, many of whom, although not in receipt of direct government funding, do have access to government-backed loans to fund their students’ tuition fees (Fielden and Middlehurst 2017: 5–13).²⁰⁹ The volatility of this sector is demonstrated by the fact that ‘between 2012 and 2014, 114 alternative providers either closed or stopped offering higher education’ (Ibid., p. 11), which raises questions about the wisdom of allowing them to receive public money when there is such a high risk of closure. And if Macmillan Cottom (2017) is correct that for-profit providers thrive in a society with high levels of social inequality, then the UK government’s support for them appears to be encouraging inequality rather than trying to decrease it. A potential increase in inequality can also be seen in the current problems at the Open University, an institution that has previously provided a pathway for many people to enter higher education who would not otherwise have had the opportunity, and is now seeing significant cutbacks and course closures due to the government’s focus on full-time undergraduates rather than part-time and mature students (Courea 2018, Weale 2017).

This chapter has focused on the structure of the higher education sector, rather than the *content* of what gets taught or researched. However, these two strands are interlinked. Offering particular courses because of ‘consumer demand’ for them, rather than for reasons of intellectual significance, is a reaction by institutions to the increased marketisation of the sector. In addition, the current finance regime for higher education in England may, in the long term, narrow the choices for prospective students through creating a disincentive for institutions to run courses that do not lead to higher future earnings for graduates. The February 2018 government announcement of a higher education review implied that differential tuition fees may in the future be charged for different courses at different institutions

208 Perhaps raising the fees dramatically for ‘public’ institutions was necessary in order to set a high price that for-profit competitors can undercut (see Busch 2017: 49–51).

209 Definitions of alternative providers vary. In the intermediary regulatory framework in place before the Office for Students begins operations in April 2018, the government recognises several ‘tiers’ of providers, and a report from the National Audit Office (2017: 5) stated that in ‘September 2017, there were 112 alternative providers accessing student support funding’. After the government imposed student number controls in 2014/15, ‘the total support paid to students [at alternative providers] has declined, from £724 million in 2013/14 to £417 million in 2015/16’ (Ibid., p. 6).

– possibly based on cost of provision, quality, future graduate earnings, or a combination of these – with lower fees for humanities and social science subjects (Adams and Walker 2018; UK Government 2018). Any link between income for universities, whether through tuition fees or other means, and the type of course that a student studies, would have negative implications for those subjects which have been shown to have a lower graduate premium. This would have the strongest effect on arts subjects (McGettigan 2017). There have already been high-profile humanities course closures in recent years, such as at Middlesex University’s philosophy department despite its excellent Research Assessment Exercise score (Wolff 2010). The problem is particularly acute for modern languages, as ‘between 2007 and 2017 at least 10 modern language departments were closed at UK higher education institutions and at least nine more had significantly downsized their undergraduate provision’ (British Academy [2018]). Furthermore, course selection for prospective undergraduate students also depends on choices made in secondary education, so policy developments in that area will also impact the availability of courses in tertiary education.

Conclusion

Despite the best efforts of politicians, a free market in higher education still does not exist. However, Chapter 5 argued that to see the effects of neoliberal ideology in society, we should look not only for fully-formed instances of it in action, but should pay attention to on-going processes of neoliberalisation. Such processes are abundantly clear in the UK’s higher education sector – primarily in England, but throughout Scotland, Wales, and Northern Ireland as well. And despite the current political turmoil – at the time of writing, the Brexit negotiations led by an unstable Conservative minority government are still underway – this neoliberalisation is deeply embedded in the funding and governance of UK higher education. This is not to say that a rejection of neoliberal ideology is impossible in the near future. Indeed, in Chapter 8 some of the recent work on imagining alternative co-operative forms of higher education will be discussed. Rather, by identifying how thoroughly higher education has been neoliberalised, the implications for open access policy can be made visible. Therefore the next chapter will turn to the central concern of this thesis, and analyse the extent to which the current state of scholarly publishing – and

open access in particular – is a symptom of the neoliberal university.

Chapter 7. Open Access Policy in the UK

This chapter examines the state of open access policy in the UK and explores the political context behind it. Following the work in Chapters 5 and 6 that described what neoliberalism is and how it came to influence higher education so profoundly, it can be seen that open access is now entangled in the institutions, procedures, and policies of the neoliberal academy.

The main focus of this chapter is on the policies of the UK government and its agencies during the years of the Conservative-led coalition government (2010–15). This time period has been chosen for several reasons. Firstly, a governmental term is a useful unit of analysis for policy. Secondly, it broadly corresponds with David Willetts' term as Minister for Science and Universities, whose interventions can be seen as a pivotal moment for the UK's open access policy – most of the specific policies analysed herein were implemented as a result of these interventions. Furthermore, despite the significant changes to UK higher education policy since 2015 (see Chapter 6), open access policy has remained largely unchanged.²¹⁰ The open access policies of other nations – especially within the EU – are also considered to provide context, although for reasons of space this discussion will be limited.

The chapter is divided into four sections. First, a short pre-history of open access policy, covering the period prior to 2010, provides some background context. This is followed by a discussion of the change in policy of the government and its research agencies during 2010–15, and considers some reasons for this change. The third section looks at the details of the RCUK and HEFCE open access policies and their implementation, and analyses the effect they have had on publication practices at a systemic level. Finally, the question of neoliberalism will be addressed: to what extent can the UK's open access policy be considered neoliberal? By drawing on the account in Chapters 5 and 6 of neoliberalism and its role in contemporary higher education, the links between neoliberalism and the government's version of openness are made clear, but the case is made for rejecting an over-simplified view which dismisses the very real benefits that have occurred.

²¹⁰ At the time of writing, UKRI is in the middle of a review of its open access policy, which is due to report in early 2019 (UK Research and Innovation 2018: 18).

Open access policy in the UK, 2003–10

The development of open access was not the first time that the UK government has shown an interest in academic publishing. As Chapter 2 mentioned, the growth of academic publishing in the post-war period was linked to the political agendas of various governments. Government intervention was sometimes quite direct, such as when the UK government gave grants to the Royal Society to fund its publications in the early twentieth century (Fyfe 2015: 291). However, current open access policy can be seen as beginning much more recently. As discussed in Chapters 1 and 4, open access emerged during the early days of the web and was formally recognised as a coherent movement with the Budapest Open Access Initiative (BOAI) in 2002. During the first decade of the twenty-first century, open access policies and mandates began to be introduced by individual research institutions, state research funders, and medical charities such as the Wellcome Trust,²¹¹ with a steady growth in the number of these policies from 2003 onwards (Weller 2014: 49–51).²¹² As Prosser (2007) has noted, it was the Berlin declaration in 2003, rather than the BOAI, that marked the first time that research funders explicitly acknowledged that open access was in their interests. There was little coordination between the various policies that emerged around this time, however, and many of them were not strongly enforced, with a 40% compliance rate considered successful (Armbruster 2011: 315).

Tickell reports that ‘The UK began the transition to OA early, when Parliament recommended a shift to OA publishing in 2004’ (Tickell 2016: 8). Parliament’s recommendations – in the form of a report by the House of Commons Select Committee on Science and Technology²¹³ – were strongly in favour of supporting green open access by creating institutional repositories and mandating that publicly-funded research is deposited in them, as well as suggesting that ‘the Research Councils each establish a fund to which their funded researchers can apply should they wish to pay to publish’ (House of Commons 2004: 3).²¹⁴ Since open access

211 The Wellcome Trust was among the earliest research funders to show a strong interest in changes within journal publishing (see Wellcome Trust 2003).

212 The Registry of Open Access Repository Mandates and Policies (ROARMAP) service has been tracking the growth of open access policies and mandates since 2003 (Moskovkin 2008), and the SHERPA Juliet service has been monitoring research funders’ open access policies since 2006 (SHERPA 2006).

213 Select committees are part of the constitutional governance structure of the British Parliament. They are cross-party committees of MPs that have responsibility to scrutinise particular areas of government policy.

214 The report also recommended the monitoring of the journal publishing industry by the market

publishing models were in their infancy in 2004 – BioMed Central²¹⁵ started charging APCs in 2002, PLOS launched its first journal *PLoS Biology* in 2003, and the first hybrid APC option from a major publisher was launched by Springer in 2004 (Björk 2017; Quint 2002; Willinsky 2006: 1) – it is not surprising that the emphasis of the committee report was on green open access:

We have recommended that the UK Government fund the establishment of an inter-linked network of institutional repositories on which all research articles originating in the UK should be deposited and can be read for free. [...] In order to ensure that the repositories are well-populated, we have recommended that Research Councils mandate their funded researchers to deposit copies of all their articles in this way. [...] We have seen much to praise in the author-pays publishing model and the principles on which it has been established. Nonetheless, the UK still has insufficient understanding of the impact that this model would have, particularly on learned societies and in respect of the free rider problem, for us to recommend its wholesale adoption. Instead we have recommended a period of further experimentation.

(House of Commons 2004: 97)

Shortly afterwards, ‘The Wellcome Trust (the second largest charitable funder of scientific research in the world) began mandating that all its funded research should be made OA from April 2005’ (Tickell 2016: 8). Following the Select Committee inquiry, ‘Research Councils UK (RCUK) initiated a policy review to investigate what action the UK Research Councils could take to promote greater dissemination of the research they fund [...] RCUK recommended a series of policy changes to the individual councils and during 2006 five of the seven Research Councils announced mandates requiring that a copy of all papers resulting from grants awarded from 1

regulator, the Office of Fair Trading: ‘We recommend that the Government Response to this Report provides information on the measures being taken by the Office of Fair Trading to monitor the market for STM journals. We urge the Office of Fair Trading to commit to biennial public reporting on the state of the market, including how STM publication prices are developing; how prices change following mergers and acquisitions in the sector and the impact of bundling deals upon competition’ (House of Commons 2004: 48). Unfortunately, such close scrutiny of the sector through ‘biennial public reporting’ did not occur.

215 The founder of BioMed Central, Vitek Tracz, claims that at its launch in 1998 it was the first open access publisher (Poynder 2005).

October 2006 be deposited in freely accessible electronic repositories' (Prosser 2007). In addition, some councils allowed APC costs to be included in grant applications (Finch Group 2012: 56). So support for a mix of green and gold open access was a feature of the policies being developed around this time, although the emphasis was on green.

During this period, multiple stakeholders with an interest in academic publishing had been advocating for open access and engaging in UK policy debates. These included some passionate academics, who early on saw the potential that open access offered them; librarians, who wanted a way to make knowledge more widely available while moving beyond expensive and restrictive license agreements, and advocacy groups such as SPARC that represented librarians' interests; funders, such as the Wellcome Trust, who believed that their work could be achieved more quickly and efficiently through open access; and publishers, including BioMed Central, PLOS, and smaller university-based or academic-led presses. Later in this thesis, some of the tensions between these different stakeholders will be shown to shape the kind of policy that is developed, especially regarding what a future commons-based open access policy might look like.

The UK was not alone in seeing the introduction and growth of open access policies during this period. Research funders elsewhere in the world were also introducing policies around the same time, such as the US National Institutes of Health (NIH) policy in 2005 (Willinsky 2006: 3),²¹⁶ and many European research funders launched policies as well, mostly between 2006 and 2010 (Science Europe 2016: 10). Furthermore, open access has been particularly strong in parts of the world away from the highly-funded institutions of Europe and North America – indeed, Latin America has consistently been the region with the most advanced open access policy environment and perhaps the greatest proportion of scholarly literature available open access (Alperin 2014). It also sees significant support for open access monographs at university presses (Toledo and Córdoba-Restrepo 2018: 66–68). This

216 Progress on open policies in the US is highly dependent on the ideologies of whichever administration is in power at the time; in 2013 Obama signed an executive order 'Making Open and Machine Readable the New Default for Government Information' (Obama 2013), whereas the Trump administration is working against openness and transparency in government (Joseph 2017). Political struggles around ownership and control are at play here; Bollier (2004: 3) argues that the NIH mandate 'is about universities trying to reclaim greater control over what they already produce and own. It's also about government, acting on behalf of taxpayers, trying to reclaim ownership of research that it has already paid for'.

broader global context shows that the UK was behaving consistently with other nations by supporting open access. The next section demonstrates the changes in this support from the government following 2010, most notably the decision to prioritise gold open access to a greater degree.

Open access policy in the UK, 2010–15

By 2010, the Labour party had been in power for 13 years. Following the general election in May 2010, a coalition between the Conservative party and the Liberal Democrat party formed a government that lasted until the next election in 2015, and since then the Conservatives have governed alone. Government policy in many areas changed significantly from 2010 onwards and higher education was no exception (see Chapter 6). As discussed above, a broad coalition of stakeholders had been advocating for open access for a number of years by this point, so the policy decisions of the coalition government took place within an established policy environment with numerous actors. But despite this continuity, it can be argued that open access policy in the UK reached a turning point when David Willetts, the Minister for Science and Universities from 2010–14, significantly raised the profile of open access on the policy agenda.

In 2011, Willetts commissioned a working group led by Janet Finch, a sociologist and former university Vice-Chancellor, to look into the possibility of transitioning the UK's academic publication output towards open access.²¹⁷ The group was tasked 'with recommending how to develop a model, which would be both effective and sustainable over time, for expanding access to the published findings of research' (Finch Group 2012: 2). The resulting report, commonly known as the Finch report (Finch Group 2012), made various policy recommendations designed to encourage greater uptake of APC-funded gold open access. The report envisioned a 'mixed economy' of APC-funded gold open access, subscription journals allowing green open access deposit of articles, and extended licensing, with 'Gold OA primarily funded by APCs' seen as 'ultimately delivering most successfully against our criteria' (Finch Group 2013: 2). Means of funding gold open

²¹⁷ It is worth bearing in mind that a government-commissioned report, including an 'independent' one such as this, is not necessarily actually written by the person whose name is most prominently associated with it. In this case, the consultant Michael Jubb was the primary author (see Finch Group 2012: 2).

access other than APCs, as discussed at length in Chapter 8, were dismissed as inconsequential (2012: 62). This is despite the fact that among gold open access journals listed in the Directory of Open Access Journals, ‘68% [...] do not charge APCs or other fees—and those free-to-submit journals published 43.0% of the articles in 2016’ (Crawford 2017: 1). The Finch report set the policy direction with regards to open access for research organisations that receive funding from the state. For instance, RCUK acted on the report’s recommendations by introducing an open access policy requiring all research articles²¹⁸ that they fund to be made open access, preferably through the gold route, and by releasing funds to enable this to happen (RCUK 2013a). HEFCE also announced that it would introduce an open access policy, although this took longer to be developed. The rest of this chapter will analyse the aftermath of the Finch report with a focus on the RCUK and HEFCE policies and their implementation.²¹⁹

There are multiple aspects to consider when trying to understand the reasons behind policy decisions, from the political vision of policymakers, to the operational constraints of existing organisations working within the area, and the ebb and flow of trends among academics, journalists, and commentators. The reasons given by BIS²²⁰ for commissioning the Finch Report were as follows:

The Government, in line with our overarching commitment to transparency and open data, is committed to ensuring that publicly-funded research should be accessible free of charge. Free and open access to taxpayer-funded research offers significant social and economic benefits by spreading knowledge, raising the prestige of UK research and encouraging technology transfer. At the moment, such research is often difficult to find and expensive to access. This can defeat the original purpose of taxpayer-funded academic research and limits understanding and innovation.

(Department for Business, Innovation and Skills 2011: 76)

218 RCUK took a phased approach rather than expecting 100% compliance immediately, as discussed below.

219 As discussed in Chapter 6, the research councils and the research arm of HEFCE have now been folded into a single organisation called UKRI, but for now the two policies remain distinct. At the time of writing, a policy review has been announced that may see some convergence (see note 206).

220 The Department for Business, Innovation and Skills (BIS) was the department responsible for universities and research at that time. Responsibility is now split between the Department for Education and the Department for Business, Energy, and Industrial Strategy.

This line of reasoning is fairly typical of the pragmatic arguments used by some supporters of open access (see Chapter 1). As such, it may reflect the influence of the prior work done by these supporters. The Finch report also went on to explicitly list pragmatic reasons in favour of open access, such as improved efficiency and increased return on investment, while ignoring any ethical arguments (Finch Group 2012: 5). However, another narrative that is used to describe the reasoning behind the policy decision is the personal view and experience of David Willetts. Willetts outlined how during the writing of his 2010 book *The Pinch* he had difficulty in accessing some of the research that he needed (Willetts 2013; see also Prosser 2014). This situation led him to an awareness of general access issues around research articles and a conviction that open access would allow more efficient knowledge transfer. This narrative therefore follows a simple progression from Willetts' experience and subsequent decision to do something about it, to the Finch Report, to the introduction and implementation of the Finch Group's recommendations by the UK's research funders.²²¹

Another factor that should be considered is the possible influence of lobbying from commercial academic publishers. Public policy is shaped by various interest groups: political parties, private sector interests, government advisors, civil society organisations, think tanks, media pressure, and so on. The formal process of making law is not the only way in which these interest groups try to influence policy, which is why some argue that the legislative process should be 'taken to include pre-parliamentary consultation and lobbying as well as formal debate' (Pemberton 1977:

221 The extent to which bodies such as HEFCE and RCUK need to closely follow government policy is not always clear. According to a later Minister of State for Universities and Science (2015–17), Jo Johnson, 'Research Council policies are not determined by Government' (Johnson 2016), and 'HEFCE and RCUK are non-departmental government bodies with independence from government to determine their publication policies' (personal communication). However, it was very clear that they were expected to change their policies in direct response to the Finch report. The funding councils receive a letter each year from the Secretary of State with directions that dictate the terms of their funding (Naidoo 2008: 5). One of the reasons for the re-organisation of the sector's governance under the Higher Education and Research Act may have been to make these organisations more directly accountable to, and under the control of, central government (see Boyd 2018). Although Melville (2018) has noted that 'As time has progressed during the HEFCE era, it must be said that successive governments have forgotten the value of a buffer body and taken an ever closer interest in the minutiae of HE, using powers to interfere at the micro level', the OfS is still under more direct government control than HEFCE was. The OfS reports directly to the Secretary of State, who 'has the power to give directions, demand advice and require reports from the regulator' (Boyd 2018).

5). Government ministers rely on advice from policy experts based in various governmental and non-governmental organisations; both state bureaucracies and also wider policy networks feed in to the policy-making process. For example, with regards to higher education policy, there is expertise within the government department itself; within arms-length sector bodies such as HEFCE/OfS,²²² RCUK/UKRI, or the higher education technology organisation Jisc;²²³ universities and their mission groups such as the Russell Group or Universities UK (UUK); academic expertise within relevant university departments; and private sector organisations who sell products and services to the sector. Although there are ways within the formal legislative process for all of these organisations to make an input, such opportunities are rare, and policy influence is more frequently sought through the murky practices of lobbying. Lobbying is notoriously difficult to monitor accurately, but the scale of publisher lobbying in the US alone can be hinted at by the \$1.4m of publicly acknowledged expenditure by Elsevier in 2017 (Open Secrets [n.d.]).

As revealed by a Freedom of Information request, BIS officials and the Minister for Universities and Science regularly meet with the Publishers Association and individual publishing corporations such as Elsevier and Wiley (WhatDoTheyKnow 2015). The content of these meetings is unknown because no record has been kept.²²⁴ These publishers have largely been resistant to open access due to their continued large annual profits from the subscription journal business, so it is unlikely that they would be trying to influence the government to promote open access *per se*. However, the government's strong preference for gold open access rather than green self-archiving is aligned with a competitive market logic that is consistent with commercial publishers' goals. Thus, this is where we find the nexus of open access business models, corporate publisher interests, and the neoliberal agenda of the Coalition government. In addition to lobbying, commercial publishers were given a formal seat at the table for influencing policy through being members

222 See previous note.

223 Originally part of HEFCE, following the Wilson review in 2010 Jisc became a separate not-for-profit company limited by guarantee (HEFCE 2010). Please see the Acknowledgements for a note on Jisc's role in the funding of this thesis.

224 Freedom of Information requests can only reveal information that exists, so naturally if a government wishes for information not to be revealed, it is convenient for there to be no record of its existence. In recognition of this, the Campaign for Freedom of Information in Scotland has launched a campaign to require that minutes, notes, and agendas must be taken of all Scottish Government meetings (CFOI 2018).

of the Finch group (see Finch Group 2012: 112–14). Therefore rather than the report offering an impartial analysis (to the extent that such a thing is possible) of the best course of action, it appears that certain interests managed to take precedence. There was an explicit aim to ‘balance the interests’ of different stakeholders, including the commercial interests of publishers (Tickell 2016: 9). Financial sustainability for existing publishers was explicitly included as a criteria for success in the Finch report, including their ability to generate profits for shareholders (Finch Group 2012: 61). The imprint of neoliberal ideology can be seen here; the costs and benefits of particular open access policies are considered purely in market terms. The false equation of gold open access with the APC business model – which was subsequently carried over into evaluations of the policy such as Tickell (2016: 9) – can be seen as an expedient move by commercial publishers to secure their revenue streams in a changing policy environment.

The open access policy of the coalition era ties in to other aspects of the government’s aims and legislative direction. This is especially true of its broader openness and transparency agenda (see Department for Business, Innovation and Skills 2011: 76–77), which, as Birchall illustrates, can be seen as embodying a neoliberal approach to government by facilitating both ‘the flow of free market capital’ and ‘the reduction of the citizen to a data subject within a dataset’, which ‘makes him or her subject to rationalization techniques inherent to “audit culture”’ (Birchall 2014: 83). The coalition’s promotion of open access was not an isolated case of promoting openness in relation to government-produced or funded resources – there were also moves towards open data, and using open source software in government (Gray 2014). This apparent increase in transparency occurred alongside continued high levels of secrecy in some other areas – for instance, regarding the Brexit negotiations, or possibly illegal military activities, or complicity in secretive tax havens (BBC 2017; Crider 2016; Global Witness 2017) – and an unsuccessful attempt to restrict use of Freedom of Information law (Quinn 2016; Syal 2015). Therefore it could be argued that openness and transparency were only pursued by the government when it suited their agenda.

Another sense in which the government’s open access policy is linked directly to its agenda in other areas of higher education is that the prioritising of gold over green open access was in line with the government’s market creation policies for higher education, in which rhetoric about choice and freedom underlies an economic

focus on student fees and market competition, as described in Chapter 5. The marketisation of open access is analysed further in the final section of this chapter.

It is worth considering the extent to which Willetts-era open access policy was in fact a continuation and incremental extension of prior policy, rather than being a radical departure. As with all policy, decisions occurred within the broader context of the existing policy environment. In this case, by 2010 the institutions of BIS, HEFCE, RCUK, and individual higher education institutions were all already involved to some degree in supporting open access. ‘Path dependence’ is the term used in public policy analysis to refer to the way that the possibilities for future action often appear to be restricted by the way things have been done in the past (Greener 2005; Pierson 2000). As Cairney describes it, ‘when a commitment to a policy has been established and resources devoted to it, over time it becomes increasingly costly to choose a different path’ (Cairney 2012: 107). This applies not just to the operational constraints of institutions, but also ‘the very ideas on which they are predicated and which inform their design and development, that exert constraints on political autonomy’ (Hay 2006: 65). Path dependence of ideas is a useful way of viewing the neoliberalisation of public policy; if neoliberal ideology saturates the worldview of everyone involved in policymaking, then it acts as a structural constraint defining the boundaries of acceptable policies – anything outside of this ideology faces considerable barriers to even being considered as viable policy. To use the understanding of neoliberalism reached in Chapter 5, this means that the logic of capital becomes the single logic to which all policy must conform. This insight – alongside the existence of publisher lobbying – could go some way to explaining what is perhaps the only major policy change that was instigated by the Finch report, which was the decision to promote APC-driven gold open access. If open access is framed only as an economic problem to which a market solution must be found, such a policy makes perfect sense.

If it is correct to say that the single most significant policy change in the period under discussion was the promotion of APC-driven gold open access, then the ‘critical juncture’ can be identified, i.e. the point that ‘marked the beginning of a particular path and reduced the feasibility of alternative policy choices’ (Cairney 2012: 107; see also Pierson 2000). This point could be either the decision by Willetts to launch the Finch Group, or the decision of that group to support APC-driven gold open access. Perhaps it is not even necessary to distinguish between these two

things; it is unlikely that Willetts would have started the Group, and the membership of the group would not have been approved, if it was not already clear which direction they would go.

Policy implementation and its effects

Successful policy relies on effective implementation, and this tends to occur much further down the food chain than the corridors of Whitehall. This section is about the implementation of the post-Finch open access agenda, with a particular focus on the RCUK and HEFCE policies. A great deal of the implementation work in this area falls to the support staff of individual higher education institutions. The Finch report had recommended that:

a clear policy direction should be set towards support for publication in open access or hybrid journals, funded by APCs, as the main vehicle for the publication of research, especially when it is publicly funded; the Research Councils and other public sector bodies funding research in the UK should – following the Wellcome Trust’s initiative in this area but recognizing the specific natures of different funding streams – establish more effective and flexible arrangements to meet the costs of publishing in open access and hybrid journals

(Finch Group 2012: 7, see also 91–92, 97)

RCUK interpreted this recommendation by introducing a policy with a preference for gold open access, and has provided block grants to research institutions in receipt of RCUK funds in order for them to pay APCs for RCUK-funded research outputs (RCUK 2013a: 1–3). The policy initially began in 2013/14 with grants guaranteed for five years.²²⁵ Full compliance with the policy was not expected immediately; the intention was that institutions would become progressively more compliant each year until year five of the policy (2017/18) by which time all RCUK-funded articles

²²⁵ The policy took effect in April 2013 and then transitioned mapping onto the academic financial year, so the first ‘year’ of the policy was a long one from April 2013 until July 2014. In 2017, RCUK announced that APC funds will be extended to 2020 (see RCUK 2017a), although it is likely that the precise amounts will continue to only be revealed at the start of each year of the policy.

must be open access, including at least 75% being made available through immediate gold open access (RCUK 2013, 2013a). Funding started at £16.9m in 2013/14, rising to £19.8m in 2014/15 and £22.6m in 2015/16 (RCUK 2017: 2, 2014, 2015).²²⁶ For the fourth and fifth years of the exercise the amounts allocated were altered to take into account institutions' level of expenditure in previous years, leading the total to fall to £14m in 2016/17 (RCUK 2016) and rise again to £20.4m in 2017/18 (Lawson 2018a).

Implementation of RCUK's open access policy is largely devolved to individual research institutions,²²⁷ with block grants of varying amounts being given to over 100 research institutions each year to manage the costs of implementation themselves. Therefore much of the work of managing these funds has fallen to either research support staff in the library, or research administrators within these institutions, with support from external bodies such as Jisc. There was a degree of freedom in choosing how to spend the funds, with the policy stating that the grant 'is intended principally to support the payment of APCs. However, Research Organisations may use the block grant in the manner they consider will best deliver the RCUK Policy on Open Access, as long as the primary purpose to support the payment of APCs is fulfilled' (RCUK 2013a: 5). The amounts received by each institution are proportional to the level of research grants that RCUK awards that institution. Each year, institutions must report back to RCUK on the level of expenditure from these block grants in order to monitor compliance with the open access policy. Jisc's role in the sector includes supporting academic library staff, so it has worked with RCUK to create a template for institutions to report their block grant APC expenditure in a standardised way (Jisc Collections 2015).

One intended effect of the policies recommended in the Finch report was to increase market competition (Finch Group 2012: 11, 102; Johnson 2016). In traditional market terms, this would require price sensitivity among purchasers, which is not the case here. With regards to journal subscription rates, it has been

226 RCUK have not produced a document listing these allocations for multiple years in a machine-readable format, so I have done so at Lawson (2018a). The sources cited here include a full breakdown of payments to each individual institution. From 2017/18 onwards, the block grant payments are made every six months rather than annually.

227 The term 'research institutions' is used here rather than 'higher education institutions' because although the organisations that receive RCUK funds are mostly universities, they do also include some other research organisations such as the British Antarctic Survey and Royal Botanic Gardens Kew.

recognised that since the people who make the decision about where to publish – the authors – are shielded from the price of journals because they are paid for by the library, they have no reason to choose cheaper journals (Wellcome Trust 2004: 18). And with APC prices, since the money is provided by a research funder and administered by institutional support staff, this distance remains intact. Publishers themselves have noted that the APC price makes little difference to authors (Wakeling et al. 2017). In general, APC rates are not set according to how much it costs to produce and publish an article but rather by what the market will bear (Ibid.). The explicit support in the Finch report for hybrid journals, combined with the lack of market price sensitivity and the continuing desire of authors to publish in the most prestigious venues, has inevitably led to patterns of APC expenditure that – far from instigating market competition – have seen increased market concentration and ever-increasing prices.

Hybrid journals, as discussed in Chapter 1, are subscription journals that have an open access option available to authors who are willing and able to pay an APC. This business model is not new:

The first documented hybrid journals were published by the Entomological Society of America in the late 1990s (Walker, 1998). The APCs were low by today's standards, a couple of hundred dollars. David Prosser wrote an interesting analysis in 2003, where he outlined hybrid journals as a risk free transition path towards full OA (Prosser, 2003). Then, in a bold move in 2004, Springer announced the hybrid option “Open Choice” for their full portfolio of over 1,000 subscription journals (Springer, 2004).

(Björk 2017)

Hybrid open access slowly became more common over the next decade (see Laakso and Björk 2016), and the number of subscription journals that offer a hybrid option appears to have increased dramatically in the years immediately after the Finch report, with the vast majority of subscription journals from major publishers now hybrid.²²⁸ Hybrid APCs tend to be more expensive than APCs in full gold open access journals (Jubb et al. 2017: 15, 39; Pinfield, Salter, and Bath 2015; Pinfield,

²²⁸ For example, as of early 2018, around 1,900 of Elsevier's approximately 2,500 journals offered a hybrid option (RELX Group 2018: 17).

Salter, and Bath 2017: 2255; RCUK 2017: 4), so it is not surprising that hybrid articles are still a very small percentage of the global total number of articles.²²⁹ The increase in hybrid APCs paid from RCUK funds (see RCUK 2017) means that uptake of hybrid is higher in the UK than elsewhere (Jubb et al. 2015: 30), so the UK makes up a disproportionately large amount of the world's hybrid output. Both RCUK funds (RCUK 2017: 4; Pinfield, Salter, and Bath 2017: 2255; Shamash 2017a) and Wellcome Trust funds (Wellcome Trust 2016a) have seen 75–80% of the money spent on hybrid journals. This expenditure on hybrid APCs tends to be with a few of the largest publishers (Jubb et al. 2017: 42–43; Shamash 2017a), thus increasing market concentration even further. In order to contain costs, some funders in Europe have open access policies that either exclude hybrid journals – including the European Union FP7 post-grant open access pilot (De Castro 2015: 237, 239), the Norwegian Research Council (Frantsvåg 2015), and the Netherlands Organization for Scientific Research (2018) – or have set a cap on the level of APC that they will fund, such as Austria's research funder FWF that set a cap of €2,500 for gold open access journals and €1,500 for hybrid journals (FWF [n.d.]; Science Europe 2016: 17; Tonta et al. 2015: 1). The EU has also announced that it intends to stop supporting APCs in hybrid journals after 2020 (Nicholson 2018). The Wellcome Trust (2016) has considered withdrawing support for hybrid journals though for them the reason would be a result of poor service from publishers rather than about containing costs (see also Pells 2018). At present, no major UK research funder has taken action to limit expenditure on hybrid journals. This is one of the reasons why Sartori and Kingsley (2017), of the Office of Scholarly Communication at the University of Cambridge, have been scathing about the effects of the RCUK policy and its failure to incentivize subscription journals to flip to full open access. As discussed in the next chapter, high APC charges – driven by European funder policies – are creating a new hierarchy of unequal access to participation in publishing (see Siler et al. 2018).

Another explicit result of the RCUK open access policy was the introduction of offset agreements. In this context, 'offsetting' is used to refer to the process of offsetting the costs of journal subscriptions and APCs against each other (Lawson 2015a). If this does not happen, publishers have been accused of 'double dipping' by

229 Probably around 2% of the total – Björk (2017) reports 44,000 hybrid articles in 2016, out of an estimated global total of around 2.5 million articles (Ware and Mabe 2015: 27).

taking payment to make an article open access while still charging a full subscription price for the journal as a whole (RLUK 2015). The Finch report recognised the risk that under a new open access policy, the higher education sector may ‘be unable to reduce its expenditure on subscriptions at the same rate as it increased its expenditure on APCs’ (Finch Group 2012: 75; see also Finch Group 2013: 4). Willetts expected deals to be made with publishers on this issue (Jisc Collections 2014; Willetts 2014: 1–3). The fact that the UK has a central negotiating body to manage journal licenses – Jisc Collections, which is also part of Jisc – means that this organisation can leverage its position to help financially support the transition towards open access publishing. Jisc Collections’ subsequent work to incorporate offset schemes into its negotiations with publishers around purchasing access to journal content (see Earney 2017, 2018) can be viewed as the implementation of this policy. In the broadest sense, these agreements simply incorporate subscriptions and an open access component within the same deal, hence the term ‘Read and Publish’ agreement is sometimes used to describe them (Earney 2018).

Offset agreements have been made with a number of publishers, and as of 2018 deals are currently in place with Wiley, Springer, Taylor & Francis, Sage, Institute of Physics Publishing, and De Gruyter (Lawson 2018b). These are usually multi-year agreements with long negotiation procedures involving numerous clauses and changes to consider. Therefore there was no way for offset agreements to be in place and making a difference to institutions’ expenditure until well into the period of receiving RCUK open access block grants. An effect of the way policymaking occurs is that the infrastructure – whether technical or human – required to implement policy frequently takes a long time to be built. For instance, Jisc has created a service to manage APC payments called Monitor (Jisc [n.d.]), which was not able to launch until the fifth year of the RCUK policy. Delays such as this are unfortunate because the ‘the implementation of OA policies relies on the development of a fully-functioning OA infrastructure’ (Johnson and Fosci 2016: 5). It is not yet clear whether offset agreements will continue to be used for the long term. Offsetting has been shown to be an effective way of increasing the number of open access articles but at the cost of entrenching big deals and the hybrid system (Lawson 2016, 2017a, 2018b). The practice offers savings compared to the amount that would be paid if no offset agreements were in place, but has not sufficiently contained the total cost of publication, as both subscription expenditure and APC

expenditure have continued to rise (see also Jubb et al. 2017: 8, 40–41). With only partial rather than full offsetting, and no restrictions on using APC funds for hybrid journals, this result is not surprising.

Offset agreements have been taken up elsewhere in Europe as well, such as the Netherlands (see Eve, De Vries, and Rooryck 2017: 121–22; Šimukovič 2016; Waaijers 2017), and the Springer Compact agreement has been enacted in the Netherlands, Austria, Sweden, and the Max Planck Institutes in Germany (Springer 2018). There has recently been a lot of publicity about large-scale cancellations of big deals by various national consortia, such as Germany and Sweden refusing to renew deals with Elsevier, and France with Springer (Havergal 2018; Matthews 2018; Mittermaier 2017). However, these ‘cancellations’ are much more likely to be temporary pauses while new deals are re-negotiated – the goal of Germany, Sweden, and France is to negotiate a new deal that includes an open access component without significantly raising costs, i.e. an offsetting deal (see Lundén, Smith, and Wideberg 2018). In addition, there is anecdotal evidence that more and more higher education institutions around the world continue to sign up to big deals. No evidence has yet come to light indicating that cancellations outweigh new customers, or that publishers’ profits are being hit to an extent that would force them to alter their practices. For instance, Elsevier’s latest annual report shows continued strong revenue growth, as it has done every year for some time (RELX Group 2018: 2–17). Furthermore, Wiley’s (2017: 7) most recent financial statement explicitly states that offset agreements help to secure revenues:

A number of European administrations are showing interest in a business model which combines the purchasing of subscription content with the purchase of open access publishing for authors in their country. This development removes an element of risk by fixing revenues from that market, provided that the terms, price, and rate of transition negotiated are acceptable.

This support for offsetting from publishers such as Springer and Wiley, and the aforementioned fact that expenditure on APCs from RCUK funds tends to be concentrated with a few of the largest publishers, is sufficient evidence that current open access policy is not altering the power imbalance between different interests.

The Finch report recommended that ‘the Research Councils and other public sector bodies funding research in the UK should [...] establish more effective and flexible arrangements to meet the costs of publishing in open access and hybrid journals’ (Finch Group 2012: 7), but did not engage with criticisms of publisher profits that argue that the ‘costs of publishing’ would be significantly reduced if commercial publishers were not extracting 35–40% profit margins (see Gowers 2012; Lawson, Gray, and Mauri 2016). It appears that publisher lobbying has effectively neutralised opposition to this behaviour, to the extent that official policy simply does not recognise it as a problem worthy of attention. As such, those advocates who wish to centre equity and social justice within open access should continue to explore alternatives, such as the commons-based policy explored in the next chapter.

In contrast to the relatively quick policy implementation by RCUK with its strong preference for gold open access, HEFCE took longer to finalise its policy and settled on a green self-archiving policy. The differing roles of these two bodies help to determine their policy positions. The research councils fund individual projects by awarding grants to researchers so it is relatively simple for them to attach new individual demands to grant recipients. HEFCE, on the other hand, primarily distributed research funding according to QR funding allocation determined by results in the Research Excellence Framework (see Chapter 6). HEFCE introduced its open access policy in March 2014.²³⁰ The policy requires that in order ‘to be eligible for submission to the next Research Excellence Framework (REF)’, now expected to occur in 2021, all ‘journal articles and conference proceedings accepted for publication after 1 April 2016’ – with a few exceptions – are required to be made open access (HEFCE 2015: 1; 2016a: 1). The mechanism chosen to achieve this was green open access, i.e. deposit in an institutional or subject repository. Publisher embargoes were accommodated. Institutions were expected to be compliant with the policy by April 2016 (HEFCE 2015). As Elizabeth Jones (2016: 16) notes, the requirement for deposit within three months of ‘date of acceptance’ was controversial. The policy was updated several times, in July 2015 (HEFCE 2015) and November 2016 (HEFCE 2016a), in response to sector concerns. The main

²³⁰ As mentioned above, each of the four nations of UK has a separate funding council, so the ‘HEFCE open access policy’ actually applies to all four UK funding bodies (HEFCE, HEFCW, SFC, and DfE). It would be more accurate to refer to the policy as the ‘REF open access policy’ because it is tied so closely to the REF. The REF was administered by HEFCE (and now by Research England), hence the conflation.

change was regarding date of acceptance: ‘To take account of the need for systems to be developed to support deposit-on-acceptance, during the first two years of the policy (1 April 2016–1 April 2018), outputs can be deposited up to three months after the date of *publication*’ (HEFCE 2016a: 5, emphasis mine). It was later confirmed that ‘this exception will remain in place for the rest of the REF 2021 publication period’ (UK Research and Innovation 2017: 8), essentially altering the policy for the entire period.

The HEFCE open access policy for REF 2021 only applies to journal articles and conference proceedings, not monographs. Including open access for books within government policy continues to be deferred to a later date, in part because it would be so expensive (Jubb 2017: 181–83; Tanner 2017),²³¹ though HEFCE have indicated that open access for books may be required for the next REF after 2021 (HEFCE 2016: 36–38). Tanner (2017) has argued that ‘the current costs of Book Processing Charges (BPC) would not be feasible or sustainable in any future REF that required or mandated Open Access for all monograph submissions’, as HEFCE itself has recognised (HEFCE 2016: 37). It therefore appears that a different open access model will be required if a monograph mandate is ever going to be possible.

As with the RCUK policy, implementation of HEFCE’s open access policy is largely devolved to individual higher education institutions, especially as the policy is so closely tied to institutions’ REF submissions. Much of the labour that is required to support these open access policies at an institutional level is in order to demonstrate compliance. Indeed, monitoring and compliance have come to perform a central role in institutions’ engagement with open access (Johnson and Fosci 2016: 10–11; HEFCE 2017c). This is particularly true with regards to the HEFCE policy. The importance that institutions place on the REF strongly incentivises compliance; by making submission to the REF conditional upon depositing research in a repository, the policy explicitly links research assessment with open access. This link is one of the concerns some open access advocates have with the neoliberal direction of current policy, as discussed later in the chapter. Awareness and understanding of open access among researchers is now high but not universal (Nicolas et al. 2017: 9; Wolff-Eisenberg, Rod, and Schonfeld 2016 48–49, 63; 2016a: 4, 57–60, 100), and as Eve (2017) states, ‘most researchers in the UK, as

231 See Maron et al. (2016), Mongeau (2018), and Smart et al. (2016) for more on the costs of monograph publishing.

elsewhere in the world, have come late to open access and have encountered it in response to government and funder mandates. For most researchers, open access only became a matter of concern when their institution's funding became linked to it as a requirement'. If they are introduced to open access in this way, it could influence how they perceive it – as an administrative burden rather than as a progressive social movement.

The Finch report, RCUK policy, and HEFCE policy all generated vigorous debate about the relative merits of different approaches to achieving widespread adoption of open access. Concern about implementation of the RCUK policy led to an inquiry by the House of Lords Science and Technology Committee (House of Lords 2013). Extensive evidence submitted to the inquiry by a variety of actors, such as scholarly societies, publishers, universities, open access advocacy groups, and individual researchers (see House of Lords 2013a), demonstrates the breadth of perspectives on the issue. A separate inquiry was also undertaken by the House of Commons Business, Innovation and Skills Select Committee (Department for Business, Innovation and Skills 2013). Outside of parliament, a plethora of reports has been produced monitoring the progress of post-Finch UK open access policy: the Finch Group's own follow-up report, *Review of Progress in Implementing the Recommendations of the Finch Report* in October 2013 (Finch Group 2013); *Counting the Costs of Open Access*, commissioned by London Higher and SPARC Europe, in November 2014 (Research Consulting 2014); an interim review of the effectiveness of the RCUK policy after one year, published in March 2015 (RCUK 2015b); an independent overview of the state of progress towards open access in February 2016 (Tickell 2016); and two reports commissioned by the Universities UK Open Access Coordination Group,²³² in August 2015 (Jubb et al. 2015) and December 2017 (Jubb et al. 2017), both entitled *Monitoring The Transition To Open Access*. These reports have focused more on the uptake of gold open access than green, perhaps reflecting the gold priority of the Finch report but mostly due to the effects of the RCUK policy being visible much sooner than the effects of the HEFCE policy.

The success of open access policy should not necessarily be reduced to an increased quantity of openly available content. However, in terms of the number of

232 Willetts asked UUK to convene an Open Access Coordination Group (see Tickell 2016: 10–11), which is responsible for both of the *Monitoring* reports and also the Tickell report.

research articles made open access as a result of the policies, the consensus is that they can be judged to be successful. The RCUK report noted that ‘of those institutions that provided compliance data, 94% reported that they had exceeded the 45% open access target set by RCUK for the first year of implementation’, and ‘the proportion of open access delivered by gold was greater than that by green’ with 10,066 gold publications (RCUK 2015b: 10–12).²³³ The first *Monitoring The Transition To Open Access* report stated that a sample of 23 institutions ‘spent a total of £8,806,723 on centrally-managed APC payments. This amounts to a 550% rise in expenditure since 2012, flowing from an increase in the number of payments. It is reasonable to assume that large-scale increases will continue in the next three years as compliance rates for RCUK and COAF-funded²³⁴ research outputs increase’ (Jubb et al. 2015: 51; see also Pinfield, Salter, and Bath 2017: 2252). The projected growth in APC payments did indeed occur, with the second *Monitoring* report – using data collected by Jisc (see Shamash 2017) – showing that a sample of ten universities increased the number of APCs paid from 766 in 2012 to 4,200 in 2016, and the total paid in 2016 by a larger sample of 37 institutions reached at least £18.5 million (Jubb et al. 2017: 39–40). Overall, the report showed substantial growth in the open availability of UK-authored research articles over the period 2012–16: by 2016, the proportion of such articles published through gold open access had risen from 12% to 30%, and for gold and green open access combined – i.e. all articles ‘accessible *immediately* on publication’ – from 20% to 37% (Jubb et al. 2017: 7, 23). This is well above the global average of 25%. The availability increases even further to 54% at 24 months after publication, compared to the global average of 32% (Jubb et al. 2017: 7–8, 26).²³⁵ Since the rate of increase in open access since 2012 has been so much higher in the UK than elsewhere, especially for gold and hybrid open access, it is clear that such a large increase can be directly attributed to the effects of the RCUK and HEFCE policies, if not wholly then at least significantly.

An important factor when analysing the implementation and effect of the

233 For comparison, Crawford (2017: 1) reports a total of 523,205 articles published globally in fully open access journals (i.e. excluding hybrid journals) in 2016, 43% of which were published without an APC needing to be paid.

234 COAF is the Charity Open Access Fund, administered by Wellcome Trust on behalf of a consortium of medical charities.

235 A significant number of the articles made available through the green route are posted on the scholarly social network ResearchGate in contravention of publisher policies. For more on the state of global open access, see Archambault et al. (2014), Crawford (2018), and Piwowar et al. (2018).

RCUK and HEFCE policies is that the money is entirely focused on gold open access. RCUK's block grants allow some leeway in how institutions spend them but they primarily go on APCs, and no extra money has been made available to implement the HEFCE self-archiving policy. The HEFCE policy was created in the knowledge that a majority of HEIs in the UK already had their own institutional repositories by that time (see OpenDOAR 2018). Additional staffing costs, however, have not been funded by HEFCE. The extra staffing levels required to implement UK funder open access policies was revealed by the most recent report on compliance with UK open access policy, *Monitoring Sector Progress Towards Compliance with Funder Open Access Policies* (Fraser et al. 2018). Jointly commissioned by HEFCE, the former RCUK, Jisc, and the Wellcome Trust, this work analyses a 2017 survey on institutions' progress in complying with open access policies.²³⁶ It showed a total of 335 FTE staff working on supporting and implementing open access in the UK, funded from institutions' own budgets or from RCUK funds, most of whom are employed at research-intensive institutions (Ibid., pp. 59–63). The HEFCE policy has been successful in raising the number of openly-available journal articles and conference proceedings, as after the first year of the policy 'over 80 per cent of the outputs covered meet the policy requirements' (Ibid., p. 6) – including over 80,000 items not covered by the RCUK policy. Whether or not the financial costs of achieving this may be considered worth the money is a different question. Indeed, when considering UK open access policy as a whole, even David Sweeney, Executive Chair of Research England, has argued that 'With rising subscription charges and increasing article processing charges (APCs) we need to question whether or not the UK has delivered a cost-effective way of achieving open access' (Sweeney 2018). The long-term implications of creating a whole new segment of open access workers within the higher education sector will not be fully understood for some time.

After the upheaval during 2012–15 with the Finch report and its immediate aftermath, the period of 2015–18 was one in which open access policy in the UK remained reasonably stable and became largely a matter of technical implementation, with no further big changes expected.²³⁷ Policymaker attention is

²³⁶ The survey itself is available as an annex to the main report (UK Research and Innovation 2018a).

²³⁷ Policy changes continue elsewhere in the world. For example, the Netherlands Organisation for Scientific Research (NWO) terminated their Open Access Incentive Fund, which supported APC

limited – there is only so much that they can focus on at any given time. Following the departure of David Willetts as Minister there has been a shift in the policy focus with regards to higher education, with his successor Jo Johnson²³⁸ focusing on passing the Higher Education and Research Act, so open access – which is not included in the Act – moved down the policy agenda. Open access was not mentioned at any stage of the parliamentary scrutiny process for the legislation so it is unsurprising that the sole mention of open access in the evidence submitted to the committee (Lawson 2016a) received no response.²³⁹ However, this does not mean that the government has changed its stance or no longer supports open access in principle, as indicated by Johnson’s positive response to the Tickell report (see Johnson 2016) and a later *Times Higher Education* piece (Johnson 2017) that reiterated his support. The Stern review of the REF was in favour of maintaining open access requirements (Stern 2016: 19, 30). Support has also been indicated by Johnson’s successor, Sam Gyimah (2018). But the fact that open access was not included in the legislation means that open access policy will continue to be developed and enacted at a devolved level within sector agencies, and not strictly coordinated from the government department. This is not an unusual situation; there are many policy areas that are not directly covered by primary legislation, and there been a general tendency over several decades towards UK governments using secondary legislation or statutory instruments to make policy changes rather than primary legislation (Fox and Blackwell 2013; Institute for Government 2018). For open access, responsibility now lies primarily with UKRI. Since the division of HEFCE that held responsibility for research and the REF has transferred to the new body Research England, which is part of UKRI, both main strands of the UK’s open access policy are now within the remit of UKRI. The first Chief Executive of UKRI is Mark Walport (UKRI [n.d.]) who was formerly the director of the Wellcome Trust when they first introduced an open access policy, so high-level support for open access is likely to continue; the initial UKRI strategy document mentions open access, and at the time of writing a policy review is underway (UK Research and

payments for Dutch universities, in January 2018 (Sondervan 2017).

238 There was another Minister in between these two, with Greg Clark holding the post of Minister for Universities, Science and Cities for 10 months prior to the May 2015 general election (UK Government [n.d.]). Johnson was in post from May 2015 until January 2018, when he was replaced by Sam Gyimah.

239 See Holmwood (2016) on the politics of government consultations.

Innovation 2018: 18).²⁴⁰

While the focus of this thesis is on the UK, it is important to take into account the international situation. A look at open access policies in other European Union nations is particularly instructive (see Science Europe 2016). At the time of the introduction of the RCUK policy, the UK was an outlier among research-producing nations in terms of prioritising gold open access. However, a few national funders have since followed suit, for example the Austrian Science Fund (FWF [n.d.]),²⁴¹ the Research Council of Norway (2014), and the Netherlands Organisation for Scientific Research (2018). These three countries' policies all allow green open access as a route to compliance but also provide funds to pay for APCs. In the Netherlands, the State Secretary for Education, Culture and Science – Sander Dekker – explicitly highlighted the UK as an example to follow when describing the Dutch position (Dekker 2014). The evolving policy environment in Europe is significant for the success of the UK's open access policy; even if the UK's first mover advantage²⁴² has already diminished – Austria, Sweden, Denmark, Norway, and Finland all have ambitious plans to move to full gold open access by 2025 (OANA 2015: 2–3), and Hungary and Romania also have a preference for gold (European Commission 2015: 17) – the more widespread adoption there is of gold open access, the less burden will be placed on the UK to pay for it while also maintaining subscription access.

At the European level, the multi-year EU research programme, which for the period 2014–20 is known as Horizon 2020, also has a policy requiring open access (European Commission 2012). The European Council of Ministers later endorsed a goal of achieving full open access to EU-funded publications by 2020 (Council of the European Union 2016: 8). Exactly what effect the UK's imminent exit from the European Union will have, including whether or not the UK will continue have access to EU research funding, is not yet clear (see Ayris 2017). The Finch group recognised that 'Since the overall effectiveness and impact of OA policies in the UK depends on developments in the rest of the world, it is also important that the

240 According to UKRI, 'the REF 2021 OA policy will not be affected by this review' (Research England 2018).

241 FWF also coordinates the Open Access Network Austria (OANA) which has produced a report with sixteen recommendations of how to shift the academic publication system in Austria to full gold open access by 2025 (OANA 2015). FWF does also fund some non-APC approaches to open access.

242 'First mover advantage' refers here to the ability of open access to increase the visibility of UK research above that of other nations, which is one of the attractions of policymakers to openly-available research.

Government and funders should remain active in seeking to influence and co-ordinate policy at an international level' (2013: 4). Whether Brexit's lessening of UK influence in policy-making (Else 2017) leads to a change in open access policy will remain an open question for the time being. It should be noted that the US, which is a far larger market than the EU (RELX Group 2018: 14),²⁴³ has not seen any high-level co-ordination towards gold-focused open access policy. Since the largest publishers derive so much of their revenues from the US, an international 'flip' to full gold open access is extremely unlikely in the current policy environment.

The neoliberalisation of open access?

So far in this chapter, the open access policies of the UK government and its agencies (HEFCE and RCUK/UKRI) have been addressed, looking at the reasons for these particular policies and the effects of their implementation. Now the groundwork laid in Chapter 5 and 6 on the neoliberalisation of public policy will be brought to bear on this policy area. In the introduction (Chapter 1), one of the issues that this thesis set out to investigate was whether the social justice goals of open access can still be achieved if open access is co-opted for neoliberal ends. This section addresses the issue by examining to what extent the UK's open access policy can be considered neoliberal, and then analysing whether the neoliberal elements of the policies are harming the broader progressive movement for open access or not. The argument is made that although there are indeed neoliberal elements to the RCUK and HEFCE policies, and pressure should be made to alleviate the worst effects of these, there have still been very tangible benefits arising from the policies and a wholesale rejection of them without adequate replacement may not be the best course of action.

In Chapter 5, the history and theory of neoliberalism were explored in order to understand exactly what neoliberalism is, and how liberty is perceived within neoliberal ideology. Neoliberalism can be understood as a political project to re-shape all social relations to conform to the logic of capital. Within the ideology that underlies this political endeavour, liberty, or freedom, is understood solely in terms of *economic* freedom. An 'open' society, from this perspective, is one with minimal

²⁴³ RELX Group's annual report states that 42% of revenues for the journals division ('Scientific, Technical & Medical') are from North America, compared to 25% from Europe (RELX Group 2018: 14). Wiley's journals division ('Research') also derives 42% of revenues from the US (Wiley 2017: 32).

restrictions on economic activity. This is the point at which neoliberalism and contemporary ideas about openness converge. In terms of contemporary open movements, as discussed in Chapter 4, openness refers to the freedom to access, use, modify, and share knowledge – it is about the ownership and control of that knowledge. Neoliberal policymakers have used the ambiguity in language to blur the meaning of openness as understood by open advocates – those working on open data, open access, etc. – with the meaning of openness as present in neoliberal ideology.²⁴⁴ So when neoliberal policymakers support open initiatives, they garner the support of people who are often (though not always) working from a left-wing perspective and for social justice causes, and direct their labour towards ends that serve the neoliberal project of saturating all social relations with the logic of capital.

Demonstrating the ways in which the UK's open access policy is aligned with neoliberal ideology does not mean that the framers of the specific policies were consciously attempting to design a neoliberal open access policy. As Chapters 5 and 6 made clear, neoliberalism has suffused all policy thinking – including research policy – to an overwhelming extent, to the point where neoliberal ways of thinking may simply appear as 'natural' and are unchallenged by alternatives. So whether or not policymakers are overtly aware of the neoliberal ideas that underlie policy goals, the outcome of the policymaking process ends up supporting these goals either way.

The previous section analysed some of the economic effects of the Finch report and subsequent RCUK policy, including the attempt to bring market logic to bear on open access and create a 'free market' in APCs. The result of the extra money given to institutions for spending on APCs has been a large increase in the number of articles published as gold open access through the APC route, especially in hybrid journals from the major subscription publishers. The support of the Finch report for hybrid open access has been criticised for failing to address the high price of hybrid APCs and for providing an additional revenue stream for subscription journals that does not incentivise them to flip entirely to open access and end the subscription element (Satori and Kingsley 2017; Shieber 2013: 35–37).²⁴⁵ Offset agreements have only partially contained the increasing cost of subscriptions and APCs. In line with

244 And vice versa – as Chapter 1 mentions, open advocates have sometimes used neoliberal arguments (albeit without necessarily recognising they are doing so), in order to attract the attention of policymakers.

245 For more on 'flipping' journals from closed to open access, see Solomon, Laakso, and Björk (2016).

neoliberal orthodoxy, the Finch report assumed that if all journals were to offer an open access option for a fee, price competition would emerge between journals that would drive down the APC price. This approach fundamentally misunderstands the nature of the journal market, which operates as an adjunct of academia's prestige economy (see Chapter 2; also Eve 2014: 43–61). The journal market functions more like a luxury goods market in which the brand name carries the most weight in terms of purchaser's conception of value. In addition, the dysfunctional nature of the subscription market has been exacerbated by the lack of price sensitivity caused by the way purchasing decisions are made – academics are the ones for whom journals are purchased, but it is library staff who actually make the purchases and manage the budget (Johnson et al. 2017: 17), thus shielding academics from the cost, particularly when journals are bundled together in big deals and not individually priced. The RCUK policy replicates this lack of price sensitivity in the APC market. By providing a lump sum of cash with no restrictions on how much can be spent on any given APC, most institutions have managed the funds on a first-come-first-served basis and paid whatever APC was required for the journals chosen by their authors (Sharp 2015: 5–6).²⁴⁶ There is some evidence that journals that are perceived as higher quality can charge higher APCs (Pinfield, Salter, and Bath 2017: 2256), but not that prices below the 'top tier' of high-impact journals are being driven down by competition. This situation is made particularly clear when publishers have a flat fee APC across their journal portfolio, despite the wide variance in impact factor, and perceived quality, between journals. The only mechanism to date that has been shown to drive down the cost of publishing open access in journals from a particular publisher is the introduction of offset agreements (Lawson 2016, 2017a, 2018b), but again this mechanism applies across a publisher's whole portfolio so is only tangentially related to the perceived quality of an individual journal.

It is important to note that what makes it possible to consider the RCUK policy as neoliberal is not merely its injection of cash into a market. Rather, it is the way it sets the conditions to force actors down a certain path, towards a situation where the individual financial transactions of APCs are the frame within which the publishing process is always conceived. When neoliberalism is understood as a political project

²⁴⁶ Based on a survey of fund managers, Sharp reports that a majority of institutions allow their authors to choose whether to pay an APC in a gold or hybrid journal. No evidence has emerged to date that open access policies have affected authors' decisions about which journals to submit their articles to.

to enforce market logic and to actively construct the conditions in which market-like transactions can occur, the APC model emerges as the single funding mechanism for scholarly publications that most closely fits this goal. Thus, here lies the significance of the Finch focus on APCs. As Popowich has argued, ‘Any act of resistance or progress must be analyzed with a view to whether it draws us further into the network of commodity relationships’ (Popowich 2018; see also Winn 2014).²⁴⁷ It appears that the APC funding model does indeed further entrench commodity relationships within scholarly communications. However, this is where a nuanced evaluation of the Finch report and RCUK policy is necessary, because it is more accurate to say that the APC model can be considered neoliberal (see Ghamandi 2017: 5), rather than open access *per se*. Indeed, arguments that open access is neoliberal often centre on the ‘author pays’ perspective about APCs, in which gold open access is (falsely) conflated with the APC funding model, and (falsely) stating that it is the author who pays, when in fact it is more commonly institutions and funders that pay APCs on authors’ behalf. Thus when critiquing the Finch report and the RCUK policy it is important not to succumb to the fallacy that gold open access is synonymous with APCs. When gold open access is understood more simply as one way of providing open access to research, independently of any particular funding model, then an anti-neoliberal critique of the policies should focus on the specifics of their support for hybrid and APCs and not reject them wholesale if other positive benefits can be found.

However, as Chapter 5 made clear, neoliberal ideology can manifest in more subtle ways than overt price signals within financial markets. It is also concerned with the increasing competitiveness of social interactions and the way they are structured along market lines. As such, the HEFCE open access policy can also be considered to contain neoliberal elements, which although they appear to be of a very different nature to those present in the RCUK policy, are still tightly related to market logic. The primary concern with the policy is the fact that it is tied to participation in the REF and framed in terms of compliance (Moore, forthcoming). The REF, as discussed in Chapter 6, is ostensibly a mechanism for assessing the quality of research, but is often viewed by academics as a means of exerting control

247 Note also the rhetoric of some MOOC providers about using open practices to ‘disrupt’ conventional education by providing mass education outside the purview of the state (Farrow 2015: 138–39).

over their behaviour by both government and by institutional managers. It has also been a key factor in the marketisation of research funding in the UK (Brown and Carasso 2013: 41–70). So by making participation in the 2021 REF conditional upon the open access status of research outputs, open access is drawn into the web of compliance and sanctions that results from the REF's competitive market-like system of assessment.

Having said this, compliance and sanctions, with their corollary processes of monitoring and enforcement – resulting in an environment structured by ‘metric power’ (Beer 2016) – are not unique to neoliberalism, even if they have been adopted as tools to accomplish neoliberalisation (Feldman and Sandoval 2018: 215). Therefore it can be argued that they are only ‘neoliberal’ when used for neoliberal ends. This makes the judgement as to whether the HEFCE policy can be considered neoliberal a complex one: on the one hand, the motivation behind the policy can be viewed as neoliberal, but on the other hand, the actual end result of the policy is in alignment with the aims of social justice-driven open access advocates. So this judgement depends on the question of whether to focus on actual results, or on the intentions behind them. As discussed above, the HEFCE open access policy has been successful in terms of increasing the number of openly available journal articles; however, the way things are done is vitally important if an ethical stance is to be taken towards publishing practices. As Deville (2018) and Moore (2018) have argued, an ethics of care is one such approach to constructing a more ethically-grounded academic publishing system. An ethics of care is not compatible with neoliberal ideology, because it requires:

taking an ethical stance towards our colleagues as human beings with complex needs that can't be squeezed into market-like patterns of behaviour [...] This way of thinking is not compatible with neoliberal ideology. Neoliberalism only cares about people in as far as they are exchangeable units expressing a value in a marketplace, not as human beings; it has no space for the attentiveness and responsiveness to both individual and collective needs that is embodied in the concept of care.

(Lawson 2018)

If engagement with (or tacit support for) the neoliberal government agenda is to be

avoided, then it is important to bear in mind how current government-supported open access policy fits in with the rest of the government's higher education agenda. This point may be particularly true for librarians, because if the kind of for-profit sector seen in the US (see Macmillan Cottom 2017) is what UK policymakers are trying to replicate, the implications for librarianship are stark.²⁴⁸ These for-profit institutions do not invest heavily in libraries and scholarly resources. They do not pay large amounts for journal subscriptions. Thus flipping to a gold open access system in which research-intensive institutions (and their funders) bear the largest share of research publication costs – whether that is APCs or some other mechanism – would mean that those institutions are subsidising access to research for those in the for-profit sector. The publicly-funded higher education sector would bear the cost and risk while the private sector reaps the benefits at no cost to itself, essentially transferring value from the public sector to private capital.

This possibility ties neatly with Willetts' reasoning about expanding access to research in order to boost 'the economy' (i.e. private profit). Indeed, the UK government's support of gold open access is intended not only to introduce further elements of competition into the scholarly communications market – although this is one effect, hence why no cap has yet been set on the price of an APC paid from RCUK funds because the market should decide on an 'appropriate' price – but also to increase levels of competition within the private sector more broadly. Willetts' theory is that if research is open access then it can lead to higher levels of commercial exploitation by the private sector. Although, ironically, this process has not yet been subject to measurement, the idea is consistent with Davies' (2014) depiction of how neoliberal theory emphasises the *potential* of future competition (i.e. capacity for wealth generation) as the primary measure of competitiveness.

A final consideration regarding the neoliberalisation of the UK's open access policy is the effect on the rest of the world of so heavily promoting the APC funding model. Since the price of APCs is set at a level to be paid by European and North American research funders, they are unaffordable for most. The importance of acknowledging the global situation, rather than acting purely in the interests of the UK, is a central concern of the following chapter.

248 As with their parent institutions, university libraries have also been undergoing a process of neoliberalisation (Cifor and Lee 2017; Lawson, Sanders, and Smith 2015; Quinn and Bates 2017; Seale 2013).

Conclusion

This chapter has explored the links between neoliberal ideology and the UK's open access policy. It has shown how the specific open access policies introduced by RCUK and HEFCE exhibit, to some extent, traits that are found in neoliberal theory. This is no surprise when the thinking of policymakers has become so suffused with neoliberal ideas. However, it does not necessarily mean that 'left-spectrum' advocates who wish to see open access to all research should reject the policies wholesale, or even abandon the notion of having open access policies at the nation- or sector-level. In order to maintain the very real benefits that have occurred through the implementation of such policies – i.e. a significant increase in the amount of openly-available research from the UK – it would instead be more pragmatic to think through whether there are alternative options for open access policies that maintain the benefits while doing away with the neoliberal elements. To this end, the next chapter will explore the idea of the *commons* as one potential avenue for achieving this.

Chapter 8. The Commons as an Alternative Policy Framework

‘... we need to create new imaginaries; we need to imagine our collective futures differently from the neoliberals. It is not enough to simply reject neoliberal policies and enactments and demand a return to some romanticized past time. We must break the cycle, the dialectic, and imagine different futures where markets are merely one among many forms that institutions can take’

(Busch 2017: 111)

In the preceding chapters, significant progress has been made in understanding the historical, political, and economic circumstances that have led to the kind of open access policy seen in the UK today. This chapter will go a step further and tackle a key question: if current open access policy is contingent on a multitude of environmental constraints, then is it possible to design alternative policies, and if so what could they look like? In particular, the focus here is on the idea of the *commons* and possibilities for commons-based open access policy. The political economist De Angelis has argued that ‘it is difficult today to conceive emancipation from capital [...] without at the same time organizing on the terrain of the commons, the non-commodified systems of social production. Commons are not just a “third way” beyond market and state failures; they are a vehicle for *claiming ownership* in the conditions needed for life and its reproduction’ (De Angelis 2012: 185). It is this ‘claiming ownership’ in the territory of scholarly communication through the act of commoning that could provide a path towards a wholly different future for open access. By concentrating on the commons in this chapter, however, the intention is not to claim that this approach is the *only* possibility for an anti-neoliberal or non-market based open access policy. Instead, the purpose is to show that it is possible to imagine alternatives, even within the confines of a policy environment still saturated with neoliberal ideology.

The commons is a method of organising resources that sits outside both market and state, and can potentially manage certain kinds of resources more effectively

than either a market or a state. The commons has frequently arisen as a potential organising principle for scholarly works (see below); it also features heavily in the rhetoric of open advocates, especially in discussions regarding the appropriate (or inappropriate) role of copyright and licensing for scholarly works. Following the critique in Chapter 7 of the neoliberal aspects of UK open access policy, this chapter explores the extent to which the commons can be a useful concept for advancing an anti-neoliberal open access policy. An explicitly anti-neoliberal policy must be *against* the defining traits of neoliberal ideology, such as considering competition to be a fundamental characteristic of human behaviour, and economic efficiency as a primary measure of value. So the commons can act as a theoretical framework²⁴⁹ providing a means to construct an alternative open access policy beyond neoliberal trappings and focused instead on community stewardship and care.

For several decades the dominant political environment has been highly resistant to non-market solutions such as the commons.²⁵⁰ One of the architects of neoliberal ideology, Hayek, argued that sufficiently complex systems, such as modern economies, cannot be adequately organised through central planning. Hayek claimed that decentralisation is necessary to organise such complex systems²⁵¹ and only *competition* can effectively manage decentralised systems (Hayek 2001 [1944]: 51). The second part of this claim is challenged in this chapter, by drawing on work ranging from Ostrom's analysis of common-pool resources (Ostrom 2015 [1990]), through to contemporary network theory such as that of legal scholar Yochai Benkler, who has written extensively about organisation within decentralised networks and how *cooperation* can co-ordinate action more effectively than competition in at least some circumstances (Benkler 2002, 2006). Hayek claimed that the price system under competition is the only system that can accomplish this organisation (Hayek 2001 [1944]: 50–51) and much of his work – and thus

249 As the analysis below will make clear, the commons is not *only* a theoretical framework – it is a living institutional form that has been used to organise human activity for many centuries.

250 At the time of writing, neoliberal hegemony as outlined in Chapter 5 does appear to be on the wane, with a growing movement for alternative political visions fighting back – from both the right (in the form of protectionist nationalisms) and left (through democratic socialism). However, for the purpose of this thesis, which concentrates on analysing open access policy at a specific time and place (the UK during approximately 2010–15), it is still reasonable to consider neoliberalism to be a primary structuring principle for determining which political futures are seen as possible.

251 The original draft Statement of Aims of the Mont Pelerin Society stated that 'Only the decentralization of control through private property in the means of production can prevent those concentrations of power which threaten individual freedom' (Hartwell 1995: 49).

subsequent neoliberal ideology – hinges on this assertion, so by exploring contemporary alternatives to Hayek’s claim it is possible to open up a broader range of policy options. A third alternative to either competition or central planning (authority-based decision making by states or other monopolistic organisations) is decentralised cooperation.²⁵² In the argument against planning as a form of co-ordinating the variety of specialist interests found in a society, Hayek said: ‘The economist is the last to claim that he has the knowledge which the co-ordinator would need. His plea is for a method which effects such co-ordination without the need for an omniscient dictator’ (Hayek 2001 [1944]: 58). Perhaps the method Hayek was seeking, as a formal structure of co-ordination, may actually be found not in market competition but in commons-based peer production. Therefore commons-based peer production, as a way of structuring and organising activity in a given domain (see below), could be an alternative organising principle to replace competition in order to achieve an open society.

Neoliberalism, as its critics suggest, is based on a simplistic and fundamentally flawed notion of human behaviour, that we are all inherently both selfish and rational.²⁵³ This chapter is written from the contrary perspective that humans are in fact social beings with a strong propensity to cooperate. As such, the commons offers a valuable framework for understanding the collective behaviour of those who contribute to the scholarly record. As Bollier argues,

the language of the commons [...] provides a coherent alternative model for bringing economic, social, and ethical concerns into greater alignment. [...] [The commons] fills a theoretical void by explaining how significant value can be created and sustained outside of the market system. The commons paradigm does not look primarily to a system of property, contracts, and markets, but to social norms and rules, and to legal mechanisms that enable people to share ownership and control of resources. The matrix for

252 This may be a key point of the thesis: if Hayek and Popper are wrong that free markets lead to openness, then perhaps *decentralised cooperation* (commons-based peer production) is the logical mode of coordinating action in complex open systems. Hayek may be right about the limitations of planning, but wrong about liberal markets (price mechanism) as the solution.

253 Although, Spieker (2002) has argued that Hayek believed that humans had evolved to embody collectivist attributes such as solidarity and altruism, and part of his political project was to constantly fight against these instincts in order to maintain the self-interest necessary for his version of an open society. Later proponents of neoliberalism have rarely engaged with this aspect of Hayek’s thought.

evaluating the public good is not a narrow economic index like gross domestic product or a company's bottom line, but instead looks to a richer, more qualitative and humanistic set of criteria that are not easily measured, such as moral legitimacy, social consensus and equity, transparency in decision making, and ecological sustainability, among other concerns.

(Bollier 2011a: 29)

In the first section of this chapter, the history of common land in the UK is briefly sketched out, to ground the later theoretical analysis. Next, the concept of the commons is analysed. This is followed by examining the application of commons theory to the realm of information/knowledge, and then particularly to scholarly knowledge, with the idea of a scholarly commons. In a similar way to how Chapter 4 considered openness as a complex phenomenon that eludes reductive definitions, this chapter works towards a certain level of clarity regarding what the commons is, while recognising that the concept is a complex one with a wide variety of instantiations. The final section returns to open access policy, and builds on the critique of existing open access policy given in the previous chapter by exploring avenues for policy interventions that could work towards a commons-based open access environment.

The purpose of this chapter is not to suggest a single answer to the challenges of freeing open access from neoliberal ideology, or to propose a grand vision of an ideal scholarly communication system. Instead, the aim is a more modest one – it is to show that there *are* possible alternatives; to examine one of these – the commons – in depth; and to think through some of the policy issues and practical challenges that might be encountered in moving towards a more commons-based approach to scholarly communication. The fact that this search for alternatives to neoliberal hegemony focuses on collective endeavours is not a coincidence; as Feldman and Sandoval (2018: 227) argue, ‘alternatives are necessarily collective’ because they ‘cannot be built by isolated individuals but require a group of people to work together to create systemic change’. It is thus appropriate to begin this account with recognition of collective activities, ‘commoning’, that were once common and may now inspire a new form of (scholarly) commons.

Commoners and common land

The history of common land is also a history of its enclosure. In the UK, land enclosure beginning in the eighteenth century drastically changed the relations of people to their immediate environment (Neeson 1993). A series of acts of Parliament from the mid-eighteenth to mid-nineteenth centuries reduced the proportion of common land from 21% of the entire land area to a tiny fraction of that, leaving mostly moorlands and uplands away from densely populated areas (Rodgers et al. 2011: 1–3; Yelling 1977). Previously, many commoners had various rights with regards to common land, such as grazing livestock on pastures, and collecting firewood (Neeson 1993). It is important to recognise that common land in England and Wales ‘is neither communally owned, nor ‘no man’s land’ (*terra nullius*); rather, it is privately owned land over which others possess use rights, giving them legally recognised access to particular resources’ (Rodgers et al. 2011: 4). This ‘possession without ownership’ (Neeson 1993: 3) was a form of rights that shared resources within a local community:

Common land occupies an ambiguous middle ground between private and communal property, in which legal and idealized concepts of ‘ownership’ commonly intermingle, as the formal legal framework of property rights intersects with changing cultural perceptions. [...] On one level common land is a symbol of communality, a popular and egalitarian resource; while on a formal level, and often in reality, it has been a place of exclusivity and jealously guarded rights.

(Rodgers et al. 2011: 10)

Therefore traditional common rights for local people to access land and use it for certain purposes should not be confused with communal ownership or the belief that the land belongs to ‘everyone’ (Navickas 2018). Since common land was never strictly ‘owned’ by those disenfranchised of tenure or access rights during enclosure, it is not the ‘privatisation’ of previously-owned property that makes the enclosure a process of reducing people’s rights, but rather a change in power relations. Indeed, Neeson (1993: 12) has argued that the loss of common right through parliamentary enclosure acts in England and Wales ‘played a large part in turning the last of the

English peasantry into a rural working class'. A similar process is also clear in Scotland, where land enclosure during the same period (mid-eighteenth to mid-nineteenth centuries) led to the forced displacement of rural populations known as the 'clearances', with many people relocating to the new industrial towns of central lowland Scotland (Devine 2018).

Land enclosure is, of course, not restricted to this particular period of British history. Indeed, throughout the colonial era, much of the world's land was appropriated and privatised by Britain, other European nations, and the settler colonies they founded, such as in North America (see Chang 2011; Greer 2012). Enclosure is still ongoing, with vast areas of common lands in some parts of the global South being sold to private developers in 'land grabs' (Borras et al. 2011; White et al. 2012; Wily 2011). Therefore the specific history of land enclosure in the UK is but one example of the dispossession of rights to common land or resources. In the next section, the concept of the commons is analysed through an institutional lens in order to clarify exactly what is meant by 'commons'.

The commons

'The commons' is used as a shorthand for referring to resources that are used by many people in common and the rules that govern use of these resources. *Commons* and *common-pool resources* are not the same thing; common-pool resources only become a part of a commons when they are governed by certain kinds of rules (see below). The necessity of social relations for the existence of a commons has led to the phrase 'no commons without commoning' (see Bollier 2011; Paysan 2012: 4).²⁵⁴ Research in this area until recently focused on the management of natural resources such as grazing areas and fisheries; the later application of these ideas for an 'information commons' is discussed further in the next section. Elinor Ostrom's *Governing the Commons* (2015 [1990]) is a defining text in commons scholarship that draws on a wide range of empirical case studies to theorise effective strategies for the governance of common-pool resources (CPR), defined as 'a natural or man-made resource system that is sufficiently large as to make it costly (but not

254 Two of the central theoretical concepts examined in this thesis, neoliberalism and the commons, are both best understood as active processes – *neoliberalisation* and *commoning* – rather than static states. Commoning, however, should involve the active willing participation of commoners, which is infrequently the case with neoliberalisation.

impossible) to exclude potential beneficiaries from obtaining benefits from its use' (Ostrom 2015 [1990]: 30). Ostrom undertakes institutional analysis to examine these strategies, and argues that collective action by voluntary organisations acting outside of either the state or the market can form the most appropriate institutions for regulating the use of common-pool resources (Ostrom 2015 [1990]: 1, 14–21).

Classic arguments against the efficacy of existing strategies for managing CPR centre on the 'free rider' problem. This problem describes a situation in which there is a non-excludable resource that many people can use, as in CPR, and there is nothing to stop them taking as much from the resource as they wish. According to those economists who view people as inherently selfish and individualistic, the 'rational' action for people to take in this situation is to use the resource without contributing back (see Olson 1965). In other words, an individual can 'free ride' off the actions (or labour) of others. If free riding leads to a resource being over-exploited then it can cease to be sustainable and then either no-one is able to benefit from it, or the benefit is greatly reduced. So the collective interests of a group of people may be undermined by the individual interests of the members of the group. The standard response of classical economists to free rider dilemmas is that either centralised state control or a free market are the only possible solutions – and as Chapter 5 has analysed extensively, this binary choice has been strongly emphasised by neoliberal thinkers who believe that free market solutions are the only acceptable choices for determining the governance of resources.

Ostrom attempts 'to understand how individuals organise and govern themselves to obtain collective benefits in situations where the temptations to free-ride and to break commitments are substantial' (Ostrom 2015 [1990]: 27). Her critique of the free rider problem is that it makes the fundamental mistake of assuming that formal criteria used in abstract economic models actually apply directly to real-world situations (Ibid., pp. 6–8). In particular, game-theoretical economic models such as the prisoner's dilemma or Hardin's 'tragedy of the commons' (1968) assume that people are fully rational, do not communicate with each other,²⁵⁵ and are unable to change the rules by which they are governed. By instead grounding her theory in a detailed understanding of empirical evidence regarding institutional governance models in a wide variety of existing situations,

255 See Janssen (2013) for more on how communication effects the way people behave in relation to common-pool resources.

Ostrom is able to take a more nuanced and realistic view, and to outline other models for governing common-pool resources that sit outside of either state or market solutions (see also Mattei 2012).

The general model for commons governance is that individuals who wish to make use of a common-pool resource make a mutual agreement, in the form of a binding contract, to cooperate. Participants to the agreement create an organisation, commit to following its rules, and monitor compliance (Ostrom 2015 [1990]: 45). This strategy allows them to share the benefits of using the resource, although they must also bear the costs of enforcement. Monitoring activities and the punishment of infringers may be undertaken by an external actor but tend to directly involve the participants themselves (Ibid., pp. 15–18, 59, 68–69). As Olson argues, ‘when a number of individuals have a common or collective interest – when they share a single purpose or objective – individual, unorganized action [either will] not be able to advance that common interest at all, or will not be able to advance that interest adequately’ (Olson 1965: 7). So in CPR situations, collective action – working together to achieve a shared goal (see Hess and Ostrom 2011: 10; Olson 1965) – is a way to enhance the outcome for all affected individuals. One of the key aspects of Ostrom’s work – and the reason for the lengthy discussion of it here – is that it was the first comprehensive analysis of successful organisational strategies in existing CPR situations. Many of these can be described as ‘self-organised’. To say that a community is ‘self-organising’ or ‘self-governing’ means that organisation and governance occur internally to that community. The community may still interact with, and rely on support from, external actors; but the rules that structure its behaviour are decided internally to the group. Precise details of institutional arrangements will vary for each situation; there is no ‘one-size-fits-all’ solution because of the multiple physical, technological, and economic factors that structure the possible governance arrangements of a given CPR (Ostrom 2015 [1990]: 50).

Analysis of natural common-pool resources is a useful starting point for considering alternative collective action strategies that sit outside of either market or state solutions. However, information- or knowledge-based resources such as scholarly texts have a very different form. It is therefore necessary to now expand the analysis to encompass knowledge commons, and consider the attributes specific to knowledge resources that may determine effective governance strategies.

Knowledge commons

A commons of information or knowledge resources²⁵⁶ is subject to different economic principles than natural commons. Before going into the specifics of scholarly commons in the following section, this section will examine general features of knowledge commons. They can be considered as comprising three components: facilities, artifacts, and ideas (Hess and Ostrom 2003). Ideas and artifacts correspond to the legal distinction between an idea itself, which is intangible, and an expression of an idea, which is the physical embodiment of an idea in a particular material artifact (Pottage and Sherman 2013: 11–15).²⁵⁷ The third structural aspect of a commons, facilities, are the physical infrastructures that house artifacts (such as libraries and archives, whether they are digital or otherwise). Thus in a knowledge commons, knowledge is instantiated in material containers which require a supporting infrastructure for long-term storage and access. All three of these components consist of both human and non-human elements (Hess and Ostrom 2011: 47) so it is not possible to consider a commons without the social dimension; as Hess and Ostrom argue, a commons is ‘a resource shared by a group of people that is subject to social dilemmas’ (Hess and Ostrom 2011: 3). A commons is not a *thing* so much as a governance regime (Madison, Frischmann, and Strandburg 2012: 370). Although the typology used by Hess and Ostrom – facilities, artifacts, and ideas – may be applied to both digital and analogue commons, the rest of the analysis in this chapter will focus solely on *digital* knowledge commons because that is the domain within which open access sits.

256 The terms ‘information commons’ and ‘knowledge commons’ are used interchangeably throughout this chapter. The classic definitions of data, information, and knowledge present them in a hierarchical relationship, with data as discrete facts; information as structured, organised, and contextualised data; and knowledge as information that has been processed and understood through the application of human judgement (see for example Desouza and Paquette 2011: 36–37; Rowley and Hartley 2008: 5–6). Hess and Ostrom use the term knowledge to refer to ‘all types of understanding gained through experience or study, whether indigenous, scientific, scholarly, or otherwise nonacademic’, and including creative works (Hess and Ostrom 2011: 8).

257 The phrase ‘immaterial commons’ is sometimes used as a synonym for knowledge commons or digital commons (e.g. Kuhlen 2012), but this is slightly misleading because information always has a physical reality – it can only exist as encoded within a physical substrate (Floridi 2010: 60–72; Gleick 2011: 355–72).

A fundamental difference in thinking about commons of information resources rather than natural resources is the issue of scarcity. The primary reason why natural resources require effective governance to ensure long-term sustainability is that they are scarce, and thus mis-management can lead to degradation of the resource. The situation for information resources is very different because resource units are not subtractable, meaning that a resource does not deplete when it is used (Hess and Ostrom 2011: 5), but can be infinitely copied with zero or near-zero degradation (see also Benkler 2006: 36). In other words, digital networks help to overcome the problem of scarcity (Levine 2011: 250). The relevance of this point for scholarship is discussed in the next section. Subtraction of resource units, though, is not the only scarcity issue – the contribution of labour towards maintenance of a commons resource can sometimes be as important as resource allocation (Eve 2017b; Ostrom 2015 [1990]: 86). So for knowledge commons, distribution of labour becomes a central governance issue – the collective action problem here is about fairly apportioning the labour that is necessary to construct, or maintain resource flow into, the commons. There is also the related issue of reducing as far as possible ‘free riders’ who do not contribute labour towards the construction of the commons. In an information commons, the issue of free riding applies to the *provision* of the resource rather than use.²⁵⁸ Equity, also, is about just contribution to the maintenance of a resource, rather than extraction from the resource (Hess and Ostrom 2011: 6).

In a digital knowledge commons, free riders do not pose the same risk in terms of resource sustainability that they sometimes do for a natural commons. This is due to two interrelated qualities of this kind of commons: their digital nature, and excludability. Private property is founded on excludability, so non-excludable resources – or resources to which excluding access would be prohibitively costly – pose a challenge to economic models of private ownership. Commons goods fit into this category (Ostrom and Ostrom 1977). Non-excludable resources do also exist in non-digital form, such as radio broadcasts or clean air, but digital resources are more likely to be non-excludable due to the ease with which they can be copied. Since the excludability of goods is a contingent quality that is created in the use of goods,

258 It has been widely argued by proponents of F/OSS that free riders are actually a good thing for their community (see Weber 2004: 153–55), and the same may be said of other digital knowledge commons: ‘Others outside that community who browse, search, read, download, or print out documents in the repository are *not* free riding. In fact, they enhance the quality of the resource by using it’ (Ostrom and Hess 2011: 58; see also Suber 2011: 180).

rather than an intrinsic quality (Helfrich 2012a: 65), a transition from analogue to digital cultural artifacts potentially alters what kind of economic goods they are. For instance, according to Hess and Ostrom (2011: 9), the intangible knowledge found in the reading of a book is a public good, whereas the tangible artifact of a printed book is a private good. But the change from print to digital books allows the possibility for the structure of a good to change from private to commons, because an openly-licensed digital text that is accessible to many people simultaneously is no longer easily excludable.²⁵⁹ This structural change of form is a process that Hess and Ostrom (2011: 10) identify as occurring repeatedly following the introduction of digital technologies, which:

can enable the capture of what were once free and open public goods. This has been the case with the development of most “global commons,” such as the deep seas, the atmosphere, the electromagnetic spectrum, and space, for example. This ability to capture the previously uncapturable creates a fundamental change in the nature of a resource, with the resource being converted from a nonrivalrous, nonexclusionary public good into a common-pool resource that needs to be managed, monitored, and protected, to ensure sustainability and preservation.

Thus the economic form of a resource can change, but if it is to become a commons, the necessary social structures of commons governance are required. If these are not put into place, then the digitisation of knowledge resources could in fact have the opposite effect – what Boyle calls a ‘second enclosure movement’ (2003; see also Hess and Ostrom 2011: 3, Kranich 2011: 85–93), in reference to the ‘first’ enclosure movement in Britain during the late eighteenth and early nineteenth centuries, as described above.²⁶⁰ The withdrawal of communal rights to land use, or privatisation,

259 The fact that huge numbers of people can potentially use the same resource at the same time with near-zero degradation – not necessarily *zero*, because the physical nature of digital resources means that problems like bit rot still exist – means that, unlike for natural commons, in a digital knowledge commons it is not always necessary for there to be prescribed limits to the size of the resource or the quantity of resource extraction.

260 Boyle’s understanding of the first enclosure movement may not be precise from a historical legal sense, because he described the enclosing of common lands as ‘the process of fencing off common land and turning it into private property’ (Boyle 2003: 33–34). However, as Rodgers et al. (2011: 10, 21–27) state, the land that was enclosed in England and Wales was already private property, though additional communal rights were granted in relation to it. This confusion is

is echoed in the contemporary privatisation of knowledge resources whereby intellectual property law is used as a tool for enclosure. This knowledge enclosure occurs across many domains, such as the (over)patenting of genetic material of plant crops, that leads to what Heller (1998) has termed the ‘tragedy of the anticommons’ whereby the full potential of resources is not realised because legal restrictions result in their underuse. Just as enclosure of land dispossessed people of the social value that could arise from the land’s use, enclosure of knowledge commons prevents people from obtaining the full benefit of that knowledge.

To describe the construction of barriers to access knowledge as a form of ‘closure’ or ‘enclosure’ recalls the political perspective on openness that was examined in Chapter 4. Therefore it is useful to return here to the topic of freedom and closure in the digital realm. Benkler (2002, 2006) has been among the most thoughtful advocates for examining the social and political potential of digital technologies. Although Benkler takes care not to succumb to utopian visions of what an idealised internet should be, his optimism about the ability of the ‘networked information economy’ to enable a wholesale shift towards ‘decentralized individual action—specifically, new and important cooperative and coordinate action carried out through radically distributed, nonmarket mechanisms that do not depend on proprietary strategies’ (Benkler 2006: 3) already seems slightly archaic given the ongoing corporate control of the internet, the ability of elites to manipulate what information is seen online, ubiquitous surveillance, and the global turn to authoritarianism (Cadwalladr 2017, 2017a, 2017b; Murakami Wood 2017). However, there is still value in the insights about what he terms *commons-based peer production*: a ‘new modality of organizing production: radically decentralized, collaborative, and nonproprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands’ (Benkler 2006: 60).²⁶¹ As with most people writing about knowledge commons, Benkler uses the

present in much of contemporary writing about commons, such as when Bollier argues that in many cases, ‘the fruit of the commons cannot or should not be converted into money. That’s because the common wealth is often an irreducible, inalienable social wealth. Typically, a commons must retain its organic integrity for it to remain productive; it cannot be broken into fungible pieces and bought and sold’ (Bollier 2004: 5–6). This is an ahistorical interpretation, demonstrating the kind of arrangements that Bollier *wants* to see, rather than what necessarily must be.

261 Benkler is not alone in believing that digital networks hold a special role in supporting commons – for instance, Bollier (2011) has argued that ‘open networks are a natural hosting infrastructure

term ‘commons’ in a less strict sense than Ostrom, and regards open access resources²⁶² as a type of commons – ‘open commons’ – rather than a separate category of resource (Benkler 2006: 61). However, Benkler’s interest in the commons revolves around some of the central issues discussed in this thesis – power, control, and freedom:

the core characteristic of property as the institutional foundation of markets is that the allocation of power to decide how a resource will be used is systematically and drastically asymmetric. That asymmetry permits the existence of “an owner” who can decide what to do, and with whom. We know that transactions must be made—rent, purchase, and so forth—if we want the resource to be put to some other use. The salient characteristic of commons, as opposed to property, is that no single person has exclusive control over the use and disposition of any particular resource in the commons. Instead, resources governed by commons may be used or disposed of by anyone among some (more or less well-defined) number of persons, under rules that may range from “anything goes” to quite crisply articulated formal rules that are effectively enforced. [...] The characteristic of commons is that the constraints, if any, are symmetric among all users, and cannot be unilaterally controlled by any single individual. [...] [This] characteristic—that commons leave individuals free to make their own choices with regard to resources managed as a commons—is at the foundation of the freedom they make possible. [...] It is the freedom to interact with resources and projects without seeking anyone’s permission that marks commons-based production generally, and it is also that freedom that underlies the particular efficiencies of peer production

(Benkler 2006: 61–62)

In this view, commons are primarily about freedom for individuals. Such an argument does not align with the understanding of commons seen elsewhere in the literature, and may reflect the libertarian ideas about freedom that are so prevalent in

for commons’.

262 In this case referring to ‘open access’ in the economic sense of inexcludable resources, rather than open access to research.

the F/OSS communities that influenced Benkler's thinking. As seen in the discussion in Chapter 4, issues around power and control within decentralised networks are by no means straightforward, and decentralised technical architectures do not necessarily result in a concomitant degree of freedom of all users of those networks. However, Benkler's work is still a valuable contribution to theorising the knowledge commons, not least because of his argument that for knowledge resources existing in a digital network, it may be more effective to co-ordinate activity through cooperation than competition (Benkler 2006: 6–7, 35–36, 107–21). Ostrom has previously shown how intra-group cooperation is an effective way to govern commons, and Benkler has provided a theoretical grounding – based on extensive empirical examples – for why networked knowledge resources can be particularly suited to cooperative organisation. Benkler may have overreached in the extent to which he believed the form of organisation based around peer production was likely to form a core part of modern economies,²⁶³ but his ideas still have value for the consideration of some *particular* areas of society. Software creation is clearly one such area, and the parallels between F/OSS and scholarly communication (see Chapter 4) indicate that academic publishing could be another.

The description of an information commons outlined so far in this chapter applies very closely to free and open source software (see Schweik and English 2007). As Chapter 4 has shown, F/OSS is defined by both a new approach to software licensing and also distributed collaboration processes (see also Schweik 2011: 279–81). So the *content* of F/OSS and the *process* of content generation are indivisible when considering the structure of F/OSS as both a resource and a community. F/OSS is a common-pool resource: it is used by many people in common; it has coordination mechanisms and governance structures in place, with rules regarding contribution processes and conflict resolution; and as with other knowledge commons, the collective action or free rider dilemma is on the supply side, for maintenance of the resource, rather than on the demand side regarding extraction or exploitation of the resource. Whether *open access research* can be seen

263 Ironically, he also under-reached, by failing to engage with feminist and gender theory which have long argued for understanding the importance of nonmarket labour activity outside of the workplace – particularly performed by women – in playing a vital role in the functioning of society. In common with most of the early theorists of the web, Benkler's omission of how extant power inequalities based on race, gender, class, (dis)ability, sexuality, and so on interact with the possibilities of digital technologies perhaps explains why they were able to reach such optimistic predictions.

as a commons is difficult to ascertain, in part due to the ambiguity as to what exactly counts as open access. ‘Free access’ to research, such as through repositories without open licenses (see Moore 2017), is not enough to make it a commons (despite such repositories sometimes having the word ‘commons’ in their name). And for open access to be seen as a commons in the same way as F/OSS is, would require distributed collaboration to have as prominent a place as open licensing. Perhaps the general process of asynchronous collaboration within academia, whereby additions to the scholarly record are made over time through publication by numerous authors, can count as such a form of distributed collaboration.

In terms of changes to the ‘institutional ecology’ that Benkler, writing in 2006 (see pp. 22–23), was predicting could happen once networked digital technologies were fully embedded in the economy, the most ‘disruptive’ change has arguably not been through the adoption of commons-based peer production but rather the emergence of platform capitalism. Srnicek writes that the platform ‘has emerged as a new business model, capable of extracting and controlling immense amounts of data’ (2017: 6).²⁶⁴ Political and economic power generated through the data amassed in participatory web services is concentrated in the handful of corporations that own the platforms those services run on, not in the users themselves. This concentration can be exploited as part of other ongoing power struggles, especially due to the reliance on advertising for so much of these platforms’ revenues. Most notably, public opinion regarding key votes in Britain and the US in 2016 was apparently manipulated by wealthy individuals and by Russian authorities through the purchase of targeted advertising on social media (Cadwalladr 2017a, Solon and Levin 2017). Furthermore, platforms that are used to coordinate physical resources such as Uber and Deliveroo are hyper-capitalist firms that base much of their business models on circumventing labour laws and organised labour. As such, the presence of platform capitalism in higher education, for instance the academic social networking platforms ResearchGate and Academia.edu (see Ovadia 2014; Jordan and Weller 2018; Joy 2016), is drawing universities further into patterns of working that position academics as entrepreneurs of the self, in what Gary Hall (2016) has termed the ‘uberfication of the university’. Therefore digital technologies are facilitating the intensification of neoliberal ideology within higher education; as Brown (2015) argues, the application of market-like logic to all social relations is actively turning

264 See Scholz (2014) and Scholz and Schneider (2017) on platform cooperativism as an alternative.

us into the rational-actors of *homo oeconomicus*. In this view, the conversion of citizens into ‘human capital’ reconfigures individuals’ relations to the state and to each other, posing a threat to the future of democracy, so active resistance is needed if we are to retain enlightenment values of equality, freedom, and democratic rule.

The commons has been proposed as just such a means of resistance. Indeed, Bollier and Helfrich position the commons as a political strategy aligned with social movements that are working for progressive causes in ways that move beyond ‘governance systems that do not allow [people] meaningful voice and responsibility’ (Bollier and Helfrich 2012: xi).²⁶⁵ The advocacy of commons governance as a ‘third alternative’ beyond the market and state plays a strong role in understanding the commons as political, though it is worth noting the glaring lack of anarchist thought in analyses of the commons. While there is not space in this thesis to do full justice to the rich history of anarchism and syndicalism, it is important to note that there is an extensive array of anarchist modes of organisation in both theory and practice, and these alternative models of cooperation have long provided an alternative to organisational thinking rooted solely in a state/market binary. The lack of engagement with anarchism by those writing on many of the interrelated topics of this thesis – the commons, the organisation of scholarly communication, open movements in general – could perhaps be attributed to a reluctance by many people working in these areas to explicitly position themselves on the political left.

The following section further considers the relationship between open access and the scholarly commons, so it is necessary to make clear the distinction between open access and commons resources. When speaking of natural resources, the terms ‘open-access’ resources and ‘common-property’ resources refer to very different situations. An open-access natural resource is inexcludable, so there are no governance mechanisms in place to regulate the use of the resource and anyone may access it. Resources that are governed as a commons, on the other hand, are used only by a self-governed community with defined membership rights (see Ostrom 2015 [1990]: 222, note 23). So when considering open access to research as a commons, the term open access – in the sense outlined in Chapters 1 and 4 – does have a similar meaning as it does in the policy literature on natural or environmental

265 Bollier and Helfrich tend towards somewhat overblown rhetoric as to the potential political impact of the commons, seeing the idea as a new grand narrative with far greater reach than the relatively limited role that Ostrom and colleagues saw for natural commons.

commons, because the focus is on a lack of restrictions on use.²⁶⁶ Unlike a natural commons, a knowledge commons – as discussed above – does not *necessarily* have restrictions on who may use the resource, although sometimes they do. Access to a natural commons may be closed off to most people, except those within a pre-defined community, whereas knowledge commons *may* be closed off or may be accessible to ‘all’ (with the usual caveats about barriers to access due to lack of money, connectivity, language ability, etc.; see Chapter 2) depending on the governance rules in place for that particular commons. Therefore to speak of open access (to research) as a commons is consistent with the terminology used by political scientists.

Scholarly commons

This section explores the idea of scholarly commons, used here to mean a specific kind of knowledge commons in the sense derived from Ostrom and Hess’ work (2011, 2011a), which in turn is an adaptation of the concept of a commons used in the social and environmental policy literature (see Ostrom 2015 [1990]). The aim in this section is to conceptualise scholarly commons in a way that is consistent with the theoretical understanding of the term ‘commons’ across disciplines. It is notable that many authors who write about scholarly commons do not have a rigorous definition of the term, and use it in a rather loose sense.²⁶⁷ Also relevant to this point is a definition of ‘scholarly’. (See Chapter 2 for a discussion of what ‘counts’ as scholarship, though a fairly limited content-focused definition is used there.) The *process* of doing scholarship is of central importance and perhaps it is not possible to disentangle it from the end product; in other words, scholarship requires an ‘appropriate social engagement with one’s material and one’s colleagues’ (Hyland 2000: 11). The combination of both resources, and the actions of the community that creates and maintains a resource, is at the heart of understanding what a commons is. Therefore a content-focused definition of scholarship is not sufficient for conceptualising a scholarly commons (see also Moore 2018).

Although research libraries hosting print publications have been described as

266 A lack of restrictions in terms of *who* is allowed to access the resource; there may be other restrictions put in place through licensing arrangements.

267 For example, Kranich (2011) or Morrison (2015).

an example of a commons (Kranich 2011: 85), the historical analysis given in Chapter 3 does not support this view. Libraries that are part of academic institutions are not a commons in the sense of being a common-pool resource that is governed by its members. For instance, a typical library in a contemporary UK university is run by trained professionals with little direct involvement from students or academic staff. The focus in this chapter, however, is on digital research publications.²⁶⁸ Existing open access initiatives – journals and repositories – have also been seen as commons (Bollier 2011a: 37; Suber 2011: 179). Bollier expands on this view to include ‘the behaviour of scientific communities as they generate and disseminate their research’ as part of a scholarly commons (Bollier 2011a: 27). In this section, the commons is explored as a means of creating a scholarly communication environment which expands access to knowledge and works with principles of openness, but avoids the neoliberal trappings of existing open access policy in the UK. As such, commons thinking is a way to take open access beyond the ‘openness’ of open licenses, and to bring considerations of participation, membership, and community to the forefront of a commons-based conception of open access. This perspective is in line with the work of Hess and Ostrom, who claim that ‘Understanding information as a commons draws attention to the need for *collective action*, *self-governance*, and *evolving rules* that are required for the successful management and sustainability of all shared resources’ (Hess and Ostrom 2004: 2, emphasis in original).

To understand what models of community governance might be possible for open scholarship requires interrogating what the scholarly ‘community’ is. Communities are defined by who is included or excluded as a member; they have edges and boundaries, however porous these may be. Open scholarship aims to expand or relax the boundaries to increase levels of inclusiveness. However, there may be a limit to the extent that this increase can occur; perhaps scholarship must remain a ‘club’ (Potts et al. 2017) because a community needs to have some sense of shared values, norms, and practices in order for it to make sense to regard it as a community. In Ostrom’s analysis of common-pool resource governance, successful communities all retained a consistent population size over time (Ostrom 2015

268 See Lougee (2011) for an exploration of possible future roles for libraries in the transition towards a digital commons.

[1990]: 88). The scholarly community,²⁶⁹ if it is defined as the number of active researchers or academics, has been continually increasing for some time (see Chapter 2) and one of the aims of the open scholarship movement is to increase participation even further. However, the issue of delineating community boundaries is particularly important for determining who has rights to use a resource, which may not be a relevant issue for an open information commons (although this point is returned to below regarding non-Western knowledges). But even so, the issue remains whether boundaries must be set with regards to who contributes to the construction and maintenance of the commons, to determine the necessary ‘provision rules requiring labor, material, and/or money’ (Ostrom 2015 [1990]: 90) that are required.

So, as with many issues within academia and scholarship, questions around the organisation of labour need to be raised. And this issue is related to the hiring and promotion practices within academic institutions, which in Chapter 2 were shown to be intimately tied to academia’s prestige economy. In the previous section, digital information resources were understood to be not subtractable because they can be infinitely copied with zero or near-zero depletion, thus overcoming the problem of scarcity. In order to extract profits from providing such resources, therefore, publishers of digital content must artificially create scarcity, and for academic publishers the way to do this is through creating paywalls, requiring payment for accessing a resource that would otherwise be abundant. However, abundance of digital content does not necessarily reduce the scarcity of labour needed to produce said content (Eve 2017b; see also Muellerleile 2017). Recognition of labour needs complicates the somewhat utopian tone of some commons activists, such as Bollier (2010), who has spoken of academia as a ‘gift economy’ without properly engaging with the wage-labour relations that, in a capitalist society, are a prerequisite for the production of these ‘gifts’. Because of this omission, Neary and Winn (2012: 409) have argued that ‘an acknowledgement of the underpinning material basis for the production of the commons is avoided’, resulting in an incomplete understanding of the economic relations required for commons production. Speaking about open education specifically, they go on to say that: ‘While Open Education attempts to

269 It may be more useful to think of multiple scholarly *communities*, as scholarly disciplines tend to have distinct cultures, and disciplinary allegiances can be stronger than institutional ones (Becher and Trowler 2001).

liberate intellectual work from the constraints of intellectual property law, it does little to liberate the intellectual worker from the constraints of the academic labour process and the reality of private property' (Neary and Winn 2012: 409). For this reason, the more progressive open access initiatives that are currently underway – as discussed in the next section – explicitly acknowledge the problem of labour.

The current reality of wage relations and employment requirements explains why Potts et al. (2017) have argued that scholarly texts – and academic journals in particular – are neither public goods or commons good, but rather are club goods.²⁷⁰ In reference to Buchanan (1965) and to Ostrom and Ostrom's (1977) classification of type of goods, Potts et al. describe club goods as those which are non-rivalrous but excludable. As Neylon puts it in a related paper, club goods are 'non-rivalrous (they can be shared out without diminishing them) but are excludable (it is easy to prevent non-group members from benefiting from them)',²⁷¹ and club members tend to only give up such goods if they get something in return; in this case, either abstract goods like recognition and prestige, or rewards that are 'much more concrete; jobs, professional advancement, and funding' (Neylon 2017a: 11–12). The word 'club' implies fairly tight boundaries, which appears antithetical to the openness desired by many open access advocates. So while this description of scholarly journals as club goods may be a good analysis of the form that they presently take, it does not mean that scholarly texts *should* be restricted to 'club' members. However, the analyses offered by Potts et al. and Neylon do serve to highlight two important points. First, universities as institutions are designed to be resistant to change, so cultural resistance to new publications practices should be expected. Second, if the economic structure of scholarly texts is currently that of a club good, then any strategies intending to alter this structure – whether towards a commons or otherwise – will be more effective if they acknowledge that starting point. This insight has implications for designing policy or promoting specific forms of collective action aiming to increase the openness of scholarship. If the primary difference between a club good and a commons good is whether the community

270 See Bacevic and Muellerleile (2017) on the terminological slippages between 'public good' in the economic and moral senses, and the implications for discussions of academic labour.

271 As mentioned above, the excludability of digital resources is created by adding barriers such as paywalls to impose artificial scarcity. Alternatively, if there are no barriers to access, then a digital resource is both non-rivalrous and non-excludable, and therefore can be viewed as a common-pool resource.

chooses to enforce barriers to access, then a progressive approach to open scholarly publishing (i.e. one with social justice at its heart) should resist the conservative position that a journal is a club *and should remain a club* – with its concomitant ‘exclusion technologies’ (Potts et al. 2017), whether technological, social, or cultural – and instead focus on removing barriers to access and participation.²⁷²

Ostrom showed that effective governance structures are critical for long-enduring commons (Ostrom 2015 [1990]). As Hess and Ostrom argue, ‘any type of commons must involve the rules, decisions, and behaviours people make in groups in relation to their shared resource’ (Hess and Ostrom 2011: 10). For a scholarly commons, this includes understanding the incentives that lay behind publication decisions and their root in hiring and promotion mechanisms (see Chapter 2). Bringing incentives into the picture is not straightforward because different stakeholders have diverse interests, which makes designing institutions more complex (Hess and Ostrom 2011: 44). For academic authors, a major incentive for behaviour is the hiring and promotion practices of the institutions that employ them, which is itself caused by the economic necessity of earning a wage in the first place. Open access has not yet become a common requirement of hiring and promotion (Alperin et al. 2018; Odell, Coates, and Palmer 2016; Schol Comm Lab 2018); one Europe-wide survey reports that of institutions with an open access policy, only around 12% had a mandate that researchers deposit publications in a repository as a requirement ‘linked to internal performance evaluation’ (Morais and Borrell-Damian 2018: 7). On the other hand, the long-standing pressure to publish in particular (usually closed-access) journals is still very real (Nicholas et al. 2017; see also Chapter 2). It is not surprising that such incentives change very slowly, because the costs of changing institutional rules can be considerable; the situational variables affecting cost-benefit analyses may be numerous and intersect in complex ways, and those making the judgements about whether to keep or change the rules may not have complete information on which to base their decisions (Ostrom 2015 [1990]: 195–205, 210). Thus for open access supporters who wish to break out of the path

272 To link this back to the discussion in Chapter 2 of academia’s prestige economy, the boundaries of a journal ‘club’ are linked to perceptions of quality. If work published in a particular journal is regarded as higher quality and thus there are career benefits for those who publish in that journal, it is in the self-interest of successful authors to police the boundary and position themselves as ‘club members’ who deserve to be regarded as producers of high-quality work. In the context of this chapter, such a position is more aligned with a neoliberal view of human capital than the collegiate, collective view offered by a perspective grounded in the commons.

dependence currently in place, there are considerable barriers to overcome.

The collective action problem pertaining to natural common-pool resources is one of regulating the actions of those who use an already-existing resource, to ensure its continued viability. The collective action problem faced with regards to the scholarly commons, on the other hand, is that of how to act in order to create a commons in the first place, as well as subsequently maintaining it (see Wenzler 2017). Fundamentally, the collective action problem for a knowledge commons is about determining the contribution of labour by all stakeholders that is necessary to construct and/or maintain the commons. Therefore in terms of funding, a scholarly commons requires a pivot from the current situation, in which most of the funding actors pay for commodity goods for their own private use (i.e. institutional journal subscriptions), to a situation in which the infrastructure of the commons is collectively funded by those same actors. The numerous challenges in designing and implementing such a transition, from designing effective incentives to determining sanctions for non-compliance, have so far prevented any large-scale ‘flip’ to an open access model as envisioned by the OA2020 project, whereby large portions of the subscription literature are converted to open access en masse (EU2016 2016; see also Lewis 2017a; Schimmer, Geschuhn, and Vogler 2015; Smith et al. 2016).²⁷³ A successful commons requires self-governance, which in turn requires the existence of institutions that allow the commons to occur and enable its success. This is why the fact that higher education institutions have been reconstituted as *neoliberal* institutions (see Chapter 6) is so important when considering the viability of a scholarly commons – without the support of the institutions that nurture and fund scholarly research, collective action becomes seemingly impossible. By implication, self-governance also requires the existence of actors who wish to self-govern; a move towards open scholarly commons will not happen without sufficient will among the academic community. The following depiction of current work regarding higher education co-operatives shows that this will does exist to some extent and may have the potential to grow.

In opposition to a neoliberalised higher education, some academics and activists have been working to create alternative educational institutions founded on co-operative principles (Cook 2013, Hall and Winn 2017, Neary and Winn 2012,

273 The OA2020 model is constructed along market lines and does not see itself as a commons-based approach.

Members of the Social Science Centre Lincoln 2017). Co-operation is a core part of the logic of the commons, as opposed to *competition* in the logic of markets (Helfrich 2012: 36). Therefore co-operatives, as institutions with co-operation as the founding principle, are uniquely suited to governing commons. (To be clear, there is a difference between governing a commons and governing as a co-operative; for instance, a co-operative can operate to produce private goods for sale in a market.²⁷⁴) For this reason it is important to consider the potential opportunities of co-operative higher education and the role that cooperatives could play in governing a scholarly commons. The organisational form of a co-operative is one of ‘common ownership’, so if higher education was delivered through co-operative universities, it could form ‘an academic commons, democratically controlled by academic and support staff, students and others’ (Hall and Winn 2017a: 13).²⁷⁵ In such an environment, policy, including open access policy, would be generated in a more collaborate way with the people directly affected by it, in contrast to the top-down approach currently seen whereby policies from UKRI appear to be imposed with little consultation. An example of a co-operative higher education institution is the Social Science Centre Lincoln. Founded in 2011 as a direct response to ‘an increasing instrumentalisation of higher education’ (Social Science Centre Lincoln 2017), the centre is an independent institution governed by its members:

it is run democratically by its members, with each having an equal voice in the governance and management of the Centre as well as the content of the courses and the ways in which they are delivered. Members of the Centre are referred to as ‘scholars’, not teachers and students, to reflect the important sense of equality and democracy that underpins the way in which the governance of the Centre works. This joint production of

274 An example of this in the UK is the John Lewis Partnership, which is a workers’ co-operative that is a retail company selling commodities in the market. So cooperatives can be for-profit market institutions and do not necessarily transcend capitalism: ‘even though the cooperative form departs from the traditional rules of capital, it still remains essentially private in nature, which leads to frequent capitalist drifts when the cooperative is successful [...] While realising the construction of commons is a co-activity between a number of stakeholders managing a resource, cooperative ownership remains private in nature’ (Borrits 2016).

275 In a way, this notion recalls the origins of European universities in the medieval period (see Chapter 3, note 55), when the universities of Bologna, Paris, and Oxford were originally formed by communities of scholars (students and teachers), though they were initially rather loosely-organised and teachers’ salaries were paid directly by individual student fees (Pedersen 1997).

teaching and research is energised through a commitment to popular education and critical pedagogy – very different to the more rigid models of learning that underpin mainstream providers.

The Centre is currently very small and does not offer validated degrees, though it is actively exploring ways to progress on both of these points, including possibilities for creating new co-operative higher education institutions that actually arise from the new legislative framework in the UK (Ibid.; Neary and Winn 2018; Winn 2016). By its very existence, the Social Science Centre demonstrates the possibility for an alternative approach to higher education. However, it remains to be seen whether it can be successfully scaled up to challenge the dominance of mainstream marketised higher education.

As mentioned above, co-operatives and commons-based institutions are not inherently anti-capitalist institutional forms. Supporters of the commons sometimes talk about it as though it is something which must remain indivisible, and could or should not be exploited for profit (for instance, Bollier 2004: 5–6). This is a misunderstanding of what a commons is. The defining feature of a digital information commons is that it can be used by anyone, without limits on who uses it or the extent to which they use it (other than through minimal license restrictions).²⁷⁶ So if a commons exists in a capitalist society, it can potentially be used for commercial gain. The only ways to prevent this from happening are either to introduce legal restrictions on use through licensing, which may affect whether the resource can truly be called a commons, or for the commons to exist in a non-capitalist society, which is not an option in the short term. Therefore a commons explicitly allows capitalist exploitation (see Bollier 2011a: 38). On the other hand, ‘to talk about the commons is to say that citizens (or user communities) are the primary stakeholders, over and above investors, and that these community interests are not necessarily for sale’ (Bollier 2011a: 30). To regard communities as stakeholders is a useful way of understanding their relationship to the resource. In scholarly communications, publishers frequently assert their right to be included in decision-making as stakeholders.²⁷⁷ Of course, even if that argument is accepted, it

²⁷⁶ Once again, the question of licensing is vital here, because some licenses *do* place restrictions on certain uses, which can lead to arguments about degrees of openness, e.g. CC BY-SA being considered more appropriate than CC BY-NC – is it no longer a commons if CC BY-NC is used?

²⁷⁷ For example, several of the speakers representing publishers at an event about open access policy

does not mean that publishers are *equal* stakeholders with equal ownership claims over scholarly resources. Different stakeholders – or different communities with an interest in a particular commons – may have different relationships to that commons, and the rules that govern the commons may therefore treat those communities differently. This is a reflection of the fact that ‘cultural commons are also nested within and interact with more complex systems of natural and socially constructed environments’ (Madison, Frischmann, and Strandburg 2010), so the economic structure of the society in which a commons exists must be taken into account when considering the relations between different stakeholders. Similarly, the power relations between different communities involved in scholarship need to be taken into account, as the following example makes clear.

The most thorough investigation into the notion of scholarly commons thus far is the work of the FORCE11 Scholarly Commons Working Group (Bosman et al. 2017; Champieux et al. 2016; FORCE11 Scholarly Commons Working Group 2017; Kramer et al. 2016).²⁷⁸ FORCE11 is a community initiative that grew out of the ‘Beyond the PDF’ conference and the FORC (Future of Research Communications) Workshop in Dagstuhl, Germany – both held in 2011 – which aims ‘to bring about a change in modern scholarly communications through the effective use of information technology’ (FORCE11 [n.d.]).²⁷⁹ Discussions at the Force15 conference led to the formation of the Scholarly Commons Working Group (SCWG) which first held a workshop in Madrid in February 2016, with invited stakeholders ‘from across the ecosystem of scholarly production and consumption’ who were asked to imagine an ideal scholarly communication system free of ‘the restraints of the current system’:

the initiative is designed to both define and promote a set of high level principles and practical guidelines for a 21st century scholarly communications ecosystem—the Scholarly Commons [...] we are working to define the best practices, interfaces, and standards that should govern the multidirectional flow of scholarly objects through all phases of the research

organised by Westminster Higher Education Forum (2018) spoke of themselves as stakeholders in policy decisions.

278 The official websites of the group can be found at FORCE11 ([n.d.]a) and FORCE11 ([n.d.]b).

279 For more on the reasoning behind FORCE11, see the original Force11 Manifesto (FORCE11 2011) that was written following the first conference.

process

(Champieux et al. 2016)

One obvious problem with the approach taken by the SCWG in the beginning was that most participants were from privileged institutions in the global North, leading to an ‘enormous gap between the ideal of the commons and the reality that many Southern researchers experience’ (Murugesan 2017). Steps have subsequently been taken to remedy this (Bosman et al. 2017: 9–10; Inefuku 2017), though see Hudson (2017) on the limitations of ‘diversity and inclusion’ as a social justice strategy and Hathcock (2016) on the failures of the SCWG to truly de-centre an insular global North perspective. The principles that were drafted during the Madrid workshop²⁸⁰ therefore reflected a limited range of perspectives. For instance, Principle 2 of the *Principles of the Scholarly Commons* states that ‘Research and knowledge should be freely available to all who wish to use or reuse it’, which means that ‘the commons is open by default’ (FORCE11 Scholarly Commons Working Group 2017). As discussed in the following section, this principle is in conflict with the right of a community to self-determine how its knowledge is used. For the SCWG to say that ‘everyone agreed that the Commons was for everyone’ (Kramer et al. 2016: 23) shows that some voices are missing from the conversation (see also Chuen 2016). Overall, however, the principles are reasonably consistent with the notion of commons as understood in this thesis; equitable, open, sustainable, and research and culture driven:

We view the Commons as a set of practices governing the production, flow, and dissemination of scholarship and research to facilitate access by all who need or want this information, in both human and machine readable forms, so it can be put to use for the good of society.

(Champieux et al. 2016)

The description of a scholarly commons in a later document aligns extremely closely with the work of Ostrom: ‘a set of principles and rules for the community of researchers and other stakeholders to ascribe to, the practices based on those

280 See FORCE11 Scholarly Commons Working Group (2017) for an updated version of these principles.

principles, and the common pool of resources around which the principles and practices revolve' (Bosman et al. 2017: 1, 4). There are, however, at least two vital differences – the erasure of plurality, and the lack of self-governance. For the SCWG, the discussion is about *the* scholarly commons – it envisages a single global pool of scholarly knowledge. They use the term 'scholarly commons' to refer to the scholarly communication ecosystem as a whole (Kramer et al. 2016: 27).²⁸¹ The design question regarding whether scholarly commons should be regarded as singular or plural is discussed at length in the following section. It is notable however, the SCWG are not trying to be prescriptive as to how the principles are implemented: 'In our view, the principles do not describe what the Scholarly Commons should look like or how it should be organized. They do define the minimal conditions that practices and participants in the Scholarly Commons should meet. [...] The actual implementation of the Scholarly Commons (whether that is by use of existing systems and platforms, or the creation of one or more new platforms, including decisions on how to govern these) is beyond the scope of the principles themselves. The principles are aimed to provide guidance on the conditions that should be met in the use, development and governance of systems or platforms' (Martone 2016). Still, the overall impetus behind the SCWG activities appears to have a neocolonial tinge (Hathcock 2016); the aim is to actively shape the way that scholarly communication is developed, and given the membership of the steering group and the source of the funding for the project (a charitable trust – The Leona M. and Harry B. Helmsley Charitable Trust – which is beholden only to the trustees appointed to fulfil the wishes of its wealthy founder), it is questionable whether any other outcome can be achieved. One of Ostrom's primary insights into successful commons is that they require *self-governance* – the active participation of the local community in decisions concerning governance: 'successful commons governance requires an active community and rules that continue to evolve [...] commons are more robust when users have some autonomy to make and enforce their own rules' (Hess and Ostrom 2004: 8). The charitable analysis of the SCWG's aims is that, much like Ostrom, they are trying to identify attributes of successful commons, in order to guide decision-makers in constructing effective commons-based initiatives.

281 To the extent to which they recognise the heterogeneous nature of the scholarly communication ecosystem (e.g. Bosman et al. 2017: 16), it is only as a transitional stage towards a 'maximal' commons that fits their principles.

However, the notion that the SCWG can derive such universal principles for commons governance from the blue-sky thinking of a relatively small group of insiders,²⁸² rather than the painstaking analysis of actually-existing commons such as Ostrom and her colleagues pieced together over a significant period of time, is highly questionable. As a result of this critical analysis of the SCWG project, the next and final section will centre a postcolonial perspective in its exploration of potential avenues for working towards commons-based open access policy.

Towards an ecology of scholarly commons

The final section of this chapter will attempt to bring together the insights gained thus far about scholarly commons, particularly concerning the potentially local and plural nature of commons, with an analysis of open access policy. By doing so, a way forward towards a more progressive commons-based open access policy can be glimpsed. First, a postcolonial critique of scholarly communication provides support for an approach to open access that encourages diverse publishing practices, shifting emphasis away from the traditional models that have served to reinforce the epistemological hegemony of the global North. Secondly, the rationale for a plurality of scholarly commons – imagining an ecosystem rather than a monolithic entity – will be advanced further. Finally, the chapter will conclude by highlighting some existing commons-based open access projects and considering the implications of the account given in this chapter for open access policy. In light of the analysis of neoliberalism in Chapter 5, which highlighted its role as a globalising force that denies legitimacy to local and indigenous cultural and economic practices that do not fit into its framework,²⁸³ the main argument in this section is that a programme of resistance to neoliberalism should counter it by explicitly acknowledging and advocating for these multiple knowledges to be afforded a place.

The most important reason for advocating for a plurality of scholarly commons is to acknowledge that there are different ways of knowing, including to ‘recognize

282 It appears that this approach is based on similar practices used by an earlier FORCE11 group on data citation (see Neylon 2018a). However, the existence of a scholarly commons is an entirely different question, and it is not clear that the same methods can be successfully applied to this case.

283 Though Chapter 5 also shows the ability of neoliberal ideology to adapt to local conditions, thus viewing it as a ‘totalising’ force can obscure the incorporation of neoliberalism into different local political circumstances.

the persistence of Indigenous epistemologies’ (Dhamoon 2015; see also De Sousa Santos 2008, 2014). This point is vital for those involved with open access to understand – as long-time open access advocate Leslie Chan says, it is important to remember that ‘knowledge is being produced *everywhere* and that there are unique traditions of knowing from around the world’ (Okune, Hillyer, and Chan 2017). For this reason, it is necessary to critique the ‘totalising’ nature of some advocates’ conceptions of the information commons. It is not appropriate to think about a single, undifferentiated commons of which all knowledge is a part.²⁸⁴ There are numerous different communities, in different places at different times, that have different epistemologies. As Bijker argues, “‘knowledge commons’ is the common sharing of a variety of knowledges. This interpretation builds on the recognition that a plurality of knowledge systems exists’ (Bijker 2011: 1). If we accept that knowledge is ‘socially rooted’, then ‘since there is a plurality of contexts, knowledge must be plural too’ (Ibid., p. 2; see also Collins 2010; Connell 2007). This is why Busch calls for us to build an “‘*ecology of knowledge*” in which technoscientific knowledge is one form of knowledge among many’, alongside ‘local knowledge about how everyday worlds are constructed, cultural knowledge about how to act in the world, moral knowledge about what is the right thing to do’ (Busch 2017: 119). It would be unethical to assume that all of these various kinds of knowledge may be absorbed into a single commons – especially one conceptualised and designed by theorists from the global North. This is not to say that the idea of a scholarly commons should be abandoned, but rather, considerable care should be taken with regards to its construction and the setting of boundaries. It is important to remember that the idea of a commons was originally based on *particular* natural common-pool resources, utilised by defined communities in a particular place and time. If the same approach is applied to information commons, then the starting point of conceptualising such commons must occur at an appropriate level of granularity.

One way to consider appropriate ways of treating indigenous knowledge is made clear in the use of biological and genetic resources. Critics in the global South have highlighted the exploitative nature of the use of these resources (Kaniki and

284 Some advocates of the scholarly commons such as Lewis (2017a) think only in terms of making the current forms of Western scholarship more widely available, and think that the *kind* of scholarly commons that should be built is a settled issue. See also Levine (2011: 263–65) for a more nuanced discussion about local commons.

Mphahlele 2002), with researchers and corporations from the global North treating them as part of our shared collective heritage and so using them for free, but then aggressively patenting the results of their scientific work that transforms the resources into commodity goods (see Mudiwa 2002). As Oksanen (1998: 2) states, there is a debate as to ‘whether the right way to protect their [indigenous peoples’ and local communities’] interests is to implement a system of intellectual property rights or whether we need entirely different institutional arrangements and sets of norms’. There is a danger that a ‘free culture’ approach would allow and facilitate exploitation:

Many people think that it is morally unfair to regard indigenous cultural achievements – or the biological wealth in the third world countries in general – as belonging to the common heritage of humankind. This is so because then they would be vulnerable to the greater economic and political power of the rest of humankind: multinational corporations and western universities seek functional genetic substances which they could modify and for which they could apply for a patent.

(Oksanen 1998: 4)

One approach to protect against this kind of exploitation would be to bring traditional ecological knowledge into the realm of intellectual property rights, rather than treating it as part of a global commons. However, Macmillan has argued that for the rights of indigenous peoples, ‘the idea of turning cultural heritage into intellectual property may not be optimal. One result of such a process is that the cultural property has to be corralled into the shape of Western intellectual property law [...] the end result is that occidental intellectual property law comes to constitute indigenous (and other non-Western) cultural heritage’ (Macmillan 2017: 5; see also Younging 2015). Rather than conforming to the time-limited – and transferable – monopoly rights of patents and copyright, or leaving things to the ungoverned space of the public domain, alternative arrangements could take the form of managing resources as a local commons – with usage rights being determined by the local community, so that indigenous knowledge is governed as a ‘community-owned cultural property’ (Macmillan 2017: 7). Macmillan draws on the stewardship model of property developed by Carpenter, Katyal, and Riley (2009), ‘which specifically

aims to vindicate the cultural property claims of indigenous peoples, seeks to find a liberatory use of the property paradigm that transcends its current narrow legal focus on private rights’ (Macmillan 2017: 8). Indigenous knowledge is often intergenerational and shared among community members through oral and practical means rather than written; ‘indigenous knowledge is typically embedded in the cumulative experience and teachings of indigenous peoples rather than in a library’ (Battiste 2002; see also Mundy and Compton 1991, Younging 2015: 153–55). Stewardship – a duty of care towards knowledge resources over long periods of time – is an integral component of this way of sharing knowledge. Although the legal architecture required for community rights²⁸⁵ to stewardship of intangible resources does not exist in a well-established form, there *is* a long-standing tradition of commons governance practices for natural commons, which, as this chapter has made clear, can to some degree apply to knowledge commons. So in combination with open licenses (even though these mean conforming to Western notions of intellectual property),²⁸⁶ these commons governance practices may go a significant way towards fulfilling the stewardship role. However, there are some instances when open access to resources cannot ethically occur, such as with archives of indigenous cultural materials that contain sacred components (Chuen 2018). As Williams argues, ‘for many Indigenous materials, the idea of public access is not appropriate. A settler applying an open license to an Indigenous cultural product should not decide that this product now belongs to the commons’ (paraphrased by Chuen 2018; see also Christen 2012; Flor 2013).

With regards to research and scholarship, there is a power imbalance between the richest nations of the global North, who undertake the majority of the world’s research and development and produce the vast majority of research publications,²⁸⁷ and those in the global South who need access to this research and also need to be

285 The distinction between community rights and private rights is key – private rights are held by persons, including corporate forms that are legally imbued with personhood. A community is not defined in law in such a distinct way. Mudiwa (2002: xvii–xviii) has even proposed that communities form jointly-owned companies to ‘own’ traditional knowledge as a way to engage with the international intellectual property regime.

286 For protection from exploitation, relatively restrictive licenses such as CC BY-NC-ND may be more appropriate than CC BY in some circumstances. Indeed, Becerril-García and Aguado-López (2018: 9) have argued that ‘the use of Creative Commons BY-NC (Non-Commercial Attribution) licenses, and desirable SA (Share Alike), are fundamental protection strategies, which are aimed at not allowing the appropriation of scientific knowledge for profit.’

287 Although, as mentioned in Chapter 2, some nations (China in particular) are quickly gaining ground in terms of the amount of research conducted there.

recognised as producers of knowledge themselves (Chan and Costa 2004: 3).²⁸⁸ As discussed in the introduction, one of the starting points of this thesis was to explore the extent to which open access contributes to social justice by addressing this power imbalance. And as argued in Chapter 7, the approach to open access pursued through the UK's open access policies risks entrenching this power imbalance rather than countering it, because of the financial burdens of the APC funding model. Indeed, demanding payment for APCs has been described as a form of 'neocolonialism' (Beasley 2016: 127; Mboa 2017; Piron 2018). While this may be an unintended consequence of the UK's policies, even some of the initiatives with explicit aims to support researchers in the global South also fail to do justice to the needs of Southern research communities. For instance, the attempt to close the North-South knowledge gap by the Research4Life schemes such as HINARI and AGORA (developed by the World Health Organisation and the United Nations Food and Agriculture Organization respectively), which provide access to some subscription journals to institutions based in low-income countries, may reduce 'the sense of professional isolation felt by many researchers in developing countries' (Chan and Costa 2004: 6). However, Albornoz (2017a) claims that Research4Life is part of a discredited development model that does not address how the lack of visibility for Southern research 'is a result of a history of colonialism and process of modernization in which Southern knowledge has been intentionally discredited, erased and marginalized in order to situate Northern knowledge and the Western experience as the only path to progress and development'. Furthermore, this approach only addresses the gap in access to research outputs²⁸⁹ and not in terms of participation in knowledge production.²⁹⁰ Researchers in the global South are forced to compete for publication in 'international' journals with prestige in the global North, and even to cite Northern research above more relevant local research in order to have their work taken seriously (Murugesan 2017; Vessuri, Guédon, and

288 The page numbers in references to this article refer to the preprint available from the E-LIS subject repository at <http://eprints.rclis.org/5666/>.

289 Much could also be written about the limitations and negative consequences of the philanthropic (or 'philanthrocapitalist') model of development (see McGoey 2015); as Chan and Costa (2004: 11) write, 'instead of promoting sustainable development in science through local capacity building differential fee programs [such as implemented by HINARI and AGORA] promote dependency on foreign aid and charitable subsidies'. Similar critiques have been made regarding the 'solutionism' of some open education advocacy (see Knox 2013: 25).

290 As Inefuku and Roh (2016: 12) state, focusing on the politics of access should not be done at the expense of critiquing the politics of knowledge production.

Cetto 2014; Waal 2016). Thus for open access policies and practices to genuinely dismantle or subvert the dominant epistemologies of Northern academia, they must go beyond simply increasing access to Northern publications:

While North-to-South flow of research is valuable to the South in terms of up-to-date scientific development, South-to-South flow of knowledge is equally important. [...] Unless efforts are made to include locally published journals into the international database, researchers in both the developed and the developing worlds will not get a true global picture of the phenomenon they study and researchers in the South will continue to be dependent on a North-biased approach to solving problems.

(Chan and Costa 2004: 9)

However, the imperative to ‘include locally published journals into the international database’ also has its limitations. For instance, Web of Science, the most ‘prestigious’ citation index that is used to rank journals and generate Impact Factors, introduced a new index in 2015 called the Emerging Sources Citation Index (ESCI) which includes more global South journals in languages other than English. Notably, these journals are listed separately from the main index and not given an Impact Factor. As Bell (2018: 31) has argued, ‘given the ways it distances itself from the quality of the “emerging” journals it indexes, ESCI perpetuates a value system that continues to separate the “best” (the “west”) from the rest’, and so ‘various Global Southern scholars are sceptical of ESCI’s stated capacity to raise the profile of the “global body of science” emanating from outside the Global North (e.g., Somoza-Fernández, Rodríguez-Gairín & Urbano 2018)’. Furthermore, there are already long-standing scholarly communication initiatives originating from within the global South which have achieved success in facilitating South-to-South knowledge transfer, notably the SciELO (Scientific Electronic Library Online) and Redalyc (Red de Revistas Científicas de América Latina y El Caribe, España y Portugal) projects in Latin America. SciELO indexes, aggregates, and provides access to open access journals, most of which are ‘independently managed either by scientific societies or academic institutions’ (Packer and Meneghini 2014: 15). It was originally founded in Brazil in 1997 and now features journal collections from 13 countries across Latin America as well as Spain, Portugal, and South Africa (Alperin

2014: 27; Packer 2009: 113). Over time, SciELO ‘became an integral component of the research infrastructure of most of the countries where it operates. The governance, management and funding of the SciELO national collections are led by research agencies in most of the countries’ (Packer and Meneghini 2014: 18). Redalyc is also an indexing and publishing platform, founded in Mexico in 2003 (Alperin 2014: 30–31; Redalyc 2017). Between them, SciELO and Redalyc currently host around 2,500 open access journals, with APCs being a rarity in the region – as Becerril-García and Aguado-López (2018: 1) state, in Latin America ‘neither a fee for authors nor a fee for readers had been included in the regional editorial tradition’. The success of SciELO and Redalyc shows that institutions from the global South can advance a progressive scholarly communication agenda without first needing to fully assimilate into the dominant scholarly communication system of for-profit publishers of English-language journals.

An example of the difficulties that publishers situated in the global South face in being recognised as legitimate is the controversy around so-called ‘predatory publishing’. This phrase refers to ‘conditions under which gold open access academic publishers claim to conduct peer review and charge for their publishing services but do not, in fact, actually perform such reviews’ (Eve and Priego 2017). The term was coined and popularised by the US librarian Jeffrey Beall, who until 2017 maintained a blacklist of journal publishers (‘Beall’s list’) that he personally decided were ‘predatory’. As the list gained in notoriety among people trying to avoid being caught out by ‘illegitimate’ journals, the consequences of being added to the list could be devastating for genuine publishers that were added to the list by the unaccountable Beall.²⁹¹ As Regier (2018) documents, after Nigeria-based publisher Academic Journals was added to Beall’s list, its income dropped so dramatically that it was forced to make redundant over a hundred employees. Regier argues that blacklists such as Beall’s list reflect the ‘institutionalized racism of scholarly publishing’, because they ‘over-represent minority populations and encourage widespread discrimination against these populations’ (Ibid.). As such, Raju (2018) has called for the term ‘predatory publishing’ to be abandoned, stating that ‘as a person coming from the global south and being an open access advocate, I believe that the concept should be erased with the contempt that it deserves’.

291 Beall has made questionable remarks that indicate that the racism embodied in his list may reflect his personal right-wing political views (Bivens-Tatum 2014; SciELO 2015).

To further situate this analysis of scholarly commons within a global perspective, an understanding of open practices in a historical colonial context is necessary (Nobes 2017). Therefore it is worth quoting at length from an article about the work of the Open and Collaborative Science in Development Network (OCSDNet), a group of twelve researcher-practitioner teams from the Global South:

In conducting our research, our team considered how our research was situated and informed by the colonial pasts and legacies of colonial science in South Africa. In particular, we took into account how concepts of science such as “open science” and nature as “freely accessible” have historically been used to exploit countries such as South Africa and their indigenous peoples. We understood open science norms of disclosure and sharing as historically contingent, recognizing how practices of colonial science shaped and were shaped by such norms. Dutch and British colonial scientists traveling to South Africa beginning in the seventeenth century were influenced by and contributed to an emerging shift in the practice of science that encouraged scientists to publically share and disseminate their new knowledge, rather than keep it secret. Meant to support the growth of technological innovation, this epistemological transformation from secrecy to disclosure contributed both to the rise of modern science and European colonial power. Scientific commitments to openness and sharing were misused to justify the exploitation of Indigenous San and Khoi peoples’ lands, bodies, and knowledge(s). European colonial scientists treated the lands, animals, and plants they found as in the public domain, thus available for taking and transporting to Western Europe. In encountering and learning from Indigenous San and Khoi peoples about the natural world of South African lands, colonial scientists regarded San and Khoi knowledge as freely shared information that could be scientifically validated, disclosed, and published to support the production of knowledge about nature and the development of technological innovations. Through these practices of colonial science, colonial scientists reinforced regimes of expertise and hierarchies of knowledge production that positioned Indigenous peoples as suppliers of raw material, rather than producers of knowledge. In considering these colonial pasts, we could begin to understand how their legacies

continue to shape practices of science today, including our own research.

(Traynor and Foster 2017)

In this passage, the links between the long history of colonial exploitation and contemporary open movements emerge. Chapter 3 explored how public libraries acted as a tool of exploitation in the colonial era. Open access, and open scholarship more broadly, may simply continue the history of colonizing indigenous knowledge. The current state of open access policy in the UK, as analysed in the previous chapter, does not acknowledge or engage with this critique. But listening to critical voices from the global South is essential for those making and implementing policy in the UK if a neo-colonialist entrenchment of existing power imbalances is to be avoided. As Albornoz (2017) has claimed, ‘When we ask *who is being left out of the Open Science agenda?* we are interrogating power, inequality and the barriers that prevent actors from having an influence over decisions that affect them’. Similar questions could be asked around gender, with men often being overrepresented in scholarly communication discussions (Hayes and Kelly 2017). Of course, a critique of open access and open scholarship as perpetuating inequalities does not imply that this is the intention. However, as Macmillan Cottom points out, ‘perpetuating the inequalities resulting from intergenerational cumulative disadvantage doesn’t require intent’ (Macmillan Cottom 2017: 187). It is therefore incumbent on those in a position of privilege to actively dismantle the structures that continue to maintain that privilege.

Being aware of the geopolitical context within which scholarship occurs could lead to greater understanding the limitations of openness. The OCSDnet Open Science Manifesto (2017) calls for a ‘situated openness’ that addresses ‘the ways in which *context, power and inequality* condition scientific research’. In a similar vein, Morsi (2016) refers to ‘context-sensitive openness’:

‘Openness’ assumes equal access and opportunity; but not all cultures may feel that it is an appropriate concept, in a localised context. In order to conduct and promote ethical, ‘open’ research, there is a need to critically consider the local, cultural connotations around constructions of openness.

As such, when considering the construction of scholarly commons, so-called

‘universal’ conceptions of openness or commons should not be imposed upon communities that see things differently. Placing a postcolonial critique at the centre of any vision of an alternative scholarly communication system is essential.

So far, this section has considered the importance of plurality of knowledge, especially with regards to knowledges – whether ‘scholarly’ or otherwise – of people from communities around the world, not just those based in the global North. Previously in this chapter, a theoretical understanding of commons derived in part from the work of Ostrom and Hess led to a critique of some of the existing ‘scholarly commons’ initiatives such as the SCWG, particularly with regards to the idea of a *single* scholarly commons, coterminous with the ‘scholarly record’ i.e. containing all known scholarship. Now, it is time to combine these insights, and make the positive case for a plurality of scholarly commons in which principles of self-governance can be used by commoners to create a diverse ecosystem.

Commons are social institutions so they cannot spontaneously come into being; they are always constructed by people and they exist through ongoing practices of commoning (Moore 2018). The construction of a collection or network of multiple scholarly commons, bounded in particular ways – for example by institutional membership or by scholarly discipline – offers an opportunity for experimentation and for sensitivity to cultural difference. For instance, the structural variation between scholarly disciplines could lead to different rules for the provision and governance of commons that were constructed specifically for a given discipline. Due to this variation, a networked ecology of commons is a more appropriate approach than seeing scholarship, or scholarly resources, as an undifferentiated mass. By maintaining the specificity of different knowledges, working towards an open ecosystem of heterogeneous publication practices could serve scholarly disciplines well, as well as facilitating a decolonisation process.

Any proposed shift in the way open access occurs – or, indeed, any aspect of scholarly communication – must take into account the incentives that different stakeholders would need in order to change their behaviour (see Šimukovič 2014). In particular, the prestige economy within which academic researchers operate (see Chapter 2) determines which behaviours are seen as possible. Since publication practices are deeply entangled with this prestige economy (Fyfe et al. 2017), moving towards a commons-based open access policy requires careful understanding of the ways in which authors currently approach publication and the risks they may

perceive in alterations to their practices. Given the diverse perspectives – from different stakeholder groups (e.g. authors, publishers, funders etc.) and different disciplinary communities – on what scholarly communication is for and how best to organise it, working at a local level has a distinct advantage when it comes to collective action. It is extremely unlikely that all interested parties will come to agree on a single way forward, so collective action at a system level (as per Schimmer, Geschuhn, and Vogler 2015) appears untenable. However, if a smaller community is able to come to an agreement regarding how they think *their* community should be organised, this could be more likely to lead to transformative action. The fragmentation of scholarly practice, if different communities choose different paths, may be embraced as a positive development, and any negative effects could perhaps be alleviated through community coordination. The Radical Open Access Collective is an example of a grassroots attempt at this kind of coordination. By forming a horizontal alliance of scholar-led, not for-profit presses, they foreground the necessity for contestation, multiplicity, and experimentation in academic publication practices, while also providing community support (Adema and Moore 2018; Radical Open Access Collective 2017). Adema and Moore (2018: 2–3)²⁹² have argued that the size and scale of individual initiatives can be turned into an advantage through collective and collaborative practices:

Small institutional, campus-based, independent and scholar-led OA projects, due to their size and often not-for-profit background, do face various structural constraints, from lacking skill sets and experience to insufficient market leverage. However, when taken together, in different constellations, we would argue that these independent community-driven projects have the potential to create a resilient ecosystem to support the scholarly commons. [...] Making use of economies of scale, working from individual projects to contributing to collective and collaborative ones, will allow these projects to retain their independence and to honour their not-for-profit character, while providing a scaleable publishing model that aligns with the ethos of scholar-led publishing.

292 Janneke Adema and Sam Moore are two early-career scholars who have been instrumental in facilitating the work of the Radical Open Access Collective.

This vision is in stark contrast to that offered by the SCWG, as discussed in the previous section (see Bosman et al. 2017), who write as if a scholarly commons will only exist as a single global entity. Contrary to this, to argue for a plurality of local scholarly commons, which share common features but are not necessarily able to be submerged into a whole, is more attuned to the careful depiction of long-enduring commons seen in the work of Ostrom (2015 [1990]). The scholarly commons does not require grant-funded leadership from a small selective group who define the terms on the behalf of the community. Rather, it can be nurtured through local, collaborative, participatory means. Levine distinguishes between a *libertarian commons*, which ‘anyone has a right to use’, and an *associational commons*, which is owned and controlled by a defined group (Levine 2011: 250–51). From this perspective, membership is key, and for natural commons this facet is always present – self-governance by a membership community is, by definition, what makes a resource a commons rather than an open-access resource. For knowledge commons, which *can* take the form of open-access resources, membership is not strictly necessary for a resource to exist but it may well be one of the key criteria for a *successful commons*.

This depiction of scholarly commons is a long way from the current state of neoliberalised open access policy as analysed in the previous chapter. Any attempt to bring the two perspectives closer together, and work towards a commons-based open access policy for the UK, will be fraught with difficulties. However, in the remainder of this section such an attempt will be made, in part by describing particular open access initiatives that exhibit commons-like facets and highlighting ways in which they can be supported through policy. Although this thesis is not conducting a full analysis of scholarly communication using the Institutional Analysis and Development Framework developed by Ostrom and colleagues,²⁹³ it is valuable to take inspiration from that approach by discussing examples of actually-existing scholarly communication initiatives with commons-based aspects to them. To counter the blue-skies thinking of the Scholarly Commons Working Group, this grounding in current reality begins to reveal the variety of commons-based perspectives that are possible, and also shows that it is not necessary to form high-

293 To provide an empirical grounding for research into the scholarly commons in this way would be an extremely valuable research project (building on the work of Hess and Ostrom 2004) but would require a whole additional thesis.

level principles before taking action.²⁹⁴

For any governance alterations to be regarded as legitimate rather than an imposition, communities must be consulted about changes that will affect their practices. Given the heterogeneous nature of academic communities of practice, any centralised open access policy that applies to all disciplines (such as the current HEFCE/Research England policy) will come into conflict with the norms of some communities.²⁹⁵ In the UK, the formation of UKRI exhibits a centralising tendency; contrary to this, perhaps each research council should have a different policy. On the other hand, the funder policy landscape is already somewhat complex, and a united RCUK/UKRI policy has the advantage of simplifying open access requirements in researchers' eyes. Further fragmenting policy requirements into the different councils could cause even more confusion, especially among those researchers working cross-council and in an interdisciplinary way (something that is encouraged). However, these risks may be worth it, if decentralised decision-making can be encouraged. More friction may be a good thing if it leads to greater critical engagement with publication practices. Collective action requires voluntary commitment from each participant (Meinzen-Dick, Di Gregorio, and McCarthy 2004). If a commons-based system is to 'reject the idea of hierarchy in favor of a participatory and collaborative model, one that prevents the concentration of power and puts community interests at the center' (Mattei 2012: 43), then an immediate flip to full open access by any means necessary begins to look like a conservative position compared to the critical and experimental approaches that can only be fostered at a more local level and at a slower pace (see also Radical Open Access Collective 2017).

Perhaps the most urgent need for progressing open access in a non-neoliberal direction is eliminating APCs and replacing them with alternative funding models. None of the different progressive initiatives discussed below use APCs. The 'OA Beyond APCs' Conference Report listed the following requirements for an APC-free publishing agenda:

294 This is not to say that the SCWG has no value, only that there are other ways of working that are more likely to produce progress.

295 It should be noted that HEFCE did consult on their policy, leading to additional exemptions to better suit some humanities disciplines, though, as per note 235, see Holmwood (2016) on the limitations of government consultations.

- present a solution that is free for readers and for authors – in this case APC-free;
- acknowledge and suggest paths for addressing perceived barriers and challenges to the proposed scenario;
- work in the local context and create partnerships that incorporate a variety of global situations, including those marginalized by historical, political, and economic power structures;
- present an agenda for action;
- envision a 5- to 10-year transition that includes universities as a major stakeholder in a knowledge production and sharing environment that will benefit all readers and authors;
- be scalable – something that interacts with the local but could be scaled up to the global

(Smith 2017)

These requirements are a useful summary of the issues that need addressing (see also Smith 2015). The challenge is both economic and social. Publishing is always economic, if not necessarily profit-oriented (Bhaskar 2013: 138, 141), and Eve reminds us that ‘in order to implement some forms of open access we must formulate new economic models to support the labour inherent in publishing’ (Eve 2017a: 56). Various small open access publishers have been using non-APC/BPC funding models for some time, including some monograph publishers in the humanities such as Open Book Publishers, Open Humanities Press, and punctum books. To encourage more work in this area, OpenAIRE, an EU project to support open access, has recently provided project funding to assist these publishers with non-BPC models (OpenAIRE 2018). Since there is ‘no commons without commoning’, the focus of this section will now turn to some of the work that people have been doing to try and make a commons-based open access a reality.

Open Library of Humanities (OLH) is a UK-based non-profit academic publisher of open access humanities journals (see Eve and Edwards 2015).²⁹⁶ OLH is funded through what it terms a ‘library partnership subsidy’. In this model, academic libraries pay an annual membership fee, and in return are given membership rights

²⁹⁶ Full disclosure, OLH’s founders Martin Eve and Caroline Edwards are also the supervisors for this thesis at Birkbeck.

to participate in governance decisions, primarily regarding which additional journals are added to the portfolio each year. The income from membership fees means that OLH does not need to charge APCs or any other per-article fees. This is an example of a collective funding model that has already demonstrated a level of sustainability and consistent growth over several years, leading to an expectation that it can continue to scale up further.²⁹⁷ Another initiative that uses collective funding is Knowledge Unlatched, which pools income from member libraries to pay publishers to make a selection of newly-published books open access each year (Leach-Murray 2017, Montgomery 2014).

As well as publishing a number of individual journals, Open Library of Humanities also hosts a megajournal, which is also called *Open Library of Humanities (OLH)*. Megajournals are a new form of open access journal that publish large volumes of research in broadly defined subject areas rather than specific niches, and employ a peer review process based on intellectual or scientific ‘soundness’ rather than the perceived novelty or significance of the work (Björk 2018; Spezi et al. 2017). Megajournals have received support from some research funders, such as Wellcome Trust, Gates Foundation, and the European Commission, who have all set up their own open publishing platforms (Ross-Hellauer, Schmidt, and Kramer 2018). Notably, all three of these funders are relying on a single for-profit provider, F1000, to host and run their platforms. Megajournals are in some ways the opposite of the ‘localism’ approach advocated for in this chapter. By definition, they concentrate research publication in a smaller number of venues. Indeed, Ross-Hellauer, Schmidt, and Kramer (2018) have hinted that existing publisher platforms may merge in the future. There is nothing inherent in the concept that precludes involving a wide number of stakeholders in the governance of megajournals, but so far in practice a small number of for-profit entities have dominated the market (with the notable exception of the non-profit *PLOS ONE* that pioneered the idea). Therefore funder support for such platforms is another indication that open access policy is currently continuing down a path that will not alter the fundamental economics of scholarly publishing away from corporate control.

²⁹⁷ OLH also provides an example of the difficulties faced by initiatives that seek to move beyond market principles – Eve (2018) has written of how the accountability agenda of government policy, the rhetoric of which is sometimes adopted by open access advocates, can in fact work to prevent the adoption of non-market open access.

In contrast, multiple alliances have launched in the past few years that take a multi-stakeholder approach towards nurturing a scholar-led publishing ethos. These initiatives include the Radical Open Access Collective, the Library Publishing Coalition – a federation of US research libraries involved in publishing (Lippincott 2016) – and the Consortium for a Transparent Transition to Open Access (Fair Open Access Alliance 2018).²⁹⁸ A common theme among all of these alliances is that they emphasise working collectively while maintaining a diverse ecosystem of independent publishers. In creating ‘*multi-stakeholder collaborations*’, ‘there is scope for thinking of the various not-for-profit entities within scholarly communication as potential community partners in the emerging OA commons of academic publishing. The aim then becomes to realign the existing resources in the system of academic publishing, and to direct them to alternative not-for-profit collaborative models’ (Adema and Moore 2018: 4). However, the following example serves as warning that a highly principled approach to collective ideals is not sufficient to ensure a successful transition to commons-based open access, if attention to *care* is not foregrounded.

Corsín Jiménez et al. (2015, 2015a) have discussed the process of attempting to convert the portfolio of journals published by the American Anthropological Association to open access. They argue for treating the journal as a ‘common property resource’ owned by the society members, forming part of an ‘alternative ecology of OA scholarly publishing’ (Corsín Jiménez et al. 2015). They initially had optimistic intentions, seeking to use co-operative principles ‘to build a robust and sustainable multi-stakeholder ecology of open access scholarly communications involving libraries, funding agencies, and infrastructure providers’ (Corsín Jiménez et al. 2015a: vi). However, in 2017 it was announced that AAA would in fact continue to publish with Wiley (American Anthropological Association 2017). Furthermore, as of mid-2018, the flagship open access anthropology journal *HAU: Journal of Ethnographic Theory* is converting to a subscription publishing model (Flaherty 2018). In the wake of this decision, a scandal emerged regarding the behaviour of *HAU*’s editor-in-chief, Giovanni da Col – one of the co-authors of Corsín Jiménez et al. (2015a) – who engaged in personal and financial misconduct (Flaherty 2018; Former HAU Staff 7 2018). Reports of bullying, harassment, and

298 See Naim, Stranack, and Willinsky (2017) and Willinsky (2017a) for more on the potential of using co-operative models to flip journals from subscriptions to open access.

other unethical behaviour by someone who has tried and failed to foster co-operative open access is a reminder that those working towards a progressive open access future must pay attention to, and value, the people who undertake this labour. The foregrounding of an ethics of care – care for the people who do the work of researching and publishing, as well as care for scholarly work (Deville 2018, Moore 2018, Nadim 2018) – is vital work for all of those labouring in this space.

Turning to consider green open access, it has been argued that repositories can be considered to be a common-pool resource, as Meyer and Kling (2000) have argued with reference to *arXiv* (see also Duranceau 2008). As discussed in Chapter 2, *arXiv* was the first online subject repository and remains the primary repository for certain fields such as high-energy physics and mathematics. It has been so successful within these fields that researchers expect it to contain most relevant work, and will cite works deposited in *arXiv* even before formal publication in a peer-reviewed journal (Aman 2015; Gentil-Beccot, Mele, and Brooks 2009: 5–7). There is a barrier to entry for contributing to *arXiv*, as people who are not affiliated with a research institution must be endorsed by an existing member of the community (arXiv [n.d.]a). Initially hosted by a single library, *arXiv* is now a ‘collaboratively governed, community-supported resource’, with ‘a membership and governance model based on voluntary institutional contributions’ (arXiv [n.d.]). Governance is therefore undertaken by research institutions who can afford the membership fee rather than directly by author-contributors. Similarly to the situation with Open Library of Humanities, therefore, it is a particular subset of institutions that can partake in governance, which accords to Ostrom’s conception of commons outlined above.

Another repository that demonstrates commons-like attributes is Humanities Commons. This grew out of MLA Commons, a closed community for members of the Modern Language Association (MLA), and is now available to ‘any interested researcher or practitioner in the humanities [...] regardless of their institutional affiliation, or employment status, or society memberships, or any other determining factor’ (Fitzpatrick, forthcoming [2019]). This represents a much lower barrier to entry than *arXiv*. The social aspects of Humanities Commons – it is structured around members, groups, and discussion, rather than documents – take it beyond being just another repository and position it alongside academic social networks (see Agate 2017). At present, the two dominant academic social networks are the for-

profit sites Academia.edu and ResearchGate (see above),²⁹⁹ so a rival to these that is designed to serve scholars rather than capital is very welcome.

By this stage of the analysis it is clear that a call for an ecosystem of heterogeneous commons-based open access initiatives is not merely a theoretical idea, but a rather an extension of already-existing work. Furthermore, numerous software projects exist that provide the open source technical infrastructure that enables scholarly communities to take control over their publication practices. One of these, Open Journal Systems (OJS), first launched in 2001 and is now used by over 10,000 academic journals, many of which are published independently (PKP [n.d.] 2018). A number of other more recent open publishing software initiatives have emerged such as CoKo (the Collaborative Knowledge Foundation), Janeway, and Vega (see Eve and Byers 2018; McGonagle-O’Connell 2018). These developments perhaps indicate an increasing desire among the scholarly and library communities to ‘take back control’ of scholarly infrastructure (Posada and Chen 2017).³⁰⁰ Similarly, the rapid increase of library publishing over the past few years (Stone 2017: 48–62) is another prominent example of community-owned infrastructure being actively developed.

Such developments can shed light on a point raised in the discussion of co-operatives in the previous section, which is that self-governance requires the existence of a desire within a community to self-govern. It is apparent that within the scholarly communication community there is a strong desire for change. Whether or not this desire can be expanded to academia more broadly is hard to predict. However, recent political events in the UK indicate a dissatisfaction with many aspects of contemporary higher education. The UCU strikes of Spring 2018, while ostensibly about the single issue of pensions, also raised the profile of many other issues and gave voice to those who wish to turn back the neoliberal tide and reclaim higher education for more socially-oriented purposes (Andrews 2018). A similar momentum is found within scholarly communications with various suggestions for radical alternative ways of thinking about how to fund publishing, from a call to commit a certain proportion of library expenditure to fund shared open infrastructure

299 Other non-profit alternatives to ResearchGate and Academia.edu have been launched as well, such as ScholarlyHub (Hathcock and Geltner 2018)

300 In Finland, for example, OJS has been used to create a consortium-based open access publishing platform (Ilva 2018), at the same time as hostility towards Elsevier has increased (see <https://www.nodealnoreview.org/>).

(Lewis 2017; Lewis et al. 2018),³⁰¹ to the perhaps more far-fetched idea of nationalisation (Matthews 2018a). One thing that is shared by many of these provocations is a growing realisation of the importance of infrastructure. Therefore a significant move for open access policy and funding would be to explicitly re-orient the focus away from journal publications and towards infrastructure. Indeed, to recalibrate the financial flows (Lawson, Gray, and Mauri 2016) towards commonly-owned infrastructure could help bring about ‘community control of scholarly publishing infrastructure’, as one report put it (PKP 2018). The following example shows that progressive open access initiatives are occurring not only in terms of publishers, repositories, and software, but also in the policy realm.

A policy intervention already in development in the UK is the UK Scholarly Communications License (UK-SCL). The UK-SCL is an example of a productive approach to collective action that creates a new legal mechanism to increase access. The UK-SCL is an open access policy that can be adopted by higher education institutions to retain copyright and re-use rights for their authors, so that they are free to deposit postprints (‘accepted manuscripts’, see Chapter 1) in an institutional repository:

Implementation of the UK-SCL ensures that authors retain the right to share their manuscripts freely, and to reuse their research outputs in their own teaching and research. Authors retain copyright and, by extension, moral rights and are free to publish in the journal of their choice and, where necessary, to assign copyright to the publisher. The model is seen as an interim measure until a sustainable open access publishing model is implemented that facilitates sharing of scholarly outputs without delays or barriers.

(UK-SCL [n.d.])

This model is known as a ‘Harvard-style’ mandate, named after the first university to implement the model, ‘wherein the University not only requires academics to self-archive their papers, but to grant the university a non-exclusive licence to exercise all rights under copyright for non-commercial purposes’ (Gadd 2017). Although the UK-SCL has not yet been implemented by any institution at the time of writing,

301 See Neylon (2018) for a critique of Lewis’ proposal.

Gadd (2017) has revealed that ‘a move towards “shared” ownership of scholarly works’ is already underway in terms of UK institutions’ copyright policies. In other words, institutions appear to be becoming more likely to assert their rights to the ‘intellectual property’ generated during the course of academics’ employment.

The UK-SCL has been inspired by an urge to simplify the current complex open access policy landscape for researchers in the UK (Baldwin and Pinfield 2018). Work on the license has been led by institutions, especially Chris Banks at Imperial College London and Torsten Reimer (now at the British Library), rather than by any central authority. Implementation of the license must be done at an institutional level, with approval from the institutional community, because it involves a legal change to terms of employment. However, if a large number of institutions implement the license, then the collective benefit would be much more effectual.

Although the UK-SCL is not explicitly about infrastructure, the implication of the license is to enable funders and institutions to redirect money away from APCs. This is because by providing openly-licensed versions of the full text of research articles at the time of publication, the necessity for paying a publisher a fee to achieve the same thing is reduced. If adopted on a mass scale, therefore, money that is currently used to pay APCs could be freed up to fund infrastructure, open access library publishing, and other collective scholar-led publishing initiatives such as those discussed above.

To link the argument here back to UK *government* policy, which was the core concern of the analysis of open access policy in Chapter 7, highlights the difficulties in considering support for grassroots activity by agencies – the research funders – that are structured as ‘top-down’ organisations. It could be argued that the role of central authorities in commons governance is only to provide conditions within which communities can govern themselves.³⁰² This would be in stark contrast to the approach to open access policy so far taken by UK policymakers, which has largely consisted of top-down mandates that few individual researchers had a say in creating. Moore (2017) has argued that open access is not ‘suitable as a policy object, because boundary objects³⁰³ lose their use-value when ‘enclosed’ at a general

302 Ostrom (2015 [1990]) has argued that successful governance of common-pool resources requires *self-governance*, so if external policy is a driver for change it must involve community input from the start and allow some of the institution-building to be developed from within the community.

303 This term is from Star and Griesemer (1989): ‘Boundary objects are objects which are both

level, but should instead be treated as a community-led, grassroots endeavour'. While the main thrust of that argument is consistent with the approach considered in this chapter, the implication that open access should be removed entirely from the policy arena is too strong. Instead, the policy focus should shift to a dual track of supporting and funding infrastructure, and enabling local communities. (An example of this approach can be seen in decision of the EU's OpenAIRE project to provide project funding to assist publishers with non-APC gold open access models, as mentioned above.) For policymakers to withdraw from any engagement with open access, as Moore suggests, would risk removing a key lever for connecting communities together in a strategic way and increase the chance of fragmentation. Although fragmentation may in some ways be considered a good thing if a diversity of approaches is to be encouraged, a degree of coordination is still necessary if the full potential of open scholarship is to be reached. Ideally, coordination would be achieved without the need for intervention from central authorities (as exemplified by the Radical Open Access Collective), but given the slow and inconsistent adoption of open access so far, a light-touch approach to policymaking that redirects funding towards social and technical infrastructure for open access publishing could be beneficial in facilitating the development of a variety of commons-based open access initiatives. As such, Moore (2017) is partially correct to suggest that:

For it to be politically progressive, the conditions for OA's adoption should reflect and be answerable to the various communities of practice that conduct and publish research. There should be a space for experimentation and dissent. The important thing here is for funders, institutions and governments to back away from implementing restrictive mandates and instead facilitate experimentation governed by communities themselves.

While agreeing with the notion that funders should support scholarly communities to govern their own open publishing practices, it would still be possible to 'mandate' open access in ways that are not linked to APCs or the REF. For instance, mandating

plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use, and become strongly structured in individual site use. These objects may be abstract or concrete. They have different meanings in different social worlds but their structure is common enough to more than one world to make the recognizable, a means of translation'.

that funder-supported research is only published in venues with governance structures that are accountable to the scholarly community they serve. Whether such an approach is politically possible right now is a separate issue; the primary purpose of this chapter is to signal the possibility for a non-neoliberal approach to open access should external conditions allow.

Conclusion

In this chapter the commons has been considered as an alternative framework for understanding open access. While the commons is not a panacea that will solve all of scholarly communication's current problems, and will not by itself usher in a utopian era of openness and equity, the idea of scholarly commons can function as a framework to guide open access policy towards progressive ends. A framework is 'an analytical scaffolding that contains a universal set of intellectual building blocks' (Ostrom and Hess: 2011: 42); it is more a series of guiding principles than a rigid set of rules. As Ostrom says, 'From a framework, one does not derive a precise prediction. From a framework, one derives the questions that need to be asked to clarify the structure of a situation and the incentives facing individuals' (Ostrom 2015 [1990]: 192). Thus to argue in favour of scholarly commons is not to propose a grand theory within which open access functions. Rather, it is to shape the direction of travel for open access policy and to alter the incentives in favour of collective governance among the plurality of scholarly communities producing research.

Chapter 7 showed that neoliberalism has so infused the policy-making process in the UK that, unless significant high-level political change occurs, all open access policies that are enacted through official channels will end up supporting neoliberal ends to some extent. This chapter has explored the idea of scholarly commons as an anti-neoliberal alternative. The commons is anti-neoliberal not only because it is an organisational form outside of the market, but because it prioritises *people* and the collective decisions they make. As Chapter 5 made clear, neoliberalism is about freedom for capital, not freedom for people. Neoliberalism is a political project to shape all social relations so they conform to the logic of capital. Therefore to work with socio-economic forms that emphasise cooperative ownership and governance is a form of resistance to neoliberal ideology. A scholarly commons – or an ecology of multiple scholarly commons – can act as a bulwark against market enclosure.

If it is correct to say that policy-making has been captured by neoliberal interests, the way forward for anti-neoliberal ideas is therefore not – at least, not solely – through official policies of the government and its agencies. Indeed, resistance to neoliberalism, across many areas of society, has been richest outside of mainstream (parliamentary) politics (Ball 2014). So to progress a commons-based approach to scholarly communication, attention should focus instead on a plurality of localised grassroots initiatives rooted in particular communities. This does not mean that high-level perspectives should be ignored; there is still significant value to be found in working to connect these communities, with social and technical infrastructure, and it may be possible for high-level principles of the commons to emerge. However, the analysis of the commons presented in this chapter places hope for a progressive future in the hands of communities themselves, not in government-approved policy. If a commons-based open access policy is possible, it must be carefully constructed with close attention paid to the power relations that exist between different scholarly communities.

Chapter 9. Conclusion

This thesis has made a contribution to the knowledge of open access through a historically and theoretically informed account of contemporary open access policy in the UK. It combines work from across disciplines in an original way that has not been attempted before with regards to this topic. It has critiqued existing policy by revealing the influence of neoliberal ideology on its creation, and proposed a commons-based approach as an alternative. The following summary explains the contribution of each chapter to the end result.

The historical context in Chapters 2 and 3 has shown that access to knowledge has undergone numerous changes over the centuries and the current push to increase access to research, and political controversies around this idea, is part of a long tradition. The exploration of the origins and meanings of ‘openness’ in Chapter 4 has enriched the understanding of open access as a concept and made possible a more nuanced critique of specific instantiations of open access in later chapters. The theoretical heart of the thesis is Chapter 5, in which neoliberalism was analysed with a particular focus on neoliberal conceptions of liberty and openness. The subsequent examination of neoliberal higher education in Chapter 6 was therefore informed by a thorough grounding in the ideology that underlies policymaking in the neoliberal era. This understanding then acted as invaluable context for the analysis of the UK’s open access policy in Chapter 7. By highlighting the neoliberal aspects of open access policy, the political tensions within open access advocacy were shown to have real effects on the way that open access is unfolding. Finally, Chapter 8 proposed the commons as a useful theoretical model for conceptualising a future scholarly publishing ecosystem that is not based on neoliberal ideology. An argument was made that a commons-based open access policy is possible, though must be carefully constructed with close attention paid to the power relations that exist between different scholarly communities.

Chapter 7 serves as an answer to the main question of this thesis, as posed in Chapter 1, which is: to what extent can the UK’s open access policy be characterised as neoliberal? In other words, by bringing open access into the realm of government policy, to what extent has the openness of open access been co-opted by the openness of neoliberalism (i.e. freedom for capital)? While the answer to these

questions is not straightforward, the contextual understanding provided by this thesis provides an important grounding for both scholars and framers of open access policy. Most notably, the APC funding model is highlighted here as embodying a market-driven logic, and so politically progressive approaches to open access – whether rooted in the commons or otherwise – should focus on alternatives to the APC model.

In a work that questions existing scholarly conventions, it would be remiss not to acknowledge that the very notion of individual authorship may not be the most helpful way of understanding the process of scholarly writing. As copyright scholar Jessica Litman has argued, echoing Barthes, authorship is ‘a process of adapting, transforming, and recombining what is already “out there” in some other form’ (Litman 1990). The narrative constructed in this thesis is one that relies on others’ work and is in dialogue with that work; the creativity exercised through this writing is only possible given the body of scholarship within which it is situated.³⁰⁴ The critical approach used in this thesis to advance knowledge of the subject is therefore indebted to all the scholars and workers cited herein who have made this particular work possible.

This thesis has a number of limitations. Firstly, it has been written from a UK perspective. Although attempting to acknowledge the global situation and embrace multiple perspectives, it is still inevitably a somewhat parochial view. This limitation is exacerbated by the fact that with few exceptions, only English-language sources have been consulted. Furthermore, it focuses on a particular time period (2010–15) and since open access policy is at such an early stage – ‘early’, assuming that it continues to progress³⁰⁵ – as it evolves, the insights provided here may become less relevant. A more hopeful way of phrasing this point is to suggest that an analysis based on neoliberalism may become less relevant as the ideology itself slips from its hegemonic position. Even so, as an account of open access policy in a particular place and time, this work will hopefully be of use to scholars who are analysing open access in other places and at other times.

304 The cultural meanings of citation and reference practices form a complex subject of scholarship in its own right (see Neylon 2016).

305 Indeed, since the initial submission of this thesis, a coalition of research funders has launched ‘Plan S’ with the intention of speeding up a transition to open access. So it appears that open access will continue to become further entangled in high level policy decisions, and thus the importance of studying its politics increases.

Indeed, there is significant scope for further research on this topic. As noted in the introduction, there has not been a large quantity of theoretical or critical research investigating open access, though this is beginning to change. The politics of open access are complex and could be studied using many different approaches. This thesis has centred the relationship between openness and neoliberalism – just one of the numerous possible approaches to analysing open access politics – which has been shown to be far from simple, agreeing with Moore (2017) that “‘the open’ has a more complicated relationship with the political than meets the eye [...] Although there are many ‘open’ projects that do conform neatly to the neoliberal values of measurement by the market, there are many that do not and many that oppose it’”. Thus, although this thesis has focused on the neoliberalisation of open access policy in the UK, the breadth of related issues that have arisen could lead to further investigations from alternative theoretical and disciplinary perspectives.

This thesis has largely avoided providing explicit, actionable policy prescriptions that can be implemented by policymakers. From the perspective of those looking to instigate rapid policy change this may be disappointing. However, it is important to recognise the specific purpose of a doctoral thesis which is to make a contribution to knowledge, rather than make a direct political intervention. There may well be a grey area between the two; as should be very clear by this point (and as the epigraph to this thesis indicates), it has been written from a perspective that is highly critical of neoliberal capitalism, and it is not possible to separate this perspective from the work itself. The discussion of specific commons-based and collective open access initiatives towards the end of Chapter 8, and the possible role of government policy in supporting such initiatives, is the closest that the main body of this thesis gets to making a case for particular policy changes. However, to conclude, here are a few actions that people can take to advance forms of open access that resist the encroaching neoliberalisation of academic publishing.

For academics, it should now be clear that decisions about publication venues have political ramifications that warrant close scrutiny. Although these decisions are, as Chapter 2 explores, closely tied to hiring and promotion mechanisms that are outwith the remit of most academics to change, there are still ways in which each academic can take greater care with their publishing choices. At the very least, if a researcher feels compelled to publish in particular closed-access journals for career reasons, they can make a green open access preprint or accepted manuscript

available in a repository.³⁰⁶ For greater systemic change, however, a turn towards collectively-funded (non-APC) gold open access is necessary. Those senior academics and higher education professionals who *do* have influence over hiring and promotion mechanisms, therefore, should use their position to affirm support for open access over legacy markers of prestige. The increasing number of institutions that have signed the San Francisco Declaration on Research Assessment (DORA) is a welcoming sign of change, though signing the declaration has all too often not yet led to concrete change.

For policymakers, the primary concern should now be to continue the expansion of open access to the research that they fund while seeking approaches to funding that do not rely on APCs. Chapters 7 and 8 have shown that as well as contributing to a neoliberalisation of academic publishing, APCs entrench inequitable power relations between different scholarly communities. ‘Transitional’ mechanisms that rely on hybrid models, such as offsetting or read-and-publish agreements, are thus not adequate for a transition to an open and equitable scholarly communication system. Therefore progress on more collective and collaborative funding mechanisms should be encouraged through appropriate policies and economic stimulus. Other actors in the scholarly community should also heed this message, especially those learned societies that currently use publishing income to fund their other activities.

The work of attempting specific interventions towards constructing a commons-based open access policy, based on the insights herein, will be an ongoing struggle for those involved in open access over the coming years.

306 Check the Jisc-funded SHERPA/RoMEO service (<http://sherpa.ac.uk/romeo/index.php>) for individual journals’ policies on self-archiving.

References

- In Defence of Higher Education*. 2011. <[https://www.ucu.org.uk/media/5167/In-Defence-of-Public-Higher-Education/pdf/In Defence of Public Higher Education.pdf](https://www.ucu.org.uk/media/5167/In-Defence-of-Public-Higher-Education/pdf/In%20Defence%20of%20Public%20Higher%20Education.pdf)> [accessed 18 June 2018]
- Abbate, Janet. 1999. *Inventing the Internet* (Cambridge, MA: MIT Press)
- Access to Research. [n.d.]. <<http://www.accesstoresearch.org.uk/>> [accessed 18 June 2018]
- Adams, Richard. 2017. 'Almost Half of All Young People in England Go On to Higher Education', *Guardian*, 28 September 2017
<<https://www.theguardian.com/education/2017/sep/28/almost-half-of-all-young-people-in-england-go-on-to-higher-education>> [accessed 18 June 2018]
- Adams, Richard, and Peter Walker. 2018. 'May Warns Universities Over High Cost of Tuition Fees', *Guardian*, 19 February 2018
<<https://www.theguardian.com/education/2018/feb/18/cutting-tuition-fees-would-backfire-justine-greening-warns-theresa-may>> [accessed 18 June 2018]
- Adcock, Joanna, and Edward Fottrell. 2008. 'The North–South Information Highway: Case Studies of Publication Access Among Health Researchers in Resource-Poor Countries', *Global Health Action*, 2008(1)
<<https://doi.org/10.3402/gha.v1i0.1865>>
- Adema, Janneke. 2015. 'The Monograph Crisis Revisited', *Open Reflections*, 29 January 2015 <<https://openreflections.wordpress.com/2015/01/29/the-monograph-crisis-revisited/>> [accessed 18 June 2018]
- Adema, Janneke, and Sam Moore. 2018. 'Collectivity and Collaboration: Imagining New Forms of Communitality to Create Resilience In Scholar-Led Publishing', *Insights*, 31(3) <<http://doi.org/10.1629/uksg.399>>
- Agate, Nicky. 2017. 'Using Humanities Commons to Curate your Online Presence and Increase the Impact of Your Work', webinar, 19 May 2017, *Humanities Commons* <<https://doi.org/10.17613/M6R69F>>

- Aguiar, J. C. G. 2011. 'The Ambivalent Relation Between State and Illegal Actors: Piracy Retail in Mexico', *Etnográfica*, 15(1)
<<https://doi.org/10.4000/etnografica.840>>
- Albornoz, Denisse. 2017. 'Power and Inequality in Open Science Discourses', *Medium*, 20 November 2017 <<https://medium.com/@denalejandraa/power-and-inequality-in-open-science-discourses-9d425b0c2b63>> [accessed 18 June 2018]
- 2017a. 'The Rise of Big Publishers in Development and What is at Stake', *The Knowledge Gap*, 20 September 2017
<<http://knowledgegap.org/index.php/2017/09/20/the-rise-of-big-publishers-in-development-what-is-at-stake/>> [accessed 2 July 2018]
- Allen, Brenda A., Paul Armstrong, Farid Azfar, Omer Bartov, B. Anthony Bogues, James Campbell, Ross E. Cheit, Steven R. Cornish, Neta C. Crawford, Evelyn Hu-DeHart, Vanessa Huang, Arlene R. Keizer, Seth Magaziner, Marion Orr, Kerry Smith, William Tucker, and Michael Vorenberg. 2006. *Slavery & Justice* (Providence, RI: Brown University)
<https://www.brown.edu/Research/Slavery_Justice/documents/SlaveryAndJustice.pdf> [accessed 18 June 2018]
- Almeida, Nora. 2017. 'Open Education Resources and Rhetorical Paradox in the Neoliberal Univers(ity)', *Journal of Critical Library and Information Studies*, 1(1)
<<https://doi.org/10.24242/jclis.v1i1.16>>
- Alperin, Juan Pablo. 2014. 'Open Access Indicators: Assessing Growth and Use of Open Access Resources from Developing Regions: The Case of Latin America', in *Open Access Indicators and Scholarly Communications in Latin America*, ed. by Juan Pablo Alperin, Dominique Babini, and Gustavo E. Fischman (Ciudad Autónoma de Buenos Aires: CLACSO; Buenos Aires: UNESCO)
<<http://biblioteca.clacso.edu.ar/clacso/se/20140917054406/OpenAccess.pdf>> [accessed 18 June 2018]
- Alperin, Juan Pablo, Meredith T. Niles, Erin C. McKiernan, Lesley Schimanski, and Carol Muñoz Nieves. 2018. 'Review, Promotion, and Tenure Project', *Schol Comm Lab*, <<https://www.scholcommlab.ca/research/rpt-project/>> [accessed 18 June 2018]

- Alves, André Azevedo, and John Meadowcroft. 2014. 'Hayek's Slippery Slope, the Stability of the Mixed Economy and the Dynamics of Rent Seeking', *Political Studies*, 62(4): 843–61 <<https://doi.org/10.1111/1467-9248.12043>>
- Aman, Valeria. 2015. 'Citing E-Prints on arXiv: A Study of Cited References in WoS-Indexed Journals from 1991–2013', in *Proceedings of ISSI 2015 Istanbul: 15th International Society of Scientometrics and Informetrics Conference*, ed. by A. A. Salah, Y. Tonta, A. A. A. Salah, C. R. Sugimoto, and U. Al, Istanbul, Turkey, 29 June – 3 July 2015, pp. 1107–20
<<https://pdfs.semanticscholar.org/4321/07d764e7a63dfd01329d185876ad156025dd.pdf>> [accessed 3 July 2018]
- American Anthropological Association. 2017. 'AAA Extends Partnership with Wiley', *americananthro.org*, 9 March 2017
<<http://www.americananthro.org/StayInformed/NewsDetail.aspx?ItemNumber=21196>> [accessed 4 July 2018]
- Ammon, Ulrich, and Grant D. McConnell. 2002. *English as an Academic Language in Europe* (New York: Peter Lang)
- Anderson, Gina. 2008. 'Mapping Academic Resistance in the Managerial University', *Organization*, 15(2): 251–70
<<https://doi.org/10.1177/1350508407086583>>
- Andrews, Penny. 2016. 'User Experience Beyond Ramps: The Invisible Problem and the Special Case', in *User Experience in Libraries: Applying Ethnography and Human-Centred Design*, ed. by Andy Priestner and Matt Borg (Abingdon: Routledge), pp. 108–20
- 2018. 'Is the USS Dispute Exposing Infrastructure Failures in HE?', *WonkHE*, 23 March 2018 <<https://wonkhe.com/blogs/is-the-uss-dispute-exposing-infrastructure-failures-in-he/>> [accessed 18 June 2018]
- Archambault, E., D. Amyot, P. Deschamps, A. Nicol, F. Provencher, L. Rebut, and G. Roberge. 2014. *Proportion of Open Access Papers Published in Peer-Reviewed Journals at the European and World Levels—1996–2013* (Brussels: Science-Metrix; European Commission) <<http://digitalcommons.unl.edu/cgi/viewcontent.cgi?>

[article=1007&context=scholcom](#)> [accessed 18 June 2018]

Arendt, Hannah. 2015 [1954]. 'On the Nature of Totalitarianism: An Essay in Understanding', in *Essays in Understanding, 1930–1954: Formation, Exile, and Totalitarianism* (New York: Schocken Books), pp. 328–60

Armbruster, Chris. 2011. 'Open Access Policy Implementation: First Results Compared', *Learned Publishing*, 24(4): 311–24 <<https://doi.org/10.1087/20110409>>

Arunachalam, Subbiah. 2017. 'Social Justice in Scholarly Publishing: Open Access is the Only Way', *The American Journal of Bioethics*, 17(10): 15–17 <<https://doi.org/10.1080/15265161.2017.1366194>>

arXiv. [n.d.]. 'arXiv Business Support and Governance Model', *arXiv.org* <<https://arxiv.org/help/support>> [accessed 3 July 2018]

—— [n.d.]. 'The arXiv Endorsement System', *arXiv.org* <<https://arxiv.org/help/endorsement>> [accessed 3 July 2018]

Ashwin, Paul. 2017. 'Making Sense of the Teaching Excellence Framework (TEF) Results', *Time Higher Education*, 22 June 2017 <<https://www.timeshighereducation.com/news/teaching-excellence-framework-tef-results-2017>> [accessed 22 June 2017]

Association of American Publishers. 2016. 'AAP Overview on Sci-Hub and Scholarly Publishing', *Association of American Publishers* [blog], August 5 2016 <<http://newsroom.publishers.org/aap-overview-on-sci-hub-and-scholarly-publishing/>> [accessed 19 June 2018]

Association of College & Research Libraries. 2003. *Principles and Strategies for the Reform of Scholarly Communication 1* (Chicago: ACRL Scholarly Communications Committee) <<http://www.ala.org/acrl/publications/whitepapers/principlesstrategies>> [accessed 18 June 2018]

Atenas, Javiera, Leo Havemann, and Ernesto Priego. 2015. 'Open Data as Open Educational Resources: Towards Transversal Skills and Global Citizenship', *Open Praxis*, 7(4): 377–89

<<https://www.openpraxis.org/index.php/OpenPraxis/article/view/233>> [accessed 17 July 2018]

Ayris, Paul. 2017. 'Brexit – and Its Potential Impact for Open Access In the UK', *Insights*, 30(1): 4–10 <<https://doi.org/10.1629/uksg.336>>

Bacchiocchi, Emanuele, Massimo Florio, and Mara Grasseni. 2005. 'The Missing Shock: The Macroeconomic Impact of British Privatizations', *Applied Economics*, 37(14): 1585–96 <<https://doi.org/10.1080/00036840500215170>>

Bacevic, Jana, and Chris Muellerleile. 2017. 'The Moral Economy of Open Access', *European Journal of Social Theory*, 21(2) <<https://doi.org/10.1177/1368431017717368>>

Baggs, Chris. 2004. "'The Whole Tragedy of Leisure in Penury": The South Wales Miners' Institute Libraries during the Great Depression', *Libraries & Culture*, 39(2): 115–36 <<http://www.jstor.org/stable/25549172>> [accessed 19 June 2018]

Bagshaw, Ant. 2017. 'Let's Talk PoLEOtics – Like it or Not, Graduate Salaries Matter', *WonkHE*, 13 June 2017 <<http://wonkhe.com/blogs/lets-talk-poleotics-like-it-or-not-graduate-salaries-matter/>> [accessed 18 June 2018]

Baildon, Michelle. 2018. 'Extending the Social Justice Mindset: Implications for Scholarly Communication', *College & Research Libraries News*, 79(4) <<https://doi.org/10.5860/crln.79.4.176>>

Bailey, Michael, and Des Freedman (eds). 2011. *The Assault on Universities: A Manifesto for Resistance* (London: Pluto)

Baldwin, Julie, and Stephen Pinfield. 2018. 'The UK Scholarly Communication Licence: Attempting to Cut through the Gordian Knot of the Complexities of Funder Mandates, Publisher Embargoes and Researcher Caution in Achieving Open Access', *Publications*, 6(3) <<https://doi.org/10.3390/publications6030031>>

Baldwin, Melissa. 2015. *Making Nature: The History of a Scientific Journal* (Chicago and London: University of Chicago Press)

——— 2015a. 'Credibility, Peer Review, and Nature, 1945–1990', *Notes and Records*,

69(3) <<https://doi.org/10.1098/rsnr.2015.0029>>

Bali, Maha. 2017. 'The Promise of Open Education: What Can Open Education Do for You' [conference presentation], at *The Promise of Open Education*, 11 September 2017, Edinburgh <<https://www.youtube.com/watch?v=kLTNuKZtch4>> [accessed 18 June 2018]

Ball, Sophie Anita. 2014. 'Reclaiming the Commons: A Discourse for New Politics. How Grassroots Activists are Shaping the Future' (doctoral thesis, Middlesex University) <<http://hdl.handle.net/10535/9755>> [accessed 18 June 2018]

Bammer, Angelika, and Ruth-Ellen Boetcher Joeres (eds). 2015. *The Future of Scholarly Writing: Critical Interventions* (New York: Palgrave Macmillan)

——— 2015a. 'Introduction', in *The Future of Scholarly Writing: Critical Interventions*, ed. by Angelika Bammer and Ruth-Ellen Boetcher Joeres (New York: Palgrave Macmillan)

Baran, Paul. 1960. *Reliable Digital Communications Using Unreliable Network Repeater Nodes*. Report P-1995, Rand Corporation <<https://www.rand.org/content/dam/rand/pubs/papers/2008/P1995.pdf>> [accessed 18 June 2018]

——— 1964. 'On Distributed Communications Networks', *IEEE Transactions on Communication Systems*, 12(1): 1–9 <<https://doi.org/10.1109/TCOM.1964.1088883>>

Barlow, John Perry. 1996. 'A Declaration of The Independence of Cyberspace', *Electronic Frontier Foundation*. <<https://www.eff.org/cyberspace-independence>> [accessed 18 June 2018]

Basu, Aparna. 1989. 'Indian Higher Education: Colonialism and Beyond', in *From Dependence to Autonomy*, ed. by P. G. Altbach and V. Selvaratnam (Dordrecht: Kluwer)

Bates, Jo. 2013. 'The Politics of Open Government Data: A Neo-Gramscian Analysis of the "Open Government Data" Initiative in the United Kingdom' (doctoral thesis, Manchester Metropolitan University) <<http://e-space.mmu.ac.uk/id/>

[eprint/303783](#)> [accessed 18 June 2018]

—— 2014. ‘The Strategic Importance of Information Policy for the Contemporary Neoliberal State: The Case of Open Government Data in the United Kingdom’, *Government Information Quarterly*, 31(3): 388–95
<<https://doi.org/10.1016/j.giq.2014.02.009>>

Battiste, Marie. 2002. *Indigenous Knowledge and Pedagogy in First Nations Education: A Literature Review with Recommendations* (Ottawa, ON: National Working Group on Education, Indian and Northern Affairs Canada)
<<http://www.nvita.ca/docs/indigenous%20knowledge%20and%20pedagogy%20in%20first%20nations%20education%20a%20literature%20review%20with%20recommendations723103024.pdf>> [accessed 18 June 2018]

Bauer, Bruno, Guido Blechl, Christoph Bock, Patrick Danowski, Andreas Ferus, Anton Graschopf, Thomas König, Katja Mayer, Michael Nentwich, Falk Reckling, Katharina Rieck, Peter Seitz, Herwig Stöger, and Elvira Welzig. 2015. ‘Recommendations for the Transition to Open Access in Austria’, *Zenodo*
<<https://doi.org/10.5281/zenodo.34079>>

Bayne, Siân, Jeremy Knox, and Jen Ross. 2015. ‘Open Education: The Need For a Critical Approach’, *Learning, Media and Technology*, 40(3): 247–50
<<https://doi.org/10.1080/17439884.2015.1065272>>

BBC. 2016. ‘Libraries Lose a Quarter of Staff as Hundreds Close’, *BBC News*, 29 March 2016 <<https://www.bbc.co.uk/news/uk-england-35707956>> [accessed 19 June 2018]

—— 2017. ‘Brexit: Government Studies Handed to MPs Amid Secrecy Row’, *BBC News*, 28 November 2017 <<https://www.bbc.co.uk/news/uk-politics-42149793>> [accessed 18 June 2018]

Beasley, Gerald. 2016. ‘Article Processing Charges: A New Route to Open Access?’, in *Positioning and Power in Academic Publishing: Players, Agents and Agendas*, ed. by Fernando Loizides and Birgit Schmidt (Amsterdam: IOS Press)
<<https://doi.org/10.3233/978-1-61499-649-1-125>>

Beaumont, Peter. 2018. 'Record 68.5 Million People Fleeing War or Persecution Worldwide', *Guardian*, 19 June 2018 <<https://www.theguardian.com/global-development/2018/jun/19/record-68-million-people-flee-war-persecution-un>> [accessed 20 June 2018]

Becerril-García, Arianna, and Eduardo Aguado-López. 2018. 'The End of a Centralized Open Access Project and the Beginning of a Community-Based Sustainable Infrastructure for Latin America: Redalyc.org After Fifteen Years the Open Access Ecosystem in Latin America', *ELPUB 2018*, Jun 2018, Toronto, Canada <<https://doi.org/10.4000/proceedings.elpub.2018.27>>

Becher, Tony, and Paul Trowler. 2001. *Academic Tribes and Territories: Intellectual Enquiry and the Culture of Disciplines*, 2nd edn (Philadelphia, PA: Open University Press)

Becker, Gary S. 1993. *Human Capital*, 3rd edn (Chicago: Chicago University Press)

Beckett, Andy. 2015. 'The Great Tory Power Grab: How They Plan to Rule for Ever', *Guardian*, 14 December 2015 <<https://www.theguardian.com/politics/2015/dec/14/conservative-power-grab-stay-in-power-permanent>> [accessed 18 June 2018]

Beer, David. 2016. *Metric Power* (London: Palgrave Macmillan)

Behrent, Michael C. 2016. 'Liberalism without Humanism: Michel Foucault and the Free-Market Creed, 1976–1979', in *Foucault and Neoliberalism*, ed. by Daniel Zamora and Michael C. Behrent (Cambridge: Polity Press)

——— 2016a. 'Conclusion: The Strange Failure (and Peculiar Success) of Foucault's Project', in *Foucault and Neoliberalism*, ed. by Daniel Zamora and Michael C. Behrent (Cambridge: Polity Press)

Belfield, Chris, Jack Britton, Lorraine Dearden, Laura van der Erve. 2017. *Higher Education Funding in England: Past, Present and Options for the Future*, IFS Briefing Note BN211 (London: Institute for Fiscal Studies) <<https://www.ifs.org.uk/uploads/publications/bns/BN211.pdf>> [accessed 18 June 2018]

Belfiore, Eleonora. 2013. 'The Humanities and Open-Access Publishing: A New

Paradigm of Value?’, in *Humanities in the Twenty-First Century: Beyond Utility and Markets*, ed. by Eleonora Belfiore and Anna Rosser Upchurch (Basingstoke: Palgrave), pp. 195–215

Bell, Kirsten. 2018. ““Misleading Metrics” and the Ecology of Scholarly Publishing’, in *Predatory Publishing*, ed. by punctum books (Coventry: Post Office Press, Rope Press and punctum books) <<https://doi.org/10.17613/M6N58CK3D>>

Bell, Kirsten, and Judith Green. 2016. ‘On the Perils of Invoking Neoliberalism in Public Health Critique’, *Critical Public Health*, 26(3): 239–43 <<https://doi.org/10.1080/09581596.2016.1144872>>

Bence, Valerie, and Charles Oppenheim. 2005. ‘The Evolution of the UK’s Research Assessment Exercise: Publications, Performance and Perceptions’, *Journal of Educational Administration and History*, 37(2): 137–55 <<https://doi.org/10.1080/00220620500211189>>

Benkler, Yochai. 2002. ‘Coase’s Penguin, or, Linux and “The Nature of the Firm”’, *Yale Law Journal*, 112(3) <http://www.yalelawjournal.org/pdf/354_t5aih5i1.pdf> [accessed 18 June 2018]

——— 2006. *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven, CT; London: Yale University Press)

Bergson, Henri. 2002. *Key Writings*, ed. by Keith Ansell Pearson and John Mullarkey (London: Continuum)

Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. 2003. ‘Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities’ <<https://openaccess.mpg.de/Berlin-Declaration>> [accessed 19 June 2018]

Berlin, Isaiah. 2002 [1958]. ‘Two Concepts of Liberty’, in *Liberty*, by Isaiah Berlin (Oxford: Oxford University Press)

——— 2002 [1969]. ‘Introduction [to Five Essays on Liberty]’, in *Liberty*, by Isaiah Berlin (Oxford: Oxford University Press)

- Berners-Lee, Tim. 2000. *Weaving the Web: The Past, Present and Future of the World Wide Web By Its Inventor* (London: Harper)
- Bhaskar, Michael. 2013. *The Content Machine: Towards a Theory of Publishing from the Printing Press to the Digital Network* (London: Anthem)
- Bieling, Hans-Jürgen. 2006. 'Neoliberalism and Communitarianism: Social Conditions, Discourses and Politics', in *Neoliberal Hegemony: A Global Critique*, ed. by Dieter Plehwe, Bernhard Walpen, and Gisela Neunhöffer (Abingdon: Routledge)
- Bijker, Wiebe E. 2011. 'Towards a Knowledge Commons by Recognizing the Plurality of Knowledge—Experiences with Democratic Governance of Science and Technology' [conference presentation], *IASC Conference*, Hyderabad, 2011 <<http://iasc2011.fes.org.in/papers/docs/1326/submission/original/1326.pdf>> [accessed 9 August 2018]
- Birchall, Clare. 2014. 'Radical Transparency?', *Cultural Studies ↔ Critical Methodologies*, 14(1): 77–88 <<https://doi.org/10.1177/1532708613517442>>
- Birkbeck. [n.d.]. 'History of Birkbeck' <<http://www.bbk.ac.uk/about-us/history>> [accessed 29 August 2018]
- Biswas-Diener, Robert, and Rajiv S. Jhangiani. 2017. 'Introduction to Open', in *Open: The Philosophy and Practices That are Revolutionizing Education and Science*, Rajiv S. Jhangiani and Robert Biswas-Diener (London: Ubiquity Press) <<https://doi.org/10.5334/bbc.a>>
- Bivens-Tatum, Wayne. 2014. 'Reactionary Rhetoric Against Open Access Publishing', *tripleC*, 12(2) <<https://doi.org/10.31269/triplec.v12i2.617>>
- Björk, Bo-Christer. 2017. 'Growth of Hybrid Open Access, 2009–2016', *PeerJ*, 5: e3878. <<https://doi.org/10.7717/peerj.3878>>
- 2018. 'Evolution of the Scholarly Mega-Journal, 2006–2017', *PeerJ*, 6: e4357 <<https://doi.org/10.7717/peerj.4357>>
- Black, Alistair. 2000. *The Public Library in Britain 1914–2000* (London: The British

Library)

Black, A., S. Pepper, and K. Bagshaw. 2009. *Books, Buildings and Social Engineering: Early Public Libraries in Britain from Past to Present* (Farnham: Ashgate)

Blackburn, Lucy Hunter. 2018. 'Student Support in Wales: A Case of Progressive Universalism?', in *Higher Education Funding and Access in International Perspective*, ed. by Sheila Riddell, Sarah Minty, Elisabet Weedon, and Susan Whittaker (Bingley: Emerald), pp. 13–37

Blanden, J., and S. Machin. 2004. 'Inequality in the Expansion of Higher Education', *Scottish Journal of Political Economy*, 51(2): 230–49
<<https://doi.org/10.1111/j.0036-9292.2004.00304.x>>

Bockman, Johanna, and Gil Eyal. 2002. 'Eastern Europe as a Laboratory for Economic Knowledge: The Transnational Roots of Neoliberalism', *American Journal of Sociology*, 108(2): 310–52 <<https://doi.org/10.1086/344411>>

Bodó, Balázs. 2018. 'Library Genesis in Numbers: Mapping the Underground Flow of Knowledge', in *Shadow Libraries: Access to Knowledge in Global Higher Education*, ed by. Joe Karaganis (Cambridge, MA: MIT Press)

——— 2018a. 'The Genesis of Library Genesis: The Birth of a Global Scholarly Shadow Library', in *Shadow Libraries: Access to Knowledge in Global Higher Education*, ed by. Joe Karaganis (Cambridge, MA: MIT Press)

Bohannon, John. 2016. 'The Frustrated Science Student Behind Sci-Hub', *Science*, 352(6285): 511 <<https://doi.org/10.1126/science.352.6285.511>>

——— 2016a. 'Who's Downloading Pirated Papers? Everyone', *Science* [News], 28 April 2016 <<http://www.sciencemag.org/news/2016/04/whos-downloading-pirated-papers-everyone>> [accessed 18 June 2018]

Böhm, Franz, Walter Eucken, and Hans Großmann-Doerth. 2017 [1936]. 'The "Ordo Manifesto" of 1936', in *The Birth of Austerity: German Ordoliberalism and Contemporary Neoliberalism*, ed. by Thomas Biebricher and Frieder Vogelmann (London: Rowman and Littlefield), pp. 27–39

Bolick, Josh, Ada Emmett, Marc Greenberg, Town Peterson, and Brian Rosenblum. 2017. 'Moving from Colonialism and Paternalism to Equity and Cooperation in Scholarly Communication', *OAnarchy* [blog], 20 April 2017

<<https://oanarchy.wordpress.com/2017/04/20/moving-from-colonialism-and-paternalism-to-equity-and-cooperation-in-scholarly-communication/>> [accessed 18 June 2018]

Boliver, Vikki. 2011. 'Expansion, Differentiation, and the Persistence of Social Class Inequalities in British Higher Education', *Higher Education*, 61(3): 229–42 <<https://doi.org/10.1007/s10734-010-9374-y>>

Bollier, David. 2004. 'Defending the Scholarly Commons' [conference paper], *Research, Funding and the Public Good: A Scholarly Communications Event*, Georgetown University, Washington, D.C., 16 November 2004 <<http://hdl.handle.net/10535/4962>> [accessed 18 June 2018]

——— 2010. 'Academia as a Commons: How Open Technologies Can Help Higher Education Expand Collaboration, Innovation and Public Access to Knowledge' [conference paper], Robert Frost Library, University of Massachusetts, 26 April 2010 <<http://hdl.handle.net/10535/5805>> [accessed 18 June 2018]

——— 2011. 'The Commons, Short and Sweet' <<http://www.bollier.org/commons-short-and-sweet>> [accessed 18 June 2018]

——— 2011a. 'The Growth of the Commons Paradigm', in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)

Bollier, David, and Silke Helfrich (eds). 2012. *The Wealth of the Commons: A World Beyond Market and State* (Amherst, MA: Levellers Press)

Bolton, Paul. 2015. *Tuition Fee Statistics* (London: House of Commons Library) <<http://researchbriefings.files.parliament.uk/documents/SN00917/SN00917.pdf>> [accessed 18 June 2018]

Bonefeld, Werner. 2012. 'Freedom and the Strong State: On German Ordoliberalism', *New Political Economy*, 17(5)

<<https://doi.org/10.1080/13563467.2012.656082>>

Borgman, Christine L. 1990. 'Editor's Introduction', in *Scholarly Communication and Bibliometrics*, ed. by Christine L. Borgman (Newbury Park, CA: Sage), pp. 10–27

Bornmann, L., and R. Mutz. 2015. 'Growth Rates of Modern Science: A Bibliometric Analysis Based on the Number of Publications and Cited References', *Journal of the Association for Information Science and Technology*, 66(11): 2215–22 <<https://doi.org/10.1002/asi.23329>>

Borras Jr., Saturnino M., Ruth Hall, Ian Scoones, Ben White, and Wendy Wolford. 2011. 'Towards a Better Understanding of Global Land Grabbing: An Editorial Introduction', *Journal of Peasant Studies*, 38(2): 209–16 <<https://doi.org/10.1080/03066150.2011.559005>>

Borrits, Benoît. 2016. 'Cooperative And Common Ownership', *Workerscontrol.net*, 23 May 2016 <<http://www.workerscontrol.net/authors/cooperative-and-common-ownership>> [accessed 19 June 2018]

Borsook, Paulina. 2000. *Cyberselfish: A Critical Romp Through the Terribly Libertarian Culture of High Tech* (New York: Public Affairs)

Bosman, Jeroen, Ian Bruno, Chris Chapman, Bastian Greshake Tzovaras, Nate Jacobs, Bianca Kramer, Maryann Martone, Fiona Murphy, Paul O'Donnell, Michael Bar-Sinai, Stephanie Hagstrom, Daniel Josh Utley, and Lusia Veksler. 2017. 'The Scholarly Commons – Principles and Practices To Guide Research Communication', *Open Science Framework* <<https://osf.io/kbuq6/>> [accessed 19 June 2018]

Bothwell, Ellie. 2018. 'Don't Get Comfortable: The Rise of the Precarious Academy', *Times Higher Education*, 2 August 2018 <<https://www.timeshighereducation.com/features/dont-get-comfortable-the-rise-of-the-precarious-academy>> [accessed 2 August 2018]

Bourdieu, Pierre. 1977. *Outline of a Theory of Practice* (Cambridge: Cambridge University Press)

Boyd, Catherine. 2018. 'A Beginner's Guide to the Office for Students', *WonkHE*, 8

January 2018 <<https://wonkhe.com/blogs/a-beginners-guide-to-the-office-for-students/>> [accessed 18 June 2018]

Boyle, James. 2003. 'The Second Enclosure Movement And The Construction Of The Public Domain', *Law and Contemporary Problems*, 66(1–2): 33–74 <<https://scholarship.law.duke.edu/lcp/vol66/iss1/2/>> [accessed 9 August 2018]

Brembs, Bjoern. 2016. 'Sci-Hub as Necessary, Effective Civil Disobedience', *bjoern@brembs@net blog*, February 25 2016 <<http://bjoern.brembs.net/2016/02/sci-hub-as-necessary-effective-civil-disobedience/>> [accessed 19 June 2018]

Brennan, J. 2012. *Libertarianism: What Everyone Needs to Know* (Oxford: Oxford University Press)

Brenner, Neil, and Nik Theodore. 2002. 'Cities and the Geographies of "Actually Existing Neoliberal-ism"', *Antipode*, 34(3): 349–79 <<https://doi.org/10.1111/1467-8330.00246>>

British Academy. [2018]. *The Landscape for Humanities and Social Sciences in Higher Education: The Current Picture* (London: British Academy) <https://www.britac.ac.uk/sites/default/files/TheLandscapeForHumanitiesAndSocialSciencesInHigherEducation_0.pdf> [accessed 19 June 2018]

Brock, W. H. 1980. 'The Development of Commercial Scientific Journals in Victorian Britain', in *Development of Science Publishing in Europe*, ed. by A. J. Meadows (Amsterdam: Elsevier)

Brock, W. H., and A. J. Meadows. 1998. *The Lamp of Learning: Two Centuries of Publishing at Taylor & Francis*, 2nd edn (London: Taylor & Francis)

Brown, Patrick O., Diane Cabell, Aravinda Chakravarti, Barbara Cohen, Tony Delamothe, Michael Eisen, Les Grivell, Jean-Claude Guédon, R. Scott Hawley, Richard K. Johnson, Marc W. Kirschner, David Lipman, Arnold P. Lutzker, Elizabeth Marincola, Richard J. Roberts, Gerald M. Rubin, Robert Schloegl, Vivian Siegel, Anthony D. So, Peter Suber, Harold E. Varmus, Jan Velterop, Mark J. Walport, and Linda Watson. 2003. 'Bethesda Statement on Open Access Publishing' <<http://www.earlham.edu/~peters/fos/bethesda.htm>> [accessed 19 June 2018]

- Brown, Roger (ed.). 2011. *Higher Education and the Market* (New York: Routledge)
- Brown, Roger, and Helen Carasso. 2013. *Everything For Sale? The Marketisation of UK Higher Education* (Abingdon: Routledge)
- Brown, Wendy. 2015. *Undoing the Demos* (New York: Zone Books)
- Browne, John. 2010. *Securing a Sustainable Future for Higher Education: An Independent Review of Higher Education Funding & Student Finance*
<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/422565/bis-10-1208-securing-sustainable-higher-education-browne-report.pdf>
[accessed 18 June 2018]
- Bruce, Tony. 2012. *Universities and Constitutional Change in the UK: The Impact of Devolution on the Higher Education Sector* (Oxford: HEPI)
<<http://www.hepi.ac.uk/wp-content/uploads/2014/02/Devolution-Report-full-and-final.docx>> [accessed 18 June 2018]
- Buchanan, James. 1965. 'An Economic Theory of Clubs', *Economica*, 32(125): 1–14
- Bunce, Louise, Amy Baird, and Siân E. Jones. 2016. 'The Student-as-Consumer Approach in Higher Education and its Effects on Academic Performance', *Studies in Higher Education*, 42(11): 1958–78
<<https://doi.org/10.1080/03075079.2015.1127908>>
- Busch, Lawrence. 2017. *Knowledge for Sale: The Neoliberal Takeover of Higher Education* (Cambridge, MA: MIT Press)
- Butler, Eamonn. 2015. 'The End of Local Authority Libraries', *Adam Smith Institute*, 3 March 2015 <<https://www.adamsmith.org/blog/media-culture/the-end-of-local-authority-libraries>> [accessed 19 June 2018]
- Byfield, Bruce. 2009. 'Richard Stallman, Leadership, and Sexism', *Datamation*, 20 July 2009 <<https://www.datamation.com/osrc/article.php/3830651/Richard-Stallman-Leadership-and-Sexism.htm>> [accessed 18 June 2018]
- Cabanac, G. 2016. 'Bibliogifts in LibGen? A Study of a Text-Sharing Platform

Driven by Biblioleaks and Crowdsourcing’, *Journal of the Association for Information Science and Technology*, 67(4): 874–84
<<https://doi.org/10.1002/asi.23445>>

Cadwalladr, Carole. 2017. ‘The Great British Brexit Robbery: How Our Democracy Was Hijacked’, *Observer*, 7 May 2017
<<https://www.theguardian.com/technology/2017/may/07/the-great-british-brexit-robbery-hijacked-democracy>> [accessed 18 June 2018]

——— 2017a. ‘Trump, Assange, Bannon, Farage... Bound Together in an Unholy Alliance’, *Guardian*, 29 October 2017
<<https://www.theguardian.com/commentisfree/2017/oct/28/trump-assange-bannon-farage-bound-together-in-unholy-alliance>> [accessed 18 June 2018]

——— 2017b. ‘Vote Leave Donations: The Dark Ads, the Mystery “Letter” – and Brexit’s Online Guru’, *Observer*, 25 November 2017
<<https://www.theguardian.com/politics/2017/nov/25/vote-leave-dominic-cummings-online-guru-mystery-letter-dark-ads>> [accessed 18 June 2018]

Cahn, Robert W. 1994. ‘The Origins of Pergamon Press: Rosbaud and Maxwell’, *European Review*, 2(1): 37–42 <<https://doi.org/10.1017/S1062798700000879>>

Cairney, Paul. 2012. *Understanding Public Policy: Theories and Issues* (Basingstoke: Palgrave)

Çalışkan, Koray, and Michel Callon. 2009. ‘Economization, Part 1: Shifting Attention From the Economy Towards Processes of Economization’, *Economy and Society*, 38(3), 369–98 <<https://doi.org/10.1080/03085140903020580>>

Callender, Claire. 2011. ‘UK: Government Reforms Will Decrease Social Mobility’, *University World News*, 4 December 2011
<<http://www.universityworldnews.com/article.php?story=20111202221307320>>
[accessed 18 June 2018]

——— 2017. ‘Fear of Debt Really is Deterring the Poorest From University’, *WonkHE*, 6 June 2017 <<http://wonkhe.com/blogs/comment-fear-of-debt-is-deterring-the-poorest-from-university/>> [accessed 18 June 2018]

Callender, Claire, and Geoff Mason. 2017. *Does Student Loan Debt Deter Higher Education Participation? New Evidence from England* (London: Centre for Learning and Life Chances in Knowledge Economies and Societies)
<<http://www.llakes.ac.uk/sites/default/files/58.%20Callender%20and%20Mason.pdf>> [accessed 18 June 2018]

Callon, Michel (ed.). 1998. *The Laws of the Markets* (Oxford: Blackwell)

Campaign for Freedom of Information (CFOI). 2018. “‘Get it Minuted Campaign’ Launched’ <<https://www.cfoi.org.uk/2018/01/get-it-minuted-campaign-launched/>> [accessed 18 June 2018]

Canagarajah, A. Suresh. 2002. *A Geopolitics of Academic Writing* (Pittsburgh: University of Pittsburgh Press)

Carpenter, Kristen A., Sonia K. Katyal, and Angela R. Riley. 2009. ‘In Defense of Property’, *Yale Law Journal*, 118(6): 1022–1125
<<https://www.yalelawjournal.org/article/in-defense-of-property>> [accessed 18 June 2018]

Carrington, Damian. 2015. ‘Wellcome Trust Defies Campaigners to Increase Fossil Fuel Investment’, *Guardian*, 28 December 2015
<<https://www.theguardian.com/environment/2015/dec/28/wellcome-trust-defies-campaigners-to-increase-investment-in-fossil-fuels>> [accessed 18 June 2018]

Carswell, John. 1986. *Government and the Universities in Britain: Programme and Performance 1960–1980* (Cambridge: Cambridge University Press)

Ceruzzi, Paul E. 2003. *A History of Modern Computing*, 2nd edn (Cambridge, MA: MIT Press)

——— 2012. *Computing: A Concise History* (Cambridge, MA: MIT Press)

Champieux, Robin, Bianca Kramer, Jeroen Bosman, Ian Bruno, Amy Buckland, Sarah Callaghan, Chris Chapman, Stephanie Hagstrom, MaryAnn E. Martone, and Daniel Paul O’Donnell. 2016. ‘Finding the Principles of the Commons: A Report of the Force11 Scholarly Communications Working Group’, *Collaborative Librarianship*, 8(2): 74–79

<<http://digitalcommons.du.edu/collaborativelibrarianship/vol8/iss2/5>> [accessed 18 June 2018]

Chan, Leslie, and Sely Costa. 2004. 'Participation in the Global Knowledge Commons: Challenges and Opportunities for Research Dissemination in Developing Countries', *New Library World*, 106(3/4): 141–63
<<https://doi.org/10.1108/03074800510587354>>

Chan, Leslie, Darius Cuplinskas, Michael Eisen, Fred Friend, Yana Genova, Jean-Claude Guédon, Melissa Hagemann, Stevan Harnad, Rick Johnson, Rima Kupryte, Manfredi La Manna, István Rév, Monika Segbert, Sidnei de Souza, Peter Suber, and Jan Velterop. 2002. 'Budapest Open Access Initiative'
<<http://www.budapestopenaccessinitiative.org/read>> [accessed 18 June 2018]

Chan, Leslie, Barbara Kirsop, and Subbiah Arunachalam. 2011. 'Towards Open and Equitable Access to Research and Knowledge for Development', *PLOS Medicine*, 8(3): e1001016 <<https://doi.org/10.1371/journal.pmed.1001016>>

Chang, David A. 2011. 'Enclosures of Land and Sovereignty: The Allotment of American Indian Lands', *Radical History Review*, 2011(109): 108–19
<<https://doi.org/10.1215/01636545-2010-018>>

Childs, David. 2012. *Britain Since 1945: A Political History*, 7th edn (Abingdon: Routledge)

Chmielewski, Adam, and Karl Popper. 1999. 'The Future is Open: A Conversation with Karl Popper', in *Popper's Open Society After Fifty Years*, ed. by Ian Jarvie and Sandra Pralong (London: Routledge)

Christen, Kim. 2012. 'Does Information Really Want to Be Free?: Indigenous Knowledge Systems and the Politics of Open Access', *International Journal of Communication*, 6: 2870–93 <<http://ijoc.org/index.php/ijoc/article/view/1618>> [accessed 29 August 2018]

Christensen, Clayton M., and Michael E. Raynor. 2003. *The Innovator's Solution: Creating and Sustaining Successful Growth* (Boston, MA: Harvard Business Review Press)

- Chuen, Lorraine. 2016. 'Whose Utopia? The Need for Meaningful Diversity and Human-Centred Design When Imagining a "Scholarly Commons"', *Medium*, 9 March 2016 <https://medium.com/@lorraine_chu3n/whose-utopia-a5738dfb142b> [accessed 18 June 2018]
- 2018. 'Copyright as a Colonizer's Tool—Lessons From the 2018 #ccsummit', *Medium*, 17 April 2018 <https://medium.com/@lorraine_chu3n/copyright-as-a-colonizers-tool-lessons-from-the-2018-ccsummit-7677963d798a> [accessed 2 July 2018]
- Cifor, Marika, and Jamie A. Lee. 2017. 'Towards an Archival Critique: Opening Possibilities for Addressing Neoliberalism in the Archival Field', *Journal of Critical Library and Information Studies*, 1(1) <<https://doi.org/10.24242/jclis.v1i1.10>>
- Clark, Ian. 2016. 'The Digital Divide in the Post-Snowden Era', *Journal of Radical Librarianship*, 2: 1–32
<<https://journal.radicalibrarianship.org/index.php/journal/article/view/12>>
[accessed 18 June 2018]
- Cohn, Cindy. 2018. 'John Perry Barlow, Internet Pioneer, 1947–2018', *Electronic Frontier Foundation*, 7 February 2018
<<https://www.eff.org/deeplinks/2018/02/john-perry-barlow-internet-pioneer-1947-2018>> [accessed 18 June 2018]
- Coleman, Gabriella. 2009. 'Code is Speech', *Cultural Anthropology*, 24(3): 420–54
<<https://doi.org/10.1111/j.1548-1360.2009.01036.x>>
- 2012. *Coding Freedom: The Ethics and Aesthetics of Hacking* (Princeton: Princeton University Press)
- Coleman, Sterling Joseph. 2005. 'The British Council and Unesco in Ethiopia: A Comparison of Linear and Cyclical Patterns of Librarianship Development', *Library History*, 21(2): 121–30 <<https://doi.org/10.1179/002423005x44952>>
- Collier, Andrew. 2007. 'Power_{1.5} and the Weakness of Liberalism', *Journal of Critical Realism*, 6(1), 111–16 <<https://doi.org/10.1558/jocr.2007.v6i1.111>>
- Collini, Stefan. 2010. 'Browne's Gamble', *London Review of Books*, 18 October

2010 <<https://www.lrb.co.uk/v32/n21/stefan-collini/brownes-gamble>> [accessed 18 June 2018]

——— 2012. *What Are Universities For?* (London: Penguin)

Collins, Harry. 2010. *Tacit and Explicit Knowledge* (Chicago: University of Chicago Press)

Connell, Raewyn W. 2007. *Southern Theory: Social Science And The Global Dynamics Of Knowledge* (Cambridge: Polity Press)

Connell, Raewyn, and Nour Dados. 2014. 'Where In the World Does Neoliberalism Come From? The Market Agenda in Southern Perspective', *Theory and Society*, 43(2): 117–38 <<https://doi.org/10.1007/s11186-014-9212-9>>

Cook, Dan. 2013. *Realising the Cooperative University* (Manchester: Cooperative College)

Cooke, Nicole A., and Miriam E. Sweeney (eds). 2017. *Teaching for Justice: Implementing Social Justice in the LIS Classroom* (Sacramento, CA: Library Juice Press)

Corrall, Sheila, and Stephen Pinfield. 2014. 'Coherence of "Open" Initiatives in Higher Education and Research: Framing a Policy Agenda' [conference paper], *iConference*, Berlin, 4–7 March 2014 <<http://hdl.handle.net/2142/47316>> [accessed 19 June 2018]

Corsín Jiménez, Alberto, Dominic Boyer, John Hartigan, and Marisol de la Cadena. 2015. 'Open Access: A Collective Ecology for AAA Publishing in the Digital Age', *Cultural Anthropology*, 27 May 2015. <<https://culanth.org/fieldsights/684-open-access-a-collective-ecology-for-aaa-publishing-in-the-digital-age>> [accessed 4 July 2018]

Corsín Jiménez, Alberto, John Willinsky, Dominic Boyer, Giovanni da Col, and Alex Golub. 2015a. 'Why an Open Access Publishing Cooperative Can Work: A Proposal for the AAA's Journal Portfolio', *HAU: Journal of Ethnographic Theory*, 5(2): v–viii <<https://doi.org/10.14318/hau5.2.002>>

Council of the European Union. 2016. *Council Conclusions On The Transition Towards An Open Science System*, 9526/16, RECH 208, TELECOM 100 <<http://data.consilium.europa.eu/doc/document/ST-9526-2016-INIT/en/pdf>> [accessed 19 June 2018]

Courea, Eleni. 2018. 'Open University Axes 10 Degree Programmes', *Research Professional*, 6 June 2018 <<https://www.researchprofessional.com/0/rr/news/uk/universities/2018/6/Open-University-axes-10-degree-programmes.html>> [accessed 9 August 2018]

Court, Anthony. [n.d.]. 'Hannah Arendt's Theory of Totalitarianism – Part Two', *Rozenberg Quarterly* <<http://rozenbergquarterly.com/hannah-arendts-theory-of-totalitarianism-part-two/>> [accessed 18 June 2018]

Cox, Brian. 2002. 'The Pergamon Phenomenon 1951–1991: Robert Maxwell and Scientific Publishing', *Learned Publishing*, 15(4): 273–78 <<https://doi.org/10.1087/095315102760319233>>

Craig, Carys J., Joseph F. Turcotte, and Rosemary J. Coombe. 2011. 'What's Feminist About Open Access? A Relational Approach to Copyright in the Academy', *feminists@law*, 1(1) <<http://journals.kent.ac.uk/index.php/feministsatlaw/article/view/7>> [accessed 18 June 2018]

Cram, Jennifer. 1993. 'Colonialism and Libraries in Third World Africa', *The Australian Library Journal*, 42(1): 13–20 <<https://doi.org/10.1080/00049670.1993.10755621>>

Crawford, Elisabeth. 1992. *Nationalism and Internationalism in Science 1880–1939: Four Studies of the Nobel Population* (Cambridge: Cambridge University Press)

Crawford, Walt. 2017. *GOAJ2: Gold Open Access Journals 2011–2016* (Livermore, CA: Cites & Insights Books) <<https://waltcrawford.name/goaj2.pdf>> [accessed 18 June 2018]

——— 2018. *GOAJ3: Gold Open Access Journals 2012–2017* (Livermore, CA: Cites

- & Insights Books) <<https://waltcrawford.name/goaj3.pdf>> [accessed 18 June 2018]
- Creative Commons. [n.d.]. 'History' <<https://creativecommons.org/about/history>> [accessed 18 June 2018]
- Crider, Cori. 2016. 'Government Secrecy in Renditions Prosecution Challenged', *Scottish Legal News*, 23 August 2016
<<http://www.scottishlegal.com/article/government-secrecy-in-renditions-prosecution-challenged>> [accessed 18 June 2018]
- Crossick, Geoffrey. 2015. *Monographs and Open Access: A Report to HEFCE* (London: HEFCE)
<http://www.hefce.ac.uk/media/hefce/content/pubs/indirreports/2015/Monographs.and.open.access/2014_monographs.pdf> [accessed 18 June 2018]
- Crystal, David. 1997. *English as a Global Language* (Cambridge: Cambridge University Press)
- Dahl, Richard. 2010. 'Greenwashing: Do You Know What You're Buying?', *Environmental Health Perspectives*, 118(6): A246–52
<<https://doi.org/10.1289/ehp.118-a246>>
- Dandridge, Nicola. 2018. 'How OfS Will Address Value for Money', *WonkHE*, 3 June 2018 <<https://wonkhe.com/blogs/addressing-value-for-money-at-the-ofs/>> [accessed 18 June 2018]
- Daunton, Martin (ed). 2005. *The Organisation of Knowledge in Victorian Britain* (Oxford: Oxford University Press)
- Davies, William. 2014. *The Limits of Neoliberalism* (London: SAGE)
- Davis, Philip M. 2009. 'How the Media Frames "Open Access"', *Journal of Electronic Publishing*, (12)1 <<https://doi.org/10.3998/3336451.0012.101>>
- De Angelis, Massimo. 2012. 'Crises, Capital and Co-optation: Does Capital Need a Commons Fix?', in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)
- De Castro, Pablo. 2015. 'The OpenAIRE2020 FP7 Post-Grant Open Access Pilot:

Implementing a European-Wide Funding Initiative for Open Access Publishing Costs', *Information Services & Use*, 35(4): 235–41 <<https://doi.org/10.3233/ISU-150786>>

Dedrick, Jason, and Joel West. 2007. 'Movement Ideology vs. User Pragmatism in the Organizational Adoption of Open Source Software', in *Computerization Movements and Technology Diffusion: From Mainframes to Ubiquitous Computing*, ed. by Kenneth L. Kraemer and Margaret Elliott (Medford, NJ: Information Today)

Dekker, Sander. 2014. 'Open Access to Publications' <<https://www.government.nl/documents/parliamentary-documents/2014/01/21/open-access-to-publications>> [accessed 18 June 2018]

Delfanti, Alessandro. 2013. *Biohackers: The Politics of Open Science* (London: Pluto Press) <<https://escholarship.org/uc/item/5fq395w7>> [accessed 18 June 2018]

De Los Arcos, Beatriz, and Martin Weller. 2018. 'A Tale of Two Globes: Exploring the North/South Divide in Engagement with Open Educational Resources', in *Open Divide: Critical Studies on Open Access*, ed. by Joachim Schöpfel and Ulrich Herb (Sacramento, CA: Library Juice Press) pp. 147–55

Denord, Francois. 2009. 'French Neoliberalism and its Divisions', in *The Road from Mont Pelerin*, ed. by Philip Mirowski and Dieter Plehwe (Cambridge, MA; London: Harvard University Press)

Department for Business, Innovation and Skills. 2011. *Innovation and Research Strategy for Growth* (London: Department for Business, Innovation and Skills) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/32450/11-1387-innovation-and-research-strategy-for-growth.pdf> [accessed 18 June 2018]

——— 2013. 'Commons Select Committee: Open Access' <<https://www.parliament.uk/business/committees/committees-a-z/commons-select/business-innovation-and-skills/inquiries/parliament-2010/open-access/>> [accessed 18 June 2018]

——— 2015. *Fulfilling Our Potential: Teaching Excellence, Social Mobility and*

Student Choice (London: Department for Business, Innovation and Skills)
<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/474266/BIS-15-623-fulfilling-our-potential-teaching-excellence-social-mobility-and-student-choice-accessible.pdf> [accessed 18 June 2018]

— 2016. *Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice* (London: Department for Business, Innovation and Skills)
<<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/523546/bis-16-265-success-as-a-knowledge-economy-web.pdf> [accessed 18 June 2018]

Department for Culture, Media and Sport. 1999. *Libraries for All: Social Inclusion in Public Libraries* (London: Department for Culture, Media and Sport)
<http://webarchive.nationalarchives.gov.uk/+http://www.culture.gov.uk/images/publications/Social_Inclusion_PLibraries.pdf> [accessed 19 June 2018]

De Sousa Santos, Boaventura (ed.). 2008. *Another Knowledge Is Possible: Beyond Northern Epistemologies* (London: Verso)

De Sousa Santos, Boaventura. 2014. *Epistemologies of the South: Justice Against Epistemicide* (Boulder, CO: Paradigm)

Desouza, Kevin C., and Scott Paquette. 2011. *Knowledge Management: An Introduction* (New York: Neal-Schuman)

Deville, Joe. 2018. 'Open Access Publishing and the Future of the University', in *The Commons and Care*, ed. by Samuel A. Moore and Mattering Press (Coventry: Post Office Press and Rope Press), pp. 6–15 <<https://doi.org/10.17613/M6901ZF54>>

Devine, T. M. 2018. *The Scottish Clearances: A History of the Dispossessed, 1500–1900* (London: Allen Lane)

Dhamoon, Rita Kaur. 2015. 'A Feminist Approach To Decolonizing Anti-Racism: Rethinking Transnationalism, Intersectionality, And Settler Colonialism', *Feral Feminisms*, 4 <<http://www.feralfeminisms.com/rita-dhamoon/>> [accessed 19 June 2018]

- Diamond, Ian. 2016. *The Review of Higher Education Funding and Student Finance Arrangements in Wales* <<http://dera.ioe.ac.uk/id/eprint/27528>> [accessed 27 December 2018]
- Didegah, Fereshteh, and Ali Gazni. 2011. 'The Extent of Concentration in Journal Publishing', *Learned Publishing*, 24(4): 303–10 <<https://doi.org/10.1087/20110408>>
- DOAJ. 2018. [Home page], *doaj.org* <<https://doaj.org/>> [accessed 23 May 2018]
- Douglas, Kimberly. 1990. 'The Serials Crisis', *The Serials Librarian*, 18(1–2): 111–21 <https://doi.org/10.1300/J123v18n01_08>
- Dryden, Ashe. 2013. 'The Ethics of Unpaid Labor and the OSS Community', *ashedryden.com*, 13 November 2013 <<https://www.ashedryden.com/blog/the-ethics-of-unpaid-labor-and-the-oss-community>> [accessed 18 June 2018]
- Dubow, S. 2006. *A Commonwealth of Knowledge: Science, Sensibility, and White South Africa, 1820–2000* (Oxford: Oxford University Press)
- Duff, Wendy M., Andrew Flinn, Karen Emily Suurtamm, and David A. Wallace. 2013. 'Social Justice Impact of Archives: a Preliminary Investigation', *Archival Science*, 13(4): 317–48 <<https://doi.org/10.1007/s10502-012-9198-x>>
- Duranceau, Ellen Finnie. 2008. 'The "Wealth of Networks" and Institutional Repositories: MIT, DSpace, and the Future of the Scholarly Commons', *Library Trends*, 57(2): 244–61 <<https://doi.org/10.1353/lib.0.0030>>
- Dyhouse, Carol. 1995. *No Distinction of Sex? Women in British Universities, 1870–1939* (London: UCL Press)
- 2006. *Students: A Gendered History* (Abingdon: Routledge)
- Earney, Liam. 2017. 'Offsetting and its Discontents: Challenges and Opportunities of Open Access Offsetting Agreements', *Insights*, 30(1): 11–24 <<https://doi.org/10.1629/uksg.345>>
- 2018. 'National Licence Negotiations Advancing the Open Access Transition – a View From the UK', *Insights*, 31(11) <<https://doi.org/10.1629/uksg.412>>

- Easley, David, and Jon Kleinberg. 2010. *Networks, Crowds, and Markets: Reasoning About a Highly Connected World* (Cambridge: Cambridge University Press)
- Edwards, Paul N. 1996. *The Closed World: Computers and the Politics of Discourse in Cold War America* (Cambridge, MA: MIT Press)
- Eghbal, Nadia. 2016. *Roads and Bridges: The Unseen Labor Behind Our Digital Infrastructure* (New York: Ford Foundation)
 <<https://www.fordfoundation.org/library/reports-and-studies/roads-and-bridges-the-unseen-labor-behind-our-digital-infrastructure>> [accessed 18 June 2018]
- Eidlin, Fred. 2005. 'Popper's Social-Democratic Politics and Free-Market Liberalism', *Critical Review*, 17(1/2): 25–48
- ElSabry, ElHassan. 2017. 'Who Needs Access to Research? Exploring the Societal Impact of Open Access', *Revue française des sciences de l'information et de la communication* [En ligne], 11 <<https://doi.org/10.4000/rfsic.3271>>
- Else, Holly. 2017. 'How will Brexit Shape the European Research Landscape?', *Times Higher Education*, 14 September 2017
 <<https://www.timeshighereducation.com/features/how-will-brexit-shape-european-research-landscape>> [accessed 18 June 2018]
- EU2016. 2016. 'All European Scientific Articles To Be Freely Accessible By 2020', 27 May 2016
 <<https://www.politico.eu/wp-content/uploads/2016/05/NLopenaccess.pdf>> [accessed 18 June 2018]
- Eucken, Walter. 2004. *Grundsätze der Wirtschaftspolitik*, 7th edn (Tübingen: Mohr Siebert)
- 2017. 'Competition as the Basic Principle of the Economic Constitution', in *The Birth of Austerity: German Ordoliberalism and Contemporary Neoliberalism*, ed. by Thomas Biebricher and Frieder Vogelmann (London: Rowman and Littlefield), pp. 81–98
- European Commission. 2006. *Study on the Economic and Technical Evolution of the*

Scientific Publication Markets in Europe

<https://ec.europa.eu/research/openscience/pdf/openaccess/librarians_2006_scientific_pub_study.pdf> [accessed 9 August 2018]

—— 2012. *Towards Better Access to Scientific Information: Boosting the Benefits of Public Investments In Research*

<http://ec.europa.eu/research/science-society/document_library/pdf_06/era-communication-towards-better-access-to-scientific-information_en.pdf> [accessed 18 June 2018]

—— 2015. *Access to and Preservation of Scientific Information in Europe*

<http://ec.europa.eu/research/openscience/pdf/openaccess/npr_report.pdf> [accessed 18 June 2018]

—— 2018. ‘Commission Recommendation of 25.4.2018 on Access to and Preservation of Scientific Information’

<http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=51636> [accessed 18 June 2018]

Eve, Martin Paul. 2014. *Open Access and the Humanities: Contexts, Controversies and the Future* (Cambridge: Cambridge University Press)

<<http://cambridge.org/martineve>> [accessed 18 June 2018]

—— 2017. ‘Open Access in the United Kingdom’, in *Praxishandbuch Open Access*, ed. by Konstanze Söllner and Bernhard Mittermaier (De Gruyter)

<<http://eprints.bbk.ac.uk/id/eprint/16684>> [accessed 18 June 2018]

—— 2017a. ‘Openness, Politics and Power’, in *Mass Intellectuality and Democratic Leadership in Higher Education*, Richard Hall and Joss Winn (London: Bloomsbury)

—— 2017b. ‘Open Publication, Digital Abundance, and Scarce Labour’, *Journal of Scholarly Publishing*, 49(1) <<https://doi.org/10.3138/jsp.49.1.26>>

—— 2018. ‘Transparency Agendas Are Being Used to Legislate Against Consortial Open-Access Models Even Though It Has Good Cost Outcomes’, *MartinEve.com* [blog], 3 June 2018 <<https://www.martineve.com/2018/06/03/transparency-agendas->

[are-used-to-legislate-against-consortial-open-access-models/](#)> [accessed 29 August 2018]

Eve, Martin Paul, and Andy Byers. 2018. 'Janeway: A Scholarly Communications Platform', *Insights*, 31(15) <<https://doi.org/10.1629/uksg.396>>

Eve, Martin Paul, Saskia C. J. De Vries, and Johan Rooryck. 2017. 'The State of the Market, Offsetting Deals, and a Demonstrated Model for Fair Open Access with the Open Library of Humanities', in *Expanding Perspectives on Open Science: Communities, Cultures and Diversity in Concepts and Practices*, ed. by Leslie Chan and Fernando Loizides (Amsterdam: IOS Press) <<https://doi.org/10.3233/978-1-61499-769-6-118>>

Eve, Martin Paul, and Caroline Edwards. 2015. 'Opening the Open Library of Humanities', *Open Library of Humanities*, 1(1), p.e1 <<http://doi.org/10.16995/olh.46>>

Eve, Martin Paul, and Jonathan Gray (eds). Forthcoming [2019]. *Old Traditions and New Technologies: The Pasts, Presents, and Futures of Open Scholarly Communication* (Cambridge, MA: MIT Press)

Eve, Martin Paul, and Ernesto Priego. 2017. 'Who is Actually Harmed by Predatory Publishers?', *tripleC*, 15(2) <<https://doi.org/10.31269/triplec.v15i2.867>>

Exley, Sonia. 2017. 'A Country on Its Way to Full Privatisation? Private Schools and School Choice in England', in *Private Schools and School Choice in Compulsory Education: Global Change and National Challenge*, ed. by Thomas Koinzer, Rita Nikolai, and Florian Waldow (Wiesbaden: Springer), pp. 31–47

Fair Open Access Alliance. 2018. 'Public statement TTOA consortium', *FairOpenAccessAlliance.org*, 30 May 2018 <<https://www.fairopenaccess.org/2018/05/30/public-statement-ttoa-consortium/>> [accessed 18 June 2018]

Farrington, Dennis. 2015. 'Green Paper: Proposed Changes to Legislation', *WonkHE*, 14 December 2015 <<http://wonkhe.com/blogs/green-paper-legislation/>> [accessed 18 June 2018]

- Farrington, Dennis, and David Palfreyman. 2012. *The Law of Higher Education*, 2nd edn (Oxford: Oxford University Press)
- Farrow, Robert. 2015. 'Open Education and Critical Pedagogy', *Learning, Media and Technology*, 42(2): 130–46 <<http://oro.open.ac.uk/46662/>> [accessed 18 June 2018]
- Faulder, Sarah, and Shinwha Cha. 2014. 'Access to Research: The Experience of Implementing a Pilot in Public Libraries', *Learned Publishing*, 27(2): 85–92 <<https://doi.org/10.1087/20140202>>
- Fazackerley, Anna. 2018. 'Universities' League Table Obsession Triggers Mental Health Crisis Fears', *Guardian*, 12 June 2018 <<https://www.theguardian.com/education/2018/jun/12/university-mental-health-league-table-obsession>> [accessed 22 June 2018]
- Fecher, Benedikt, and Sascha Friesike. 2014. 'Open Science: One Term, Five Schools of Thought', in *Opening Science: The Evolving Guide on How the Internet is Changing Research, Collaboration and Scholarly Publishing*, ed. by Sönke Bartling and Sascha Friesike (Cham, Switzerland: Springer), pp. 17–47 <https://doi.org/10.1007/978-3-319-00026-8_2>
- Fecher, Benedikt, Sascha Friesike, Marcel Hebing, and Stephanie Linek. 2017. 'A Reputation Economy: How Individual Reward Considerations Trump Systemic Arguments for Open Access to Data', *Palgrave Communications*, 3: 17051 <<https://doi.org/10.1057/palcomms.2017.51>>
- Feldman, Zeena, and Marisol Sandoval. 2018. 'Metric Power and the Academic Self: Neoliberalism, Knowledge and Resistance in the British University', *tripleC*, 16(1) <<https://www.triple-c.at/index.php/tripleC/article/view/899>> [accessed 18 June 2018]
- Fielden, John, and Robin Middlehurst. 2017. *Alternative Providers of Higher Education: Issues For Policymakers* (London: Higher Education Policy Institute) <http://www.hepi.ac.uk/wp-content/uploads/2017/01/Hepi_The-alternative-providers-of-higher-education-Report-90-04_01_17-Screen2.pdf> [accessed 18 June 2018]

Finch Group. 2012. *Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications. Report of the Working Group on Expanding Access to Published Research Findings* <<https://www.acu.ac.uk/research-information-network/finch-report-final>> [accessed 19 June 2018]

——— 2013. *Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications: A Review of Progress in Implementing the Recommendations of the Finch Report* <<https://www.psa.ac.uk/sites/default/files/page-files/Finch%20Working%20Group%20Report%2C%20Oct%202013.pdf>> [accessed 18 June 2018]

Fiormonte, Domenico, and Ernesto Priego. 2016. 'Knowledge Monopolies and Global Academic Publishing', *The Winnower*, 4: e147220.00404 <<https://doi.org/10.15200/winn.147220.00404>>

Fiormonte, Domenico, Teresa Numerico, and Francesca Tomasi. 2015. *The Digital Humanist* (New York: punctum)

Fischer, Karin. 2009. 'The Influence of Neoliberals in Chile Before, During, and After Pinochet', in *The Road from Mont Pelerin*, ed. by Philip Mirowski and Dieter Plehwe (Cambridge, MA; London: Harvard University Press)

Fisher, Mark. 2009. *Capitalist Realism: Is There No Alternative?* (Winchester: Zero Books)

——— 2013. 'How to Kill a Zombie: Strategizing the End of Neoliberalism', *OpenDemocracy*, 18 July 2013 <<https://www.opendemocracy.net/mark-fisher/how-to-kill-zombie-strategizing-end-of-neoliberalism>> [accessed 18 June 2018]

Fitzpatrick, Elizabeth B. 2008. 'The Public Library as Instrument of Colonialism: The Case of the Netherlands East Indies', *Libraries & the Cultural Record*, 43(3): 270–85 <<http://www.jstor.org/stable/25549496>> [accessed 10 July 2016]

Fitzpatrick, Kathleen. Forthcoming [2019]. 'Not all Networks: Toward Open, Sustainable Research Communities', in *Old Traditions and New Technologies: The Pasts, Presents, and Futures of Open Scholarly Communication*, ed. by Martin Eve and Jonathan Gray (Cambridge, MA: MIT Press)

- Flaherty, Colleen. 2018. 'A Journal Implodes', *Inside Higher Ed*, 15 June 2018 <<https://www.insidehighered.com/news/2018/06/15/promising-open-access-anthropology-journal-moves-modified-subscription-service-amid>> [accessed 4 July 2018]
- Flood, Alison. 2017. 'Save Your Local! Should Volunteers Help Keep Our Public Libraries Open?', *Guardian*, 8 August 2017 <<https://www.theguardian.com/books/2017/aug/08/public-libraries-at-the-crossroads-should-volunteers-be-keeping-them-open>> [accessed 18 June 2018]
- Flor, Alexander Gonzalez. 2013. 'Exploring the Downside of Open Knowledge Resources: The Case of Indigenous Knowledge Systems and Practices in the Philippines', *Open Praxis*, 5(1): 75–80 <<https://doi.org/10.5944/openpraxis.5.1.15>>
- Floridi, Luciano. 2010. *Information: A Very Short Introduction* (Oxford: Oxford University Press)
- Flowerdew, John, and Yongyan Li. 2009. 'English or Chinese? The Trade-Off Between Local and International Publication Among Chinese Academics in the Humanities and Social Sciences', *Journal of Second Language Writing*, 18(1): 1–16 <<https://doi.org/10.1016/j.jslw.2008.09.005>>
- FORCE11. [n.d.]. 'About FORCE11' <<https://www.force11.org/about>> [accessed 18 June 2018]
- [n.d.].a. 'Scholarly Commons Working Group' <<https://www.force11.org/group/scholarly-commons-working-group>> [accessed 18 June 2018]
- [n.d.].b. 'The Scholarly Commons' <<http://scholarlycommons.org/>> [accessed 18 June 2018]
- 2011. 'FORCE11 Manifesto' <<https://www.force11.org/about/manifesto>> [accessed 18 June 2018]
- FORCE11 Scholarly Commons Working Group. 2017. 'Principles of the Scholarly Commons, Version 0.1.1.', *Zenodo* <<https://doi.org/10.5281/zenodo.569952>>

Former HAU Staff 7. 2018. 'Guest Post: An Open Letter from the Former HAU Staff 7', *Footnotes*, 13 June 2018 <<https://footnotesblog.com/2018/06/13/guest-post-an-open-letter-from-the-former-hau-staff-7/>> [accessed 4 July 2018]

Foskett, N. 2011. 'Markets, Government, Funding and the Marketisation of Higher Education', in *The Marketisation of Higher Education and the Student as Consumer*, ed. by Mike Molesworth, Richard Scullion, and Elizabeth Nixon (London: Routledge), pp. 25–38

Foucault, Michel. 2008. *The Birth of Biopolitics* (Basingstoke: Palgrave Macmillan)

Fox, Ruth, and Joel Blackwell. 2013. *The Devil is in the Detail: Parliament and Delegated Legislation* (London: Hansard Society)

Frantsvåg, Jan Erik. 2015. 'Going For True Gold: Why the Norwegian Research Council is Taking a Stand Against Hybrid OA Journals', *Digital Science Guest Blog*, 3 February 2015 <<https://www.digital-science.com/blog/guest/going-for-true-gold-why-the-norwegian-research-council-is-taking-a-stand-against-hybrid-oa-journals/>> [accessed 18 June 2018]

Fraser, Claire, Geoff Hill, Helen Snaith, and Jade Taffs. 2018. *Monitoring Sector Progress Towards Compliance with Funder Open Access Policies* (Bristol: Research England) <<https://re.ukri.org/documents/2018/research-england-open-access-report-pdf/>> [accessed 22 June 2018]

Frazier, Kenneth. 2001. 'The Librarians' Dilemma: Contemplating the Costs of the "Big Deal"', *D-Lib Magazine*, 7(3) <<http://www.dlib.org/dlib/march01/frazier/03frazier.html>> [accessed 4 July 2018]

Freedom Defined. 2008. 'Definition of Free Cultural Works v1.1', updated 26 September 2008 <<https://freedomdefined.org/Definition>> [accessed 18 June 2018]

Free Software Foundation. 2015. 'Free Software Definition' <<https://www.gnu.org/philosophy/free-sw.en.html>> [accessed 18 June 2018]

——— 2015a [1985]. 'The GNU Manifesto' <<https://www.gnu.org/gnu/manifesto.en.html>> [accessed 18 June 2018]

Friedman, Milton. 2002 [1962]. *Capitalism and Freedom* (Chicago: University of Chicago Press)

Frith, Lucy. 2015. 'The Changing National Health Service: Market-Based Reform and Morality; Comment on "Morality and Markets in the NHS"', *International Journal of Health Policy and Management*, 4(4): 253–55
<<https://doi.org/10.15171/ijhpm.2015.39>>

Frosio, Giancarlo F. 2014. 'Open Access Publishing: A Literature Review', CREATE Working Paper 2014/1. <<http://www.create.ac.uk/publications/000011>> [accessed 18 June 2018]

Fukuyama, Francis. 1992. *The End of History and the Last Man* (New York: Free Press)

Further and Higher Education Act 1992.
<<http://www.legislation.gov.uk/ukpga/1992/13/contents>> [accessed 18 June 2018]

FWF. [n.d.]. 'Open Access Policy for FWF-Funded Projects' <<https://www.fwf.ac.at/en/research-funding/open-access-policy/>> [accessed 18 June 2018]

Fyfe, Aileen. 2015. 'Journals, Learned Societies And Money: "Philosophical Transactions", ca. 1750–1900', *Notes and Records*, 69(3): 277–99
<<https://doi.org/10.1098/rsnr.2015.0032>>

Fyfe, Aileen, Kelly Coate, Stephen Curry, Stuart Lawson, Noah Moxham, and Camilla Mørk Røstvik. 2017. 'Untangling Academic Publishing: A History of the Relationship Between Commercial Interests, Academic Prestige and the Circulation of Research', briefing paper, University of St Andrews
<<http://hdl.handle.net/10023/10884>> [accessed 18 June 2018]

Fyfe, Aileen, Julie McDougall-Waters, and Noah Moxham. 2015. '350 Years of Scientific Periodicals', *Notes and Records*, 69(3): 227–39
<<https://doi.org/10.1098/rsnr.2015.0036>>

Gadd, Elizabeth. 2017. 'UK University Policy Approaches Towards the Copyright Ownership of Scholarly Works and the Future of Open Access', *Aslib Journal of Information Management*, 69(1): 95–114 <<https://doi.org/10.1108/AJIM-06-2016->

[0092](#)>

Gallacher, Jim, and David Raffe. 2011. 'Higher Education Policy in Post-Devolution UK: More Convergence Than Divergence?', *Journal of Education Policy*, 27(4): 467–90 <<https://doi.org/10.1080/02680939.2011.626080>>

Galloway, Alexander R. 2004. *Protocol: How Control Exists After Decentralization* (Cambridge, MA: MIT Press)

Gane, Nicholas. 2014. 'The Emergence of Neoliberalism: Thinking Through and Beyond Michel Foucault's Lectures on Biopolitics', *Theory, Culture & Society*, 31(4) 1–25 <<https://doi.org/10.1177/0263276413506944>>

Gartner. 2016. 'Gartner Says Chinese Smartphone Vendors Were Only Vendors in the Global Top Five to Increase Sales in the Third Quarter of 2016', *Gartner*, 17 November 2016 <<https://www.gartner.com/newsroom/id/3516317>> [accessed 18 June 2018]

Geek Feminism Wiki. [n.d.]. 'Richard Stallman', *Geek Feminism Wiki*, updated 7 January 2017 <http://geekfeminism.wikia.com/wiki/Richard_Stallman> [accessed 18 June 2018]

Geiger, Roger L. 2015. *The History of American Higher Education: Learning and Culture from the Founding to World War II* (Princeton: Princeton University Press)

Gentil-Beccot, Anne, Salvatore Mele, and Travis C. Brooks. 2009. 'Citing and Reading Behaviours in High-Energy Physics: How a Community Stopped Worrying about Journals and Learned to Love Repositories', *arXiv*, <<https://arxiv.org/abs/0906.5418>> [accessed 3 July 2018]

Gerber, David T. 1994. 'Constitutionalizing the Economy: German Neo-Liberalism, Competition Law and the "New" Europe', *The American Journal of Comparative Law*, 42(1): 25–84

Geuna, Aldo, and Alessandro Muscio. 2009. 'The Governance of University Knowledge Transfer: A Critical Review of the Literature', *Minerva*, 47(1): 93–114 <<https://doi.org/10.1007/s11024-009-9118-2>>

- Gewirtz, Sharon. 1998. 'Conceptualizing Social Justice in Education: Mapping the Territory', *Journal of Education Policy*, 13(4): 469–84
<<https://doi.org/10.1080/0268093980130402>>
- Ghamandi, Dave. 2017. 'Library Publishing for the 99%: Why Neoliberalism and Scholarly Publishing Need a Divorce' [conference paper], *Library Publishing Forum 2017*, Baltimore, MD, 20 March 2017 <<http://eprints.rclis.org/31122/>> [accessed 18 June 2018]
- Giddens, Anthony. 1998. *The Third Way: The Renewal of Social Democracy* (Cambridge: Polity)
- Gill, John. 2012. 'HE Bill "To Be Shelved Indefinitely"', *Times Higher Education*, 24 January 2012 <<https://www.timeshighereducation.com/news/he-bill-to-be-shelved-indefinitely/418801.article>> [accessed 18 June 2018]
- Giroux, Henry. 2014. *Neoliberalism's War on Higher Education* (Chicago: Haymarket Books)
- Glaser, April. 2018. 'The Incomplete Vision of John Perry Barlow', *Slate*, 8 February 2018 <<https://slate.com/technology/2018/02/john-perry-barlow-gave-internet-activists-only-half-the-mission-they-need.html>> [accessed 18 June 2018]
- Gleick, James. 2011. *The Information: A History, a Theory, a Flood* (London: Fourth Estate)
- Global Witness. 2017. 'Paradise Papers: UK Government Complicit in Global Secrecy Scandal Unless it Tackles Role of White-Collar Professionals and Tax Havens', *Global Witness*, 5 November 2017
<<https://www.globalwitness.org/en/press-releases/paradise-papers-uk-government-implicit-global-secrecy-scandal-unless-it-tackles-role-white-collar-professionals-and-tax-havens/>> [accessed 18 June 2018]
- Godard, François. 2013. "'The Road to Serfdom"'s Economic Worldview', *Critical Review*, 25(3–4): 364–85 <<https://doi.org/10.1080/08913811.2013.857468>>
- Golumbia, David. 2016. 'Marxism and Open Access in the Humanities: Turning Academic Labor against Itself', *Workplace: A Journal for Academic Labor*, 28: 74–

114 <<http://ices.library.ubc.ca/index.php/workplace/article/view/186213>> [accessed 18 June 2018]

Goodman, Dena. 1996. *The Republic of Letters: A Cultural History of the French Enlightenment* (Ithaca, NY: Cornell University Press)

Gordon, Simon. 2017. *Opening the British Mind* (London: UKIP Parliamentary Resource Unit)

<http://www.ukip.org/universities_are_ripping_students_off_and_closing_down_the_ir_minds> [accessed 18 June 2018]

Gowers, Tim. 2012. 'The Cost of Knowledge'

<<https://gowers.files.wordpress.com/2012/02/elsevierstatementfinal.pdf>> [accessed 18 June 2018]

Graf, Klaus, and Sanford Thatcher. 2012. 'Point & Counterpoint: Is CC BY the Best Open Access License?', *Journal of Librarianship and Scholarly Communication*, 1(1): eP1043 <<https://doi.org/10.7710/2162-3309.1043>>

Graham, M., S. A. Hale, and M. Stephens. 2011. *Geographies of the World's Knowledge*, ed. by C.M. Flick (London: Convoco! Edition)

<https://www.oii.ox.ac.uk/archive/downloads/publications/convoco_geographies_en.pdf> [accessed 18 June 2018]

Gray, John. 1976. 'The Liberalism of Karl Popper', *Government and Opposition*, 11(3): 337–56 <<https://doi.org/10.1111/j.1477-7053.1976.tb00010.x>>

Gray, Jonathan. 2014. 'Towards a Genealogy of Open Data' [conference paper], *General Conference of the European Consortium for Political Research*, Glasgow, 3–6 September 2014 <<https://doi.org/10.2139/ssrn.2605828>>

Greenberg, Daniel S. 2007. *Science for Sale: The Perils, Rewards, and Delusions of Campus Capitalism* (Chicago: Chicago University Press)

Greene, Margaret, and McMenemy, David. 2012. 'The Emergence and Impact of Neoliberal Ideology on UK Public Library Policy 1997–2010', in *Library and Information Science Trends and Research: Europe*, ed. by Amanda Spink and Jannica Heinström (Bingley: Emerald), pp. 13–41

Greener, Ian. 2005. 'The Potential of Path Dependence in Political Studies', *Politics*, 25(1): 62–72 <<https://doi.org/10.1111/j.1467-9256.2005.00230.x>>

Greer, Allan. 2012. 'Commons and Enclosure in the Colonization of North America', *American Historical Review*, 117(2) 365–86
<<https://doi.org/10.1086/ahr.117.2.365>>

Greshake, Bastian. 2016. 'Correlating the Sci-Hub Data with World Bank Indicators and Identifying Academic Use', *The Winnower*, 3: e146485.57797
<<https://doi.org/10.15200/winn.146485.57797>>

Gross, Alan G., Joseph E. Harmon, and Michael S. Reidy. 2002. *Communicating Science: The Scientific Article from the 17th Century to the Present* (West Lafayette, IN: Parlor Press)

Grove, Jack. 2016. 'Universities Confront 'Horrible' Figures on BME Promotion', *Times Higher Education*, 25 January 2016 <<https://www.timeshighereducation.com/news/universities-confront-horrifying-figures-bme-promotion>> [accessed 18 June 2018]

——— 2018. 'Half of UK Academics "Suffer Stress-Linked Mental Health Problems"', *Times Higher Education*, 6 July 2018
<<https://www.timeshighereducation.com/news/half-uk-academics-suffer-stress-linked-mental-health-problems>> [accessed 10 July 2018]

Gutierrez y Muhs, Gabriella, Yolanda Flores Niemann, Carmen G. Gonzalez, and Angela P. Harris. 2012. *Presumed Incompetent: The Intersections of Race and Class for Women in Academia* (Logan: Utah State University Press)

Gyimah, Sam. 2018. 'Research: Finance: Written question – 120236'
<<https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2017-12-19/120236/>> [accessed 18 June 2018]

Hafner, Katie, and Matthew Lyon. 1996. *Where Wizards Stay Up Late: The Origins of the Internet* (New York: Simon & Schuster)

Haider, Jutta. 2008. 'Open Access and Closed Discourses: Constructing Open

Access as a “Development” Issue’ (doctoral thesis, City University London) <<http://openaccess.city.ac.uk/id/eprint/8589>> [accessed 18 June 2018]

Hall, David, and Emanuele Lobina. 2005. ‘The Relative Efficiency of Public and Private Sector Water’, discussion paper, Public Services International Research Unit, University of Greenwich <<http://gala.gre.ac.uk/id/eprint/3628>> [accessed 18 June 2018]

Hall, F., and W. P. Watkins. 1937. *Co-operation* (Manchester: Co-operative Union)

Hall, Gary. 2012. ‘Pirate Radical Philosophy’, *Radical Philosophy*, 173. <<https://www.radicalphilosophyarchive.com/commentary/pirate-radical-philosophy-2>> [accessed 18 June 2018]

——— 2016. *The Uberfication of the University* (Minneapolis: University of Minnesota Press)

Hall, Richard. 2016. ‘Notes on Desire, Anxiety and Academic Luddism’, *Richard Hall’s Space* [blog], 1 June 2016 <<http://www.richard-hall.org/2016/06/01/notes-on-desire-anxiety-and-academic-luddism/>> [accessed 18 June 2018]

Hall, Richard, and Joss Winn (eds). 2017. *Mass Intellectuality and Democratic Leadership in Higher Education* (London: Bloomsbury)

——— 2017a. ‘Mass Intellectuality and Democratic Leadership in Higher Education’, in *Mass Intellectuality and Democratic Leadership in Higher Education*, ed. by Richard Hall and Joss Winn (London: Bloomsbury)

Hall, Suzanna. 2015. ‘Open Access and Civil Disobedience: What is the Relationship Between Hacktivism and the OA Movement?’ (master’s thesis, University of Sheffield) <https://dagda.shef.ac.uk/dispub/dissertations/2014-15/External/Hall_S.pdf> [accessed 18 June 2018]

Hammond, J. Daniel. 2007. ‘Markets, Politics, and Democracy at Chicago’, working paper, Wake Forest University <<https://ssrn.com/abstract=908269>> [accessed 18 June 2018]

Hardin, Garrett. 1968. ‘The Tragedy of the Commons’, *Science*, 162(3859): 1243–

48 <<https://doi.org/10.1126/science.162.3859.1243>>

Hardt, Michael, and Antonio Negri. 2000. *Empire* (Cambridge, MA: Harvard University Press)

Hartwell, Ronald M. 1995. *A History of the Mont Pelerin Society* (Indianapolis, IN: Liberty Fund)

Harvey, David. 2005. *A Brief History of Neoliberalism* (Oxford: Oxford University Press)

Hathcock, April. 2016. 'Making the Local Global: The Colonialism of Scholarly Communication', *At the Intersection*, 27 September 2016

<<https://aprilhathcock.wordpress.com/2016/09/27/making-the-local-global-the-colonialism-of-scholarly-communication/>> [accessed 18 June 2018]

Hathcock, April, and Guy Geltner. 2018. 'Clearing the Garden: ScholarlyHub as a New Non-Profit Digital Commons', *Insights*, 31, 6

<<http://doi.org/10.1629/uksg.398>>

Havergal, Chris. 2018. 'Sweden Cancels Elsevier Contract as Open-Access Dispute Spreads', *Times Higher Education*, 16 May 2018

<<https://www.timeshighereducation.com/news/sweden-cancels-elsevier-contract-open-access-dispute-spreads>> [accessed 18 June 2018]

Hay, C. 2006. 'Constructivist Institutionalism', in *The Oxford Handbook of Political Institutions*, ed. by R. Rhodes, S. Binder, and B. Rockman (Oxford: Oxford University Press)

Hayek, Friedrich August. 2001 [1944]. *The Road to Serfdom* (Abingdon: Routledge)

——— 2006 [1960]. *The Constitution of Liberty* (Abingdon: Routledge)

Hayes, Clayton, and Heidi Elaine Kelly. 2017. 'Who's Talking about Scholarly Communication? An Examination of Gender and Behavior on the SCHOLCOMM Listserv', *Journal of Librarianship and Scholarly Communication*, 5: eP2017

<<https://doi.org/10.7710/2162-3309.2017>>

HEFCE. 2010. *HEFCE Review of Jisc* (Bristol: HEFCE)

<https://www.jisc.ac.uk/sites/default/files/hefce_review_of_jisc.pdf> [accessed 19 June 2018]

— 2012. *Recurrent Grants and Student Number Controls for 2012–13* (Bristol: HEFCE)

<http://webarchive.nationalarchives.gov.uk/20180405122902/http://www.hefce.ac.uk/media/hefce/content/pubs/2012/201208/12_08_1123.pdf> [accessed 19 June 2018]

— 2015. *Policy for Open Access in the Post-2014 Research Excellence Framework, Updated July 2015* (Bristol: HEFCE)

<http://webarchive.nationalarchives.gov.uk/20180405122127/http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/2014/201407/HEFCE2014_07_updated%20July%202015.pdf> [accessed 19 June 2018]

— 2015a. *Recurrent Grants for 2015–16* (Bristol: HEFCE)

<http://webarchive.nationalarchives.gov.uk/20180405124705/http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/2015/201505/HEFCE2015_05.pdf> [accessed 19 June 2018]

— 2016. *Consultation on the Second Research Excellence Framework, Annex C*

<http://webarchive.nationalarchives.gov.uk/20180405121846/http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/2016/201636/HEFCE2016_36.pdf> [accessed 19 June 2018]

— 2016a. *Policy for Open Access in the Next Research Excellence Framework: Updated November 2016* (Bristol: HEFCE)

<<http://webarchive.nationalarchives.gov.uk/20180405115023/http://www.hefce.ac.uk/pubs/year/2016/201635/>> [accessed 19 June 2018]

— 2017a. *Initial Decisions on the Research Excellence Framework 2021* (Bristol: HEFCE)

<<http://www.ref.ac.uk/publications/2017/initialdecisionsontheresearchexcellenceframework2021.html>> [accessed 19 June 2018]

— 2017b. ‘Regulating HEIs as Charities – FAQs’

<<http://webarchive.nationalarchives.gov.uk/20180405125206/http://www.hefce.ac.uk/reg/charityreg/crfaq/>> [accessed 19 June 2018]

—— 2017c. ‘Are UK Universities On Track to Meet Open Access Requirements?’ <<http://webarhive.nationalarchives.gov.uk/20180405120946/http://blog.hefce.ac.uk/2017/09/14/are-uk-universities-on-track-to-meet-open-access-requirements/>> [accessed 19 June 2018]

Helfrich, Silke. 2012. ‘The Logic of the Commons & The Market: A Shorthand Comparison of Their Core Beliefs’, in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)

—— 2012a. ‘Common Goods Don’t Simply Exist – They Are Created’, in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)

Heller, Margaret, and Franny Gaede. 2016. ‘Measuring Altruistic Impact: A Model for Understanding the Social Justice of Open Access’, *Journal of Librarianship and Scholarly Communication*, 4: eP2132 <<https://doi.org/10.7710/2162-3309.2132>>

Heller, Michael. 1998. ‘The Tragedy of the Anticommons: Property in the Transition from Marx to Markets’, *Harvard Law Review*, 111(3): 621–88

Hemsley-Brown, Jane. 2011. ‘Market Heal Thyself: The Challenges of a Free Market in Higher Education’, *Journal of Marketing for Higher Education*, 21(2): 115–32 <<https://doi.org/10.1080/08841241.2011.623832>>

HESA. 2015. ‘Income of UK HE Providers’ <https://hesa.ac.uk/index.php?option=com_content&view=article&id=1900&Itemid=634> [accessed 28 October 2015]

Hess, Charlotte, and Elinor Ostrom. 2003. ‘Ideas, Artifacts, and Facilities: Information as a Common-Pool Resource’, *Law and Contemporary Problems*, 66(1-2): 111–46

—— 2004. ‘Studying Scholarly Communication: Can Commons Research and the IAD Framework Help Illuminate Complex Dilemmas?’ [conference paper], *The Commons in an Age of Global Transition: Challenges, Risks and Opportunities*, Tenth Biennial Conference of the International Association for the Study of

Commons Property, Oaxaca, Mexico, 9–13 August 2004 <<https://surface.syr.edu/sul/28>> [accessed 12 July 2018]

— 2011. ‘Introduction: An Overview of the Knowledge Commons’, in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)

HM Treasury. 2015. *Spending Review and Autumn Statement 2015* (London: HM Treasury) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/479749/52229_Blue_Book_PU1865_Web_Accessible.pdf> [accessed 18 June 2018]

Higher Education Act 2004. <<http://www.legislation.gov.uk/ukpga/2004/8>> [accessed 18 June 2018]

Higher Education and Research Act 2017.
<<http://www.legislation.gov.uk/ukpga/2017/29/contents/enacted/data.htm>> [accessed 18 June 2018]

Holmes, Frederic Lawrence. 1989. ‘Argument and Narrative in Scientific Writing’, in *The Literary Structure of Scientific Argument*, ed. by Peter Dear (Philadelphia: University of Philadelphia Press)

Holmwood, John (ed.). 2011. *A Manifesto for the Public University* (London: Bloomsbury Academic)

— 2013. ‘Markets Versus Dialogue: The Debate Over Open Access Ignores Competing Philosophies of Openness’, *LSE Impact Blog*, 21 October 2013 <<http://blogs.lse.ac.uk/impactofsocialsciences/2013/10/21/markets-versus-dialogue/>> [accessed 18 June 2018]

— 2016. ‘Consultation As Co-Option: Negotiating A Post-Public University System’, *The Sociological Review*, 9 May 2016 <<http://www.thesociologicalreview.com/blog/consultation-as-co-option-negotiating-a-post-public-university-system.html>>

Horowitz, Irving Louis. 1990. *Communicating Ideas: The Politics of Scholarly Publishing*, 2nd edn (New Brunswick, NJ: Transaction Publishers)

- Horrigan, John B. 2016. *Libraries 2016* (Washington, D.C.: Pew Research Center) <<http://www.pewinternet.org/2016/09/09/libraries-2016/>> [accessed 19 June 2018]
- House of Commons. 2004. *Select Committee on Science and Technology Tenth Report* <<https://publications.parliament.uk/pa/cm200304/cmselect/cmsstech/399/399.pdf>> [accessed 19 June 2018]
- 2016. *Business, Innovation and Skills Committee. The Teaching Excellence Framework: Assessing Quality in Higher Education. Third Report of Session 2015–16* <<http://www.publications.parliament.uk/pa/cm201516/cmselect/cmbis/572/572.pdf>> [accessed 18 June 2018]
- House of Commons Library. 2016. *Higher Education and Research Bill 2016. Briefing Paper Number 7608.* <<http://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7608>> [accessed 18 June 2018]
- 2017. *Abolition of Maintenance Grants in England from 2016/17. Briefing Paper No. 07258.* <<http://researchbriefings.files.parliament.uk/documents/CBP-7258/CBP-7258.pdf>> [accessed 19 June 2018]
- House of Lords. 2013. *Lords Select Committee: Open Access* <<http://www.parliament.uk/business/committees/committees-a-z/lords-select/science-and-technology-committee/inquiries/parliament-2010/open-access/>> [accessed 18 June 2018]
- 2013a. *Science and Technology Select Committee: The Implementation of Open Access. Oral and Written Evidence* <<http://www.parliament.uk/documents/lords-committees/science-technology/Openaccess/OpenAccessEvidence.pdf>> [accessed 18 June 2018]
- Hudson, David James. 2017. ‘On “Diversity” as Anti-Racism in Library and Information Studies: A Critique’, *Journal of Critical Library and Information Studies*, 1(1) <<https://doi.org/10.24242/jclis.v1i1.6>>
- Hughes, Alan, Michael Kitson, Anna Bullock, and Isobel Milner. 2013. *The Dual Funding Structure for Research in the UK: Research Council and Funding Council*

Allocation Methods and the Pathways to Impact of UK Academics ([n. pub.]: UK Research Innovation Centre)

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/181652/bis-13-545-dual-funding-structure-for-research-in-the-uk-research-council-and-funding-council-allocation-methods-and-the_pathways-to-impact-of-uk-academics.pdf> [accessed 18 June 2018]

Hui, Wendy, Byungjoon You, and Kar Yan Tam. 2008. 'Economics of Shareware: How Do Uncertainty and Piracy Affect Shareware Quality and Brand Premium?', *Decision Support Systems*, 44(3): 580–94

<<https://doi.org/10.1016/j.dss.2007.07.009>>

Hull, Richard. 2006. 'The Great Lie: Markets, Freedom and Knowledge', in *Neoliberal Hegemony: A Global Critique*, ed. by Dieter Plehwe, Bernhard Walpen, and Gisela Neunhöffer (Abingdon: Routledge)

Hyland, Ken. 2000. *Disciplinary Discourses: Social Interactions in Academic Writing* (New York: Longman)

Iannacci, Federico, and Eve Mitleton-Kelly. 2005. 'Beyond Markets and Firms: The Emergence of Open Source Networks', *First Monday*, 10(5) <<http://firstmonday.org/ojs/index.php/fm/article/view/1237/>> [accessed 4 July 2018]

IFLA/UNESCO. 1994. 'IFLA/UNESCO Public Library Manifesto 1994' <<http://www.ifla.org/publications/iflaunesco-public-library-manifesto-1994>> [accessed 18 June 2018]

Ignatow, Gabe. 2011. 'What has Globalization Done to Developing Countries' Public Libraries?', *International Sociology*, 26(6): 746–68 <<https://doi.org/10.1177/0268580910393373>>

Ilva, Jyrki. 2018. 'Looking for Commitment: Finnish Open Access Journals, Infrastructure and Funding', *Insights*, 31(25) <<https://doi.org/10.1629/uksg.414>>

Inefuku, Harrison W. 2017. 'Globalization, Open Access, and the Democratization of Knowledge', *Educause Review*, July/August 2017: 62–63 <<http://er.educause.edu/articles/2017/7/globalization-open-access-and-the->

[democratization-of-knowledge](#)

Inefuku, Harrison, and Charlotte Roh. 2016. 'Agents of Diversity and Social Justice: Librarians and Scholarly Communication', in *Open Access and the Future of Scholarly Communication: Policy and Infrastructure*, ed. by Kevin Smith and Katherine A. Dickson (Rowman and Littlefield)
<<https://works.bepress.com/charlotteroh/31/>> [accessed 18 June 2018]

Institute for Government. 2018. 'Passing Legislation'
<<https://www.instituteforgovernment.org.uk/publication/whitehall-monitor-2018/passing-legislation>> [accessed 18 June 2018]

Institute of Network Cultures. [n.d.]. 'Beyond Distributed and Decentralized: What is a Federated Network?'
<<http://networkcultures.org/unlikeus/resources/articles/what-is-a-federated-network/>> [accessed 18 June 2018]

Janssen, M. A. 2013. 'The Role of Information in Governing the Commons: Experimental Results', *Ecology and Society*, 18(4) <<https://doi.org/10.5751/ES-05664-180404>>

Jardine, Elizabeth, Maureen Garvey, and J. Silvia Cho. 2017. 'Open Access and Global Inclusion: A Look at Cuba', *CUNY Academic Works*
<https://academicworks.cuny.edu/si_pubs/78> [accessed 2 July 2018]

Jisc. [n.d.]. 'Monitor Local' <<https://monitor.jisc.ac.uk/local/>> [accessed 18 June 2018]

Jisc Collections. 2014. 'Jisc Collections Welcomes Minister's Response to Finch Review'
<<https://www.webarchive.org.uk/wayback/archive/20170112164247/https://www.jisc.ac.uk/news/jisc-collections-welcomes-ministers-response-to-finch-review-04-feb-2014>> [accessed 18 June 2018]

——— 2015. 'APC Data Collection' <<https://www.jisc-collections.ac.uk/Jisc-Monitor/APC-data-collection/>> [accessed 18 June 2018]

Johns, Adrian. 1998. *The Nature of the Book: Print and Knowledge in the Making*

(Chicago: University of Chicago Press)

—— 2009. *Piracy* (Chicago: University of Chicago Press)

Johnson, Gareth J. 2017. 'Through Struggle and Indifference: The UK Academy's Engagement with the Open Intellectual Commons' (doctoral thesis, Nottingham Trent University) <<http://irep.ntu.ac.uk/id/eprint/31531>> [accessed 18 June 2018]

—— 2018. 'Cultural, Ideological and Practical Barriers to Open Access Adoption Within the UK Academy: An Ethnographically Framed Examination', *Insights*, 31(22) <<https://doi.org/10.1629/uksg.400>>

Johnson, Jo. 2016. 'Response to Independent Advice on Open Access Research: Letter from Jo Johnson MP to Professor Adam Tickell' <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499945/bis-16-122-open-access-research-response.pdf> [accessed 18 June 2018]

—— 2016a. 'Statement on Higher Education and Research Following the EU Referendum' <<https://www.gov.uk/government/news/statement-on-higher-education-and-research-following-the-eu-referendum>> [accessed 18 June 2018]

—— 2017. 'Jisc Futures: Research in the Age of Open Science', *Times Higher Education*, 1 August 2017 <<https://www.timeshighereducation.com/blog/jisc-futures-research-age-open-science>> [accessed 18 June 2018]

Johnson, Rob, and Mattia Fosci. 2016. *Putting Down Roots: Securing the Future of Open Access Policies* (Knowledge Exchange) <<https://repository.jisc.ac.uk/6269/10/final-KE-Report-V5.1-20JAN2016.pdf>> [accessed 18 June 2018]

Johnson, Rob, Mattia Fosci, Andrea Chiarelli, Stephen Pinfield, and Michael Jubb. 2017. *Towards a Competitive and Sustainable Open Access Market in Europe: A Study of the Open Access Market and Policy Environment* (Nottingham: Research Consulting) <<https://blogs.openaire.eu/wp-content/uploads/2017/03/OA-market-report-28Final-13-March-201729-1.pdf>> [accessed 18 June 2018]

Jones, Elizabeth. 2016. 'Open Doesn't Mean Free: An Examination of the Use and Cost of Open Access in REF-Submitted Research Outputs at a UK University'

(master's thesis, University of the West of England)

Jones, Sam. 2016. 'One in Every 113 People Forced to Flee, Says UN Refugee Agency', *Guardian*, 20 June 2016 <<http://www.theguardian.com/global-development/2016/jun/20/one-in-every-113-people-uprooted-war-persecution-says-un-refugee-agency>> [accessed 18 June 2018]

Jongbloed, Ben. 2008. 'Strengthening Consumer Choice in Higher Education', in *Cost-Sharing and Accessibility in Higher Education: A Fairer Deal?*, ed. by P. N. Teixeira, D. B. Johnstone, M. J. Rosa, and J. J. Vossensteyn (Dordrecht: Springer), pp. 19–50

Jordan, Katy, and Martin Weller. 2018. 'Academics and Social Networking Sites: Benefits, Problems and Tensions in Professional Engagement with Online Networking', *Journal of Interactive Media in Education*, 2018(1) <<https://doi.org/10.5334/jime.448>>

Joseph, Heather. 2017. 'The Politics of Open' [conference presentation], *Repository Fringe*, Edinburgh, 4 August 2017

Joy, Eileen. 2016. 'Social Integration for the Distributed Commons', *Scholarly Communication Institute* [blog], 27 June 2016 <<https://trianglesci.org/2016/06/27/social-integration-for-the-distributed-commons/>> [accessed 17 July 2018]

Jubb, Michael. 2010. 'Challenges for Libraries in Difficult Economic Times: Evidence from the UK', *LIBER Quarterly*, 20(2): 132–51 <<http://doi.org/10.18352/lq.7983>>

——— 2017. *Academic Books and their Future: A Report to the AHRC and the British Library* <https://academicbookfuture.files.wordpress.com/2017/06/academic-books-and-their-futures_jubb1.pdf> [accessed 18 June 2018]

Jubb, Michael, Stéphane Goldstein, Mayur Amin, Andrew Plume, Stephanie Oeben, M'Hamed Aisati, Stephen Pinfield, Jennifer Salter, Peter A. Bath, Rob Johnson, and Mattia Fosci. 2015. *Monitoring the Transition to Open Access: A Report for the Universities UK Open Access Co-ordination Group* (Universities UK)

<<http://eprints.whiterose.ac.uk/90213/>> [accessed 18 June 2018]

Jubb, Michael, Andrew Plume, Stephanie Oeben, Lydia Brammer, Rob Johnson, Cihan Bütün, and Stephen Pinfield. 2017. *Monitoring the Transition to Open Access: December 2017* (Universities UK) <<http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2017/monitoring-transition-open-access-2017.pdf>> [accessed 18 June 2018]

Jump, Paul. 2013. 'Evolution of the REF', *Times Higher Education*, 17 October 2013 <<https://www.timeshighereducation.com/features/evolution-of-the-ref/2008100.article>> [accessed 28 August 2018]

Kalathil, Shanthi, and Taylor C. Boas. 2003. *Open Networks, Closed Regimes: The Impact of the Internet on Authoritarian Rule* (Washington, D.C.: Carnegie Endowment for International Peace)

Kaniki, Andrew M., and M. E. Kutu Mphahlele. 2002. 'Indigenous Knowledge for the Benefit of All: Can Knowledge Management Principles Be Used Effectively?', *South African Journal of Libraries and Information Science*, 68(1): 1–15 <<https://doi.org/10.7553/68-1-753>>

Kansa, Eric. 2014. 'It's the Neoliberalism, Stupid: Why Instrumentalist Arguments for Open Access, Open Data, and Open Science are Not Enough', *LSE Impact Blog*, 27 January 2014 <<http://blogs.lse.ac.uk/impactofsocialsciences/2014/01/27/its-the-neoliberalism-stupid-kansa/>> [accessed 18 June 2018]

Kapczynski, Amy. 2010. 'Access to Knowledge: A Conceptual Genealogy', in *Access to Knowledge in the Age of Intellectual Property*, ed. by Gaëlle Krikorian and Amy Kapczynski (New York: Zone Books)

Karaganis, Joe (ed.). 2011. *Media Piracy in Emerging Economies* (New York: Social Science Research Council)

Keene, Chris, Caren Milloy, Verena Weigert, and Graham Stone. 2016. 'The Rise of the New University Press: The Current Landscape and Future Directions' [conference paper], *LIBER Annual Conference*, 29 June–1 July 2016, Helsinki, Finland.

- Kelly, Thomas. 1957. *George Birkbeck: Pioneer of Adult Education* (Liverpool: Liverpool University Press)
- 1977. *A History of Public Libraries in Great Britain, 1845–1975* (London: The Library Association)
- Kelty, Chris. 2008. *Two Bits: The Cultural Significance of Free Software* (Durham, NC: Duke University Press)
- Kember, Sarah. 2014. ‘Opening Out from Open Access: Writing and Publishing in Response to Neoliberalism’, *Ada: A Journal of Gender, New Media, and Technology*, 4 <<https://adanewmedia.org/2014/04/issue4-kember/>> [accessed 29 August 2018]
- Klein, Naomi. 2017. ‘How Power Profits from Disaster’, *Guardian*, 6 July 2017 <<https://www.theguardian.com/us-news/2017/jul/06/naomi-klein-how-power-profits-from-disaster>> [accessed 18 June 2018]
- Kmietowicz, Zosia. 2015. ‘Wellcome Trust Increases Investment in Fossil Fuels Despite Calls to Divest’, *BMJ*, 2015(351) <<https://doi.org/10.1136/bmj.h7019>>
- Knox, Jeremy. 2013. ‘The Limitations of Access Alone: Moving Towards Open Processes in Education Technology’, *Open Praxis*, 5(1): 21–29 <<https://doi.org/10.5944/openpraxis.5.1.36>>
- 2017. ‘How Goes the Revolution?: Three Themes in the Shifting MOOC Landscape’, in *Educação e Tecnologia: Abordagens Críticas*, 1st edn, ed. by G. Martins dos Santos Ferreira, L. Alexandre da Silva Rosado, and J. de Sá Carvalho (Rio de Janeiro: Universidade Estacio De Sa), pp. 386–408
- Kramer, Bianca, Jeroen Bosman, Marcin Ignac, Christina Kral, Tellervo Kalleinen, Pekko Koskinen, Ian Bruno, Amy Buckland, Sarah Callaghan, Robin Champieux, Chris Chapman, Stephanie Hagstrom, MaryAnn Martone, Fiona Murphy, and Daniel Paul O’Donnell. 2016. “‘Defining the Scholarly Commons – Reimagining Research Communication”, Report of Force11 SCWG Workshop, Madrid, Spain, February 25–27, 2016’, *Research Ideas and Outcomes*, 2: e9340 <<https://doi.org/10.3897/rio.2.e9340>>

Kranich, Nancy. 2011. 'Countering Enclosure: Reclaiming the Knowledge Commons', in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)

Kronick, David Abraham. 1976. *A History of Scientific and Technical Periodicals: The Origins and Development of the Scientific and Technical Press, 1665–1790* (Metuchen, NJ: Scarecrow Press)

Kuhlen, Rainer. 2012. 'Knowledge Is the Water of the Mind: How to Structure Rights in "Immaterial Commons"', in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)

Laakso, Mikael. 2014. 'Measuring Open Access: Studies of Web-Enabled Innovation in Scientific Journal Publishing' (doctoral thesis, Hanken School of Economics) <<http://hdl.handle.net/10138/45238>> [accessed 18 June 2018]

Laakso, Mikael, and Bo-Christer Björk. 2016. 'Hybrid Open Access—A Longitudinal Study', *Journal of Informetrics*, 10(4): 919–32 <<https://doi.org/10.1016/j.joi.2016.08.002>>

Laakso, Mikael, Patrik Welling, Helena Bukvova, Linus Nyman, Bo-Christer Björk, and Turid Hedlund. 2011. 'The Development of Open Access Journal Publishing from 1993 to 2009', *PLOS ONE*, 6(6): e20961 <<https://doi.org/10.1371/journal.pone.0020961>>

Lakoff, George. 2006. *Whose Freedom? The Battle Over America's Most Important Idea* (New York: Farrar, Straus, Giroux)

Lanier, Jaron. 2014. *Who Owns the Future?* (New York: Simon & Schuster)

Larivière, Vincent, Stefanie Haustein, and Philippe Mongeon. 2015. 'The Oligopoly of Academic Publishers in the Digital Era', *PLOS ONE*, 10(6): e0127502 <<https://doi.org/10.1371/journal.pone.0127502>>

Lawson, John, and Harold Silver. 2007. *A Social History of Education in England* (Abingdon: Routledge)

Lawson, Nigel. 1992. *The View from No. 11: Memoirs of a Tory Radical* (London: Bantam)

Lawson, Stuart. 2015. 'Fee Waivers for Open Access Journals', *Publications*, 3(3): 155–67 <<https://doi.org/10.3390/publications3030155>>

——— 2015a. "'Total Cost of Ownership" of Scholarly Communication: Managing Subscription and APC Payments Together', *Learned Publishing*, 28(1): 9–13 <<https://doi.org/10.1087/20150103>>

——— 2016. 'Report on Offset Agreements: Evaluating Current Jisc Collections Deals. Year 1 – Evaluating 2015 Deals', *figshare* <<https://doi.org/10.6084/m9.figshare.4047777.v1>>

——— 2016a. 'Written Evidence: Stuart Lawson, PhD Student, Birkbeck, University of London (HERB47)' <<https://publications.parliament.uk/pa/cm201617/cmpublic/HigherEducationandResearch/memo/HERB47.htm>> [accessed 18 June 2018]

——— 2017. 'Against Capital', *stuartlawson.org*, 1 July 2017 <<http://stuartlawson.org/2017/07/against-capital/>> [accessed 19 June 2018]

——— 2017a. 'Report on Offset Agreements: Evaluating Current Jisc Collections Deals. Year 2 – Evaluating 2016 Deals', *figshare* <<https://doi.org/10.6084/m9.figshare.5383861.v1>>

——— 2018 'An Ethics of Care: What Kind of Open Access Do We Want?', *RLUK Conference*, British Library, London March 2018 <<http://stuartlawson.org/2018/05/an-ethics-of-care-what-kind-of-open-access-do-we-want/>> [accessed 11 July 2018]

——— 2018a. 'RCUK Open Access Block Grant Allocation 2013–18', *figshare* <<https://doi.org/10.6084/m9.figshare.4047315.v2>>

——— 2018b. 'Report on Offset Agreements: Evaluating Current Jisc Collections Deals. Year 3 – Evaluating 2017 Deals', *Zenodo* <<https://doi.org/10.5281/zenodo.1473588>>

Lawson, Stuart, Jonathan Gray, and Michele Mauri. 2016. 'Opening the Black Box of Scholarly Communication Funding: A Public Data Infrastructure for Financial Flows in Academic Publishing', *Open Library of Humanities*, 2(1)

<<https://doi.org/10.16995/olh.72>>

Lawson, Stuart, Kevin Sanders, and Lauren Smith. 2015. 'Commodification of the Information Profession: A Critique of Higher Education Under Neoliberalism', *Journal of Librarianship and Scholarly Communication*, 3(1): p.eP1182

<<https://doi.org/10.7710/2162-3309.1182>>

Leach-Murray, Susan. 2017. 'Knowledge Unlatched – "Free Access to Scholarly Content for Every Reader Across the World"', *Technical Services Quarterly*, 34(2):

219–21 <<https://doi.org/10.1080/07317131.2017.1286856>>

Lessig, Lawrence. 2004. *Free Culture* (New York: Penguin)

——— 2006. *Code*, 2nd edn (New York: Basic Books)

Levine, Peter. 2011. 'Collective Action, Civic Engagement, and the Knowledge Commons', in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)

Levy, Daniel C. 2018. 'Global Private Higher Education: An Empirical Profile of its Size and Geographical Shape', *Higher Education*, [Online Ahead of Print]

<<https://doi.org/10.1007/s10734-018-0233-6>>

Levy, Steven. 1984. *Hackers: Heroes of the Computer Revolution* (New York: Doubleday)

Lewis, Alison M. 2008. 'Introduction', in *Questioning Library Neutrality: Essays from Progressive Librarian*, ed. by A. M. Lewis (Duluth, MI: Library Juice Press), pp. 1–4 <http://eprints.rclis.org/15071/1/Questioning_Library_Neutrality_Intro.pdf> [accessed 18 June 2018]

Lewis, David W. 2017. 'The 2.5% Commitment', *IUPUI ScholarWorks*

<<https://doi.org/10.7912/C2JD29>>

——— 2017a. 'Thinking Differently About the Money: A First Step Toward the Open

- Scholarly Commons', *IUPUI ScholarWorks* <<https://doi.org/10.7912/C2D07T>>
- Lewis, David W., Lori Goetsch, Diane Graves, and Mike Roy. 2018. 'Funding Community Controlled Open Infrastructure for Scholarly Communication: The 2.5% Commitment Initiative', *College & Research Library News*, 79(3) <<https://crln.acrl.org/index.php/crlnews/article/view/16902/18557>> [accessed 9 August 2018]
- Lindbloom, Charles. 2001. *The Market System: What It Is, How It Works, and What to Make of It* (New Haven: Yale University Press)
- Lippincott, Sarah Kalikman. 2016. 'The Library Publishing Coalition: Organizing Libraries to Enhance Scholarly Publishing', *Insights*, 29(2), 186–91 <<http://doi.org/10.1629/uksg.296>>
- Lippmann, Walter. 1937. *An Enquiry Into The Principles of the Good Society* (Boston, MA: Little, Brown)
- Litman, Jessica. 1990. 'The Public Domain', *Emory Law Journal*, 39(4).
- Liu, Lewis G., and Harold Gee. 2017. 'Determining Whether Commercial Publishers Overcharge Libraries for Scholarly Journals in the Fields of Science, Technology, and Medicine, with a Semilogarithmic Econometric Model', *Library Quarterly: Information, Community, Policy*, 87(2): 150–72 <<https://doi.org/10.1086/690736>>
- Lorentzen, Peter. 2013. 'China's Strategic Censorship', *American Journal of Political Science*, 58(2): 402–14 <<https://doi.org/10.1111/ajps.12065>>
- Lougee, Wendy Pradt. 2011. 'Scholarly Communications and Libraries Unbound: The Opportunity of the Commons', in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)
- Lowe, D. 2016. 'Thoughts on Sci-Hub', *In the Pipeline* [blog], February 16 2016 <<http://blogs.sciencemag.org/pipeline/archives/2016/02/16/thoughts-on-sci-hub>> [accessed 19 June 2018]

- Luce, Richard E. 2001. 'E-Prints Intersect the Digital Library: Inside the Los Alamos arXiv', *Issues in Science and Technology Librarianship* <<http://webdoc.sub.gwdg.de/edoc/aw/ucsb/istl/01-winter/article3.html>> [accessed 18 June 2018]
- Lundén, Anna, Camilla Smith, and Britt-Marie Wideberg. 2018. 'National Licence Negotiations Advancing the Open Access Transition – a View From Sweden', *Insights*, 31(12) <<http://doi.org/10.1629/uksg.413>>
- Lux, David S., and Harold J. Cook. 1998. 'Closed Circles or Open Networks?: Communicating at a Distance During the Scientific Revolution', *History of Science*, 36(2): 179–211 <<https://doi.org/10.1177/007327539803600203>>
- McGettigan, Andrew. 2013. *The Great University Gamble: Money, Markets, and the Future of Higher Education* (London: Pluto Press)
- 2017. 'Lessons from LEO: Time to Think Differently About Subject Funding', *WonkHE*, 17 June 2017 <<https://wonkhe.com/blogs/lessons-from-leo-its-time-to-think-differently-about-subject-funding/>> [accessed 18 June 2018]
- McGoey, Lindsey. 2015. *No Such Thing As a Free Gift: The Gates Foundation and the Price of Philanthropy* (London: Verso)
- McGonagle-O'Connell, Alison. 2018. 'Challenges and Opportunities (But Mostly Opportunities) for Open Source Infrastructure in Library Publishing', *Library Publishing Coalition Blog*, 11 June 2018 <<https://librarypublishing.org/lpforum18-reflection-challenges-and-opportunities-for-os-infrastructure/>> [accessed 12 July 2018]
- Machin-Mastromatteo, J. D., A. Uribe-Tirado, and M. E. Romero-Ortiz. 2016. 'Piracy of Scientific Papers in Latin America: An Analysis of Sci-Hub Usage Data', *Information Development*, 32(5) <<https://doi.org/10.1177/0266666916671080>>
- MacKenzie, John M. 2013. 'General Editor's Introduction', in *Empire of Scholars: Universities, Networks and the British Academic World 1850–1939*, by Tamson Pietsch (Manchester: Manchester University Press), pp. vii–viii
- McKitterick, David. 1992. *A History of Cambridge University Press*, Vol 1.

(Cambridge: Cambridge University Press)

McMenemy, David. 2009. *The Public Library* (London: Facet Publishing)

Macmillan, Fiona. 2017. 'The Problematic Relationship Between Traditional Knowledge and the Commons', in *Cultural Heritage: Scenarios 2016*, ed. by S. Pinton and L. Zagato (Venice, Italy: University Ca Foscari), pp. 142–54
<<http://eprints.bbk.ac.uk/15935/>> [accessed 18 June 2018]

McMillan Cottom, Tressie. 2017. *Lower Ed: The Troubling Rise of For-Profit Colleges in the New Economy* (New York: New Press)

McSherry, Corynne. 2003. *Who Owns Academic Work? Battling for Control of Intellectual Property* (Cambridge, MA: Harvard University Press)

McSmith, Andy. 2011. *No Such Thing As Society* (London: Constable)

Madison, Michael A., Brett M. Frischmann, and Katherine J. Strandburg. 2010. 'Constructing Commons in the Cultural Environment', *Cornell Law Review*, 95(4): 657–709

——— 2012. 'Constructing Commons in the Cultural Environment', in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)

Magaziner, Jessica. 2015. 'The Importance of Higher Education for Syrian Refugees', *World Education News & Reviews*, 7 December 2015
<<http://wenr.wes.org/2015/12/the-importance-of-higher-education-for-syrian-refugees/>> [accessed 18 June 2018]

Mair, Carl. 2016. 'Taking Technological Infrastructure Seriously: Standards, Intellectual Property and Open Access', *Utrecht Journal of International and European Law*, 32(82): 59–88 <<https://doi.org/10.5334/ujiel.266>>

Mako Hill, Benjamin. 2012. 'Freedom for Users, Not for Software', in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)

Marginson, Simon. 2017. 'What About Public Goods in Higher Education?'

- WonkHE, 25 September 2017 <<https://wonkhe.com/blogs/higher-education-as-a-public-good/>> [accessed 18 June 2018]
- Maron, Nancy, Kimberly Schmelzinger, Christine Mulhern, and Daniel Rossman. 2016. 'The Costs of Publishing Monographs: Toward a Transparent Methodology', *The Journal of Electronic Publishing*, 19(1) <<https://doi.org/10.3998/3336451.0019.103>>
- Martin, J. D. III. 2016. 'Piracy, Public Access, and Preservation: An Exploration of Sustainable Accessibility in a Public Torrent Index', *SocArxiv*, <<https://doi.org/10.17605/OSF.IO/HZP6R>>
- Martín-Martín, Alberto, Rodrigo Costas, Thed van Leeuwen, and Emilio D López-Cózar. 2018. 'Evidence of Open Access of Scientific Publications in Google Scholar: A Large-Scale Analysis', *SocArXiv* <<https://doi.org/10.17605/OSF.IO/K54UV>>
- Martinson, Jane. 2015. 'Government Accused of Trying to Water Down Freedom of Information Act', *Guardian*, 19 October 2015 <<https://www.theguardian.com/politics/2015/oct/19/government-accused-of-trying-to-water-down-freedom-of-information-act>> [accessed 18 June 2018]
- Martone, Maryann. 2016. 'Principles of the Scholarly Commons – Open for Comments', *FORCE11*, 13 May 2016 <<https://www.force11.org/group/scholarly-commons-working-group-wp2principles/principles-scholarly-commons-open-comments>> [accessed 18 June 2018]
- Marx, Karl. 1976 [1867]. *Capital: Volume 1* (London: Penguin)
- Mathew, Ashwin J. 2016. 'The Myth of the Decentralised Internet', *Internet Policy Review*, 5(31) <<https://doi.org/10.14763/2016.3.425>>
- Mattei, Ugo. 2012. 'First Thoughts for a Phenomenology of the Commons', in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)
- Matthews, David. 2018. 'French Say 'No Deal' to Springer as Journal Fight Spreads', *Times Higher Education*, 9 April 2018

<<https://www.timeshighereducation.com/news/french-say-no-deal-springer-journal-fight-spreads>> [accessed 18 June 2018]

—— 2018a. ‘Is it Time to Nationalise Academic Publishers?’, *Times Higher Education*, 2 March 2018 <<https://www.timeshighereducation.com/blog/it-time-nationalise-academic-publishers>> [accessed 19 June 2018]

Maxwell, John W., Alessandra Bordini, and Katie Shamash. 2017. ‘Reassembling Scholarly Communications: An Evaluation of the Andrew W. Mellon Foundation’s Monograph Initiative’, *Journal of Electronic Publishing*, 20(1)
<<https://doi.org/10.3998/3336451.0020.101>>

Mboa, Thomas. 2017. ‘The (Unconscious?) Neocolonial Face of Open Access’, *OpenCon 2017*, Berlin, November 2017 <<https://www.youtube.com/watch?v=-HSOzoSLHL0>> [accessed 18 June 2018]

Meadows, Alice. 2015. ‘Beyond Open: Expanding Access to Scholarly Content’, *Journal of Electronic Publishing*, 18(3)
<<https://doi.org/10.3998/3336451.0018.301>>

Meinzen-Dick, Ruth, Monica DiGregorio, and Nancy McCarthy. 2004. ‘Methods For Studying Collective Action In Rural Development’, CAPRI Working Paper No. 33 <<http://ebrary.ifpri.org/utills/getfile/collection/p15738coll2/id/125175/filename/125176.pdf>> [accessed 18 June 2018]

Meisel, Joseph S. 2011. *Knowledge and Power: The Parliamentary Representation of Universities in Britain and the Empire* (London: Wiley)

Melville, David. 2018. ‘We’re Likely to Miss HEFCE More Than We Know’, *WonkHE*, 19 March 2018 <<https://wonkhe.com/blogs/were-likely-to-be-miss-hefce-more-than-we-know/>> [accessed 19 June 2018]

Members of the Social Science Centre Lincoln. 2017. ‘Making a Co-operative University’, *WonkHE*, 8 August 2017 <<http://wonkhe.com/blogs/making-a-co-operative-university/>> [accessed 18 June 2018]

Meyer, Eric T., and Rob Kling. 2000. ‘The Research Divide: Internet Commons, Scholarly Participation and Pre-print Servers’ [conference paper], *IASCP*

(International Association for the Study of Common Property) Conference, Bloomington, Indiana, US, 31 May – 4 June 2000
<<http://users.ox.ac.uk/~inet0080/iuarchive/files/IASCP2000.pdf>> [accessed 18 June 2018]

Mina, An Xiao. 2018. 'Learning the Politics of "Digital Dissensus"', *Civicist*, 5 February 2018 <<https://civichall.org/civicist/learning-the-politics-of-digital-dissensus/>> [accessed 18 June 2018]

Mirowski, Philip. 2014. *Never Let a Serious Crisis Go To Waste: How Neoliberalism Survived the Financial Meltdown* (London: Verso)

Mirowski, Philip, and Dieter Plehwe (eds). 2009. *The Road from Mont Pelerin* (Cambridge, MA; London: Harvard University Press)

Mises, Ludvig von. 1944. *Bureaucracy* (New Haven, CT: Yale University Press)

Mittermaier, Bernhard. 2017. 'From the DEAL Engine Room — An Interview With Bernhard Mittermaier', *LIBREAS. Library Ideas*, 32
<http://libreas.eu/ausgabe32/mittermaier_en/> [accessed 18 June 2018]

MLA. 2010. *What Do the Public Want From Libraries? User and Non-User Research – Full Research Report* (Birmingham: Museums, Libraries & Archives Council) <https://www.artscouncil.org.uk/sites/default/files/download-file/what_public_want_from_libraries_full_research_report_final_081110.pdf> [accessed 18 June 2018]

Mlambo, Elizabeth. 2018. 'Open Science, Open Access: Opportunities for the Global South, or Just Another Trojan Horse from the North?', in *Open Divide: Critical Studies on Open Access*, ed. by Joachim Schöpfel and Ulrich Herb (Sacramento, CA: Library Juice Press) pp. 137–46

Mockapetris, P., and K. J. Dunlap. 1988. 'Development of the Domain Name System', *ACM SIGCOMM Computer Communication Review*, 18(4): 123–33
<<https://doi.org/10.1145/52325.52338>>

Molesworth, Mike, Elizabeth Nixon, and Richard Scullion. 2009. 'Having, Being and Higher Education: The Marketisation of the University and the Transformation

of the Student Into Consumer’, *Teaching in Higher Education*, 14(3): 277–87
<<https://doi.org/10.1080/13562510902898841>>

Molloy, Jennifer C. 2011. ‘The Open Knowledge Foundation: Open Data Means Better Science’, *PLOS Biology*, 9(12): e1001195
<<https://doi.org/10.1371/journal.pbio.1001195>>

Monbiot, George. 2011. ‘Academic Publishers Make Murdoch Look Like a Socialist’, *Guardian*, 29 August 2011
<<https://www.theguardian.com/commentisfree/2011/aug/29/academic-publishers-murdoch-socialist>> [accessed 9 July 2018]

Mongeau, Philippe. 2018. “‘The Future is Open?’: An Overview of Open Access Monograph Publishing’, *The i Journal*, 3(2)
<<http://www.theijournal.ca/index.php/ijournal/article/view/29481>> [accessed 18 June 2018]

Montgomery, Lucy. 2014. ‘Knowledge Unlatched: A Global Library Consortium Model for Funding Open Access Scholarly Books’, *Cultural Science*, 7(2): 1–66
<<http://cultural-science.org/journal/index.php/culturalscience/article/view/76>>
[accessed 16 July 2018]

Moody, Glyn. 2002. *Rebel Code: Linux and the Open Source Revolution*, 2nd edn (London: Penguin)

——— 2017. ‘Elsevier Continues To Build Its Monopoly Solution For All Aspects Of Scholarly Communication’, *Techdirt*, 10 August 2017
<<https://www.techdirt.com/articles/20170804/05454537924/elsevier-continues-to-build-monopoly-solution-all-aspects-scholarly-communication.shtml>> [accessed 18 June 2018]

Moore, Samuel A. 2014. ‘Editor’s Introduction’, in *Issues in Open Research Data*, ed. by Samuel A. Moore (London: Ubiquity Press), pp. 1–9 <<https://doi.org/10.5334/ban.a>>

——— 2017. ‘A Genealogy of Open Access: Negotiations Between Openness and Access to Research’, *Revue Française en sciences de l’information et de la*

communication, 11(2) <<https://journals.openedition.org/rfsic/3220>> [accessed 9 August 2018]

—— 2018. ‘The Care-Full Commons’, in *The Commons and Care*, ed. by Samuel A. Moore and Mattering Press (Coventry: Post Office Press and Rope Press), pp. 16–25 <<https://doi.org/10.17613/M6901ZF54>>

—— Forthcoming. ‘Common Struggles: Policy-Based vs. Scholar-Led Approaches to Open Access in the Humanities’ (doctoral thesis, King’s College London)

Moore, Sam, Cameron Neylon, Martin Paul Eve, Daniel Paul O’Donnell, and Damian Pattinson. 2017. ‘“Excellence R Us”: University Research and the Fetishisation of Excellence’, *Palgrave Communications*, 3: 16105 <<https://doi.org/10.1057/palcomms.2016.105>>

Morais, Rita, and Lidia Borrell-Damian. 2018. *Open Access 2016–2017 EUA Survey Results* (Brussels: European University Association) <<http://www.eua.be/Libraries/publications-homepage-list/open-access-2016-2017-eua-survey-results>> [accessed 18 June 2018]

Morgan, John. 2017. ‘Higher Education and Research Bill Passed by UK Parliament’, *Time Higher Education*, 27 April 2017 <<https://www.timeshighereducation.com/news/higher-education-and-research-bill-passed-uk-parliament>> [accessed 18 June 2018]

Morozov, Evgeny. 2012. *The Net Delusion: How Not to Liberate the World* (London: Penguin)

Morris, Sally, Ed Barnas, Douglas LaFrenier, and Margaret Reich. 2013. *The Handbook of Journal Publishing* (Cambridge: Cambridge University Press)

Morris, Shaneka, and Gary Roebuck. 2017. *ARL Statistics 2014–2015* (Association of Research Libraries) <<http://publications.arl.org/ARL-Statistics-2014-2015>> [accessed 18 June 2018]

Morrison, Heather. 2015. ‘Open Access to Scholarly Knowledge: The New Commons’, in *Free Knowledge: Confronting the Commodification of Human Discovery*, ed. by Patricia W. Elliott and Daryl H. Hepting (Saskatchewan:

University of Regina Press) <<http://hdl.handle.net/10535/9754>> [accessed 18 June 2018]

Morsi, Hani. 2016. 'Toward Context-Sensitive Openness: How Understanding Multicultural Conceptions of Openness Can Help Us Better Apply It', *OCDSnet* [blog] <<http://ocsdnet.org/guest-blog-toward-context-sensitive-openness-how-understanding-multicultural-conceptions-of-openness-can-help-us-better-apply-it/>> [accessed 2 July 2018]

Moskovkin, V. M. 2008. 'Institutional Policies for Open Access to the Results of Scientific Research', *Scientific and Technical Information Processing*, 35(6): 269–73 <<https://doi.org/10.3103/S0147688208060075>>

Mountz, Alison, Anne Bonds, Becky Mansfield, Jenna Loyd, Jennifer Hyndman, Margaret Walton-Roberts, Ranu Basu, Risa Whitson, Roberta Hawkins, Trina Hamilton, and Winifred Curran. 2015. 'For Slow Scholarship: A Feminist Politics of Resistance through Collective Action in the Neoliberal University', *ACME: An International Journal for Critical Geographies*, 14(4): 1235–59 <<https://www.acme-journal.org/index.php/acme/article/view/1058>> [accessed 9 August 2018]

Moxham, Noah, and Aileen Fyfe. 2017. 'The Royal Society And The Prehistory Of Peer Review, 1665–1965', *Historical Journal*, online first <<https://doi.org/10.1017/S0018246X17000334>>

Muddiman, D., S. Duranni, M. Dutch, R. Linley, J. Pateman, and J. Vincent. 2000. *Open to All? The Public Library and Social Exclusion*, Library and Information Commission Research Report 84 (London: Resource) <<http://eprints.rclis.org/6283/>> [accessed 19 June 2018]

Mudiwa, Morris. 2002. 'Global Commons: The Case of Indigenous Knowledge, Intellectual Property Rights and Biodiversity' [conference paper], *The Commons in an Age of Globalisation, the Ninth Biennial Conference of the International Association for the Study of Common Property*, Victoria Falls, Zimbabwe, 17–21 June 2002 <<http://hdl.handle.net/10535/428>> [accessed 18 June 2018]

Muellerleile, Christopher. 2017. 'Open Access Panacea: Scarcity, Abundance, and Enclosure in the New Economy of Academic Knowledge Production', in *Routledge*

Handbook of Political Economy of Science, ed. by David Tyfield, Rebecca Lave, Samuel Randalls, and Charles Thorpe (Abingdon: Routledge)

Mundy, Paul, and J. Lin Compton. 1991. 'Indigenous Communication and Indigenous Knowledge', Development Communication Report 74, Clearinghouse on Development Communication, Arlington, VA
<http://mamud.com/Docs/ic_and_ik_dcr.pdf> [accessed 18 June 2018]

Murakami Wood, David. 2017. 'The Global Turn to Authoritarianism and After', *Surveillance & Society*, 15(3/4): 357–70
<<https://ojs.library.queensu.ca/index.php/surveillance-and-society/article/view/6835>> [accessed 18 June 2018]

Murphy, Tony, and Daniel Sage. 2014. 'Perceptions of the UK's Research Excellence Framework 2014: A Media Analysis', *Journal of Higher Education Policy and Management*, 36(6): 603–15
<<https://doi.org/10.1080/1360080X.2014.957890>>

——— 2015. 'Perceptions of the UK's Research Excellence Framework 2014: A Small Survey of Academics', *Australian Universities' Review*, 57(2): 31–36 <https://issuu.com/nteu/docs/aur_57-02> [accessed 18 June 2018]

Murugesan, Ravi. 2017. 'Miles to Go for Scholarly Commons to Become a Global Academic Norm', *INASP Blog*, 12 April 2017 <<http://blog.inasp.info/miles-scholarly-commons-global-academic-norm/>>

Nadim, Tahani. 2018. 'Friends with Books', in *The Commons and Care*, ed. by Samuel A. Moore and Mattering Press (Coventry: Post Office Press and Rope Press), pp. 26–33 <<https://doi.org/10.17613/M6901ZF54>>

Naidoo, Rajani. 2008. 'The Competitive State and the Mobilised Market: Higher Education Policy Reform in the United Kingdom (1980–2007)', *Critique Internationale*, 39: 47–65

Naim, Kamran, Kevin Stranack, and John Willinsky. 2017. *Open Access Publishing Cooperative Study: Final Report* <<https://pkp.sfu.ca/2018/01/02/open-access-publishing-cooperative-study-final-report/>> [accessed 29 August 2018]

- National Audit Office. 2017. *Follow-Up on Alternative Higher Education Providers. Report by the Comptroller and Auditor General* <<https://www.nao.org.uk/wp-content/uploads/2017/10/Follow-up-on-alternative-higher-education-providers.pdf>> [accessed 18 June 2018]
- Navickas, Katrina. 2018. 'Common Land and Common Misconceptions', *A History of Public Space* [blog], 10 February 2018 <<http://historyofpublicspace.uk/2018/02/10/common-land-and-common-misconceptions/>> [accessed 18 June 2018]
- Neary, Mike, and Joss Winn. 2012. 'Open Education: Common(s), Commonism and the New Common Wealth', *ephemera*, 12(4): 406–22 <<http://www.ephemerajournal.org/contribution/open-education-commons-commonism-and-new-common-wealth>> [accessed 18 June 2018]
- . 2018. 'The Social Science Centre, Lincoln: The Theory and Practice of a Radical Idea', *RT: A Journal on Research Policy & Evaluation*, 5(1) <<https://doi.org/10.13130/2282-5398/9219>>
- Neeson, J. M. 1993. *Commoners: Common Right, Enclosure and Social Change in England, 1700–1820* (Cambridge: Cambridge University Press)
- Netherlands Organisation for Scientific Research (NWO). 2018. 'Open Science' <<http://www.nwo.nl/en/policies/open+science>> [accessed 18 June 2018]
- Newfield, Christopher. 2016. *The Great Mistake: How We Wrecked Public Universities and How We Can Fix Them* (Baltimore: Johns Hopkins University Press)
- Newman, John Henry. 1976 [1858]. *The Idea of a University: Defined and Illustrated*, ed. by Ian Ker (Oxford: Oxford University Press)
- Newman, Russell. 2016. 'The Debate Nobody Knows: Network Neutrality's Neoliberal Roots and a Conundrum for Media Reform', *International Journal of Communication*, 10: 5969–88
- Neyland, Daniel, and Sveta Milyaeva. 2017. *The Challenges of Research Assessment: A Qualitative Analysis of REF 2014* (London: Goldsmiths)

<http://www.marketproblems.com/uploads/2/6/2/7/26276885/mists_ref_report_final.pdf> [accessed 18 June 2018]

Neylon, Cameron. 2016. 'The Complexities of Citation: How Theory Can Support Effective Policy and Implementation', briefing paper <<http://repository.jisc.ac.uk/id/eprint/6553>> [accessed 18 June 2018]

— 2017. 'Citations and the Fallacy of Division', *WonkHE*, 5 December 2017 <<http://wonkhe.com/blogs/citations-and-the-fallacy-of-division/>> [accessed 18 June 2018]

— 2017a. 'Openness in Scholarship', in *Expanding Perspectives on Open Science: Communities, Cultures and Diversity in Concepts and Practices*, ed. by Leslie Chan and Fernando Loizides (Amsterdam: IOS Press) <<https://doi.org/10.3233/978-1-61499-769-6-6>>

— 2018. 'Against the 2.5% Commitment', *Science In the Open*, 5 January 2018 <<http://cameronneylon.net/blog/against-the-2-5-commitment/>> [accessed 18 June 2018]

— 2018a. 'Social Infrastructures in Research Communication: A Personal View of the FORCE11 Story', *Insights*, 31, 8 <<http://doi.org/10.1629/uksg.404>>

Nicholas, David, Blanca Rodríguez-Bravo, Anthony Watkinson, Cherifa Boukacem-Zeghmouri, Eti Herman, Jie Xu, Abdullah Abrizah, and Marzena Świgoń. 2017. 'Early Career Researchers and Their Publishing and Authorship Practices', *Learned Publishing*, 30(3): 205–17 <<https://doi.org/10.1002/leap.1102>>

Nicholas, David, Anthony Watkinson, Cherifa Boukacem-Zeghmouri, Blanca Rodríguez-Bravo, Jie Xu, Abdullah Abrizah, Marzena Świgoń, and Eti Herman. 2017a. 'Early Career Researchers: Scholarly Behaviour and the Prospect of Change', *Learned Publishing*, 30(2): 157–66 <<https://doi.org/10.1002/leap.1098>>

Nicholson, Craig. 2018. 'EU Set to Snub Hybrid Open-Access Journals', **Research Professional*, 14 June 2018 <<https://www.researchresearch.com/news/article/?articleId=1375694>> [accessed 22 June 2018]

Nik-Khah, Edward. 2011. 'George Stigler, the Graduate School of Business, and the

Pillars of the Chicago School’, in *Building Chicago Economics*, ed. by Robert Van Horn, Philip Mirowski, and Thomas A. Stapleford (Cambridge: Cambridge University Press)

Nobes, Andy. 2017. ‘Must We Decolonise Open Access? Perspectives from Francophone Africa’, *Journalologik*, 8 December 2017 <<http://journalologik.uk/?p=149>> [accessed 2 July 2018]

Noble, Safiya Umoja. 2018. *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York: New York University Press)

Nurse, Paul. 2015. *Ensuring a Successful UK Research Endeavour: A Review of the UK Research Councils*
<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478125/BIS-15-625-ensuring-a-successful-UK-research-endeavour.pdf> [accessed 18 June 2018]

OANA. 2015. ‘Recommendations for the Transition to Open Access in Austria’, *Zenodo* <<https://doi.org/10.5281/zenodo.34079>>

Obama, Barack. 2009. ‘Transparency and Openness in Government’, *White House* <<https://obamawhitehouse.archives.gov/the-press-office/transparency-and-open-government>> [accessed 18 June 2018]

——— 2013. ‘Executive Order – Making Open and Machine Readable the New Default for Government Information’ <<https://obamawhitehouse.archives.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government->> [accessed 18 June 2018]

Ochai, Adakole. 1984. ‘The Purpose of the Library in Colonial Tropical Africa: An Historical Survey’, *International Library Review*, 16(3): 309–15
<[https://doi.org/10.1016/0020-7837\(84\)90007-4](https://doi.org/10.1016/0020-7837(84)90007-4)>

OCSDnet. 2017. ‘Open Science Manifesto: Towards an Inclusive Open Science for Social and Environmental Well-Being’, *OCSDnet*
<<https://ocsdnet.org/manifesto/open-science-manifesto/>>

Odell, Jere, Heather Coates, and Kristi Palmer. 2016. ‘Rewarding Open Access

Scholarship In Promotion and Tenure: Driving Institutional Change', *College & Research Libraries News*, 77(7) <<http://crln.acrl.org/index.php/crlnews/article/view/9518/10824>> [accessed 18 June 2018]

Odi, Amusi. 1991. 'The Colonial Origins of Library Development in Africa—Some Reflections on Their Significance', *Libraries & Culture*, 26(4): 594–604 <<http://www.jstor.org/stable/25542373>> [accessed 18 June 2018]

OECD. 2017. *Education at a Glance 2017: OECD Indicators* (Paris: OECD Publishing) <<https://doi.org/10.1787/eag-2017-en>>

——— 2018. *Researchers (Indicator)* (Paris: OECD Publishing) <<https://doi.org/10.1787/20ddfb0f-en>>

Office for Students. [n.d.]. 'TEF Outcomes' <<https://www.officeforstudents.org.uk/advice-and-guidance/teaching/tef-outcomes/#/>> [accessed 19 June 2018]

Office of Fair Trading. 2002. *The Market for Scientific, Technical and Medical Journals* (London: Office of Fair Trading) <<http://econ.ucsb.edu/~tedb/Journals/oft396.pdf>> [accessed 18 June 2018]

Oksanen, Markku. 1998. 'Authorship, Communities and Intellectual Property Rights' [conference paper], *Crossing Boundaries*, 7th Biennial Conference of the International Association for the Study of Common Property, Vancouver, BC, June 1998 <<http://hdl.handle.net/10535/419>> [accessed 9 August 2018]

Okune, Angela, Becky Hillyer, and Leslie Chan. 2017. 'Confessions of an Open Access Advocate – Leslie Chan', *OCSDnet* <<https://ocsdnet.org/confessions-of-an-open-access-advocate-leslie-chan/>> [accessed 31 August 2018]

Olson, Mancur. 1965. *The Logic of Collective Action* (Cambridge, MA: Harvard University Press)

Olssen, Mark, and Michael A. Peters. 2005. 'Neoliberalism, Higher Education and the Knowledge Economy: From the Free Market to Knowledge Capitalism', *Journal of Education Policy*, 20(3): 313–45 <<https://doi.org/10.1080/02680930500108718>>

Onwuemezi, Natasha. 2017. 'Latest CIPFA Figures Reveal "Catastrophic" Scale of Library Closures', *The Bookseller*, 8 December 2017

<<https://www.thebookseller.com/news/cipfa-library-figures-687596>> [accessed 18 June 2018]

OpenAIRE. 2018. 'Beyond APCs: Alternative Open Access Publishing Business Models', OpenAIRE workshop, 5 April 2018, The Hague, Netherlands

<<https://www.openaire.eu/events/eventdetail/545/53|54|127|55|56|57|58/beyond-apcs-alternative-open-access-publishing-business-models>> [accessed 18 June 2018]

OpenCon. 2017. *Diversity, Equity, And Inclusion: Learnings & Next Steps, An OpenCon Report On Conference Planning* (Washington, D.C.: SPARC)

<<https://sparcopen.org/wp-content/uploads/2017/07/Diversity-Equity-and-Inclusion-Report-July-10-V1-Release.pdf>> [accessed 18 June 2018]

OpenDOAR. 2018. 'Growth of the OpenDOAR Database – United Kingdom, Institutional Repositories', *OpenDOAR*, updated 8 June 2018

<<http://www.opendoar.org/onechart-legacy.php?cID=224&ctID=&rtID=2&clID=&IID=&potID=&rSoftWareName=&search=&groupby=r.rDateAdded&orderby=&charttype=growth&width=600&height=350&caption=Growth%20of%20the%20OpenDOAR%20Database%20-%20United%20Kingdom,%20Institutional%20Repositories>> [accessed 8 June 2018]

—— 2018a. 'OpenDOAR Charts – Worldwide', *OpenDOAR*, updated 18 May 2018

<<http://www.opendoar.org/find.php?format=charts>> [accessed 18 May 2018]

Open Knowledge International. [n.d.]. *Open Definition 2.1*.

<<http://opendefinition.org/od/2.1/en/>> [accessed 18 June 2018]

Open Secrets. [n.d.]. 'RELX Group: Summary' <<https://www.opensecrets.org/lobby/clientsum.php?id=D000067394&year=2017>> [accessed 19 June 2018]

Open Source Initiative. 2007. 'Open Source Definition'

<<https://opensource.org/osd>> [accessed 18 June 2018]

—— 2012. 'History of the OSI' <<http://opensource.org/history>> [accessed 19 June 2018]

- Oreskes, Naomi. 2014. 'Science in the Origins of the Cold War', in *Science and Technology in the Global Cold War*, ed. by Naomi Oreskes and John Krige (Cambridge, MA: MIT Press)
- Ossenblok, Tryuken L. B., Tim C. E. Engels, and Gunnar Sivertsen. 2012. 'The Representation of the Social Sciences and Humanities in the Web of Science—A Comparison of Publication Patterns and Incentive Structures in Flanders and Norway (2005–9)', *Research Evaluation*, 21(4): 280–90
<<https://doi.org/10.1093/reseval/rvs019>>
- Ostrom, Elinor. 2015 [1990]. *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press)
- Ostrom, Elinor, and Charlotte Hess. 2011. 'A Framework for Analyzing the Knowledge Commons', in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)
- 2011a. 'Preface', in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)
- Ostrom, Vincent, and Elinor Ostrom. 1977. 'Public Goods and Public Choices', in *Alternatives for Delivering Public Services: Toward Improved Performance*, ed. by E. S. Savas (Boulder, CO: Westview Press), pp. 7–49
- Ottaviani, Jim. 2016. 'The Post-Embargo Open Access Citation Advantage: It Exists (Probably), It's Modest (Usually), and the Rich Get Richer (of Course)', *PLOS ONE*, 11(8): e0159614 <<https://doi.org/10.1371/journal.pone.0159614>>
- Ovadia, Steven. 2014. 'ResearchGate and Academia.edu: Academic Social Networks', *Behavioral & Social Sciences Librarian*, 33(3): 165–69 <<https://doi.org/10.1080/01639269.2014.934093>>
- Ovenden, Kevin. 2015. *Syriza: Inside the Labyrinth* (London: Pluto)
- Oyelude, Adetoun A., and Alice A. Bamigbola. 2012. 'Libraries as the Gate: "Ways" and "Keepers" in the Knowledge Environment', *Library Hi Tech News*, 29(8): 7–10
<<https://doi.org/10.1108/07419051211287615>>

- Packer, Abel L. 2009. 'The SciELO Open Access: A Gold Way from the South', *Canadian Journal of Higher Education / La revue canadienne d'enseignement supérieur*, 39(3): 111–26
<<http://journals.sfu.ca/cjhe/index.php/cjhe/article/view/479>> [accessed 29 June 2018]
- Packer, Abel L., and Rogério Meneghini. 2014. 'SciELO at 15 Years: Raison d'être, Advances, Challenges and the Future', in *SciELO: 15 Years of Open Access, An Analytic Study of Open Access and Scholarly Communication*, ed. by Abel L. Packer, Nicholas Cop, Adriana Luccisano, Amanda Ramalho, and Ernesto Spinak (Paris: UNESCO; São Paulo: SciELO) <<https://doi.org/10.7476/978923001237>>
- Panitch, J. M., and S. Michalak. 2005. 'The Serials Crisis: A White Paper for the UNC-Chapel Hill Scholarly Communications Convocation'
<<http://www.unc.edu/scholcomdig/whitepapers/panitch-michalak.html>> [accessed 10 January 2017]
- Parker, David. 2004. 'The UK's Privatisation Experiment: The Passage of Time Permits a Sober Assessment', CESifo Working Paper No. 1126, February 2004
<<https://ssrn.com/abstract=514224>> [accessed 18 June 2018]
- Parr, Chris. 2016. 'Interview with Melissa Fleming, Spokesperson for the UNHCR', *Times Higher Education*, 15 September 2016
<<https://www.timeshighereducation.com/people/interview-melissa-fleming-spokesperson-unhcr>> [accessed 18 June 2018]
- Parry, Gareth. 2016. 'College Higher Education in England 1944–66 and 1997–2010', *London Review of Education*, 14(1): 86–105
<<https://doi.org/10.18546/LRE.14.1.09>>
- Patel, Jashu, and Krishan Kumar. 2001. *Libraries and Librarianship in India* (Westport, CN: Greenwood Press)
- Pateman, John. 2000. 'Public Libraries and Social Class', in *Open to All? The Public Library and Social Exclusion*, Library and Information Commission Research Report 84 (London: Resource), pp. 26–42
<<http://eprints.rclis.org/6284/1/vol3wp3.pdf>> [accessed 18 June 2018]

- Payne, Daniel. 2016. 'New Research Maps the Extent of Web Filtering in Public Libraries', *CILIP* [blog], 11 April 2016 <<https://archive.cilip.org.uk/blog/new-research-maps-extent-web-filtering-public-libraries>> [accessed 9 July 2018]
- Payne, Daniel, Sarah Arkle, Jennifer Gallagher, Stuart Lawson, Jo Richardson, Lauren Smith, and Katherine Stephan. 2016. 'Content Filtering in UK Public Libraries', *figshare* <<https://doi.org/10.6084/m9.figshare.2059998.v2>>
- Paysan, Jacques. 2012. 'My Rocky Road to the Commons', in *The Wealth of the Commons: A World Beyond Market and State*, ed. by David Bollier and Silke Helfrich (Amherst, MA: Levellers Press)
- Peacey, Jason. 2013. "'Printers to the University" 1584–1658', in *The History of Oxford University Press*, Vol 1., ed. by Ian Gadd (Oxford: Oxford University Press)
- Peck, Jamie. 2010. *Constructions of Neoliberal Reason* (Oxford: Oxford University Press)
- 2010a. 'Zombie Neoliberalism and the Ambidextrous State', *Theoretical Criminology*, 14(1): 104–10 <<https://doi.org/10.1177/1362480609352784>>
- Pedersen, Olaf. 1997. *The First Universities: 'Studium Generale' and the Origins of University Education* (Cambridge: Cambridge University Press)
- Pells, Rachael. 2018. 'UK Research Funders Target Hybrid Open Access Charges', *Times Higher Education*, 5 March 2018 <<https://www.timeshighereducation.com/news/uk-research-funders-target-hybrid-open-access-charges>> [accessed 22 June 2018]
- Pemberton, John E. 1977. *Politics and Public Libraries in England and Wales, 1850–1970* (London: Library Association)
- Perrone, F. 1993. 'Women Academics in England, 1870–1930', *History of Universities*, 12: 339–67.
- Peters, Michael A., and Peter Roberts. 2012. *The Virtues of Openness: Education, Science, and Scholarship in the Digital Age* (Boulder, CO: Paradigm Publishers)
- Peterson, A. Townsend, Ada Emmett, and Marc L. Greenberg. 2013. 'Open Access

and the Author-Pays Problem: Assuring Access for Readers and Authors in a Global Community of Scholars’, *Journal of Librarianship and Scholarly Communication*, 1(3): eP1064 <<https://doi.org/10.7710/2162-3309.1064>>

Pierson, Paul. 2000. ‘Increasing Returns, Path Dependence, and the Study of Politics’, *The American Political Science Review*, 94(2): 251–67 <<https://doi.org/10.2307/2586011>>

Pietsch, Tamson. 2013. *Empire of Scholars: Universities, Networks and the British Academic World 1850–1939* (Manchester: Manchester University Press)

Piketty, Thomas. 2014. *Capital in the Twenty-First Century* (Cambridge, MA: Harvard University Press)

Pinfield, Stephen, Jennifer Salter, and Peter A. Bath. 2015. ‘The “Total Cost of Publication” in a Hybrid Open-access Environment: Institutional Approaches to Funding Journal Article-Processing Charges in Combination with Subscriptions’, *Journal of the Association for Information Science and Technology*, 67(7): 1751–66 <<https://doi.org/10.1002/asi.23446>>

——— 2017. ‘A “Gold-Centric” Implementation of Open Access: Hybrid Journals, the “Total Cost of Publication” and Policy Development in the UK and Beyond’, *Journal of the Association for Information Science and Technology*, 68(9): 2248–63 <<https://doi.org/10.1002/asi.23742>>

Piron, Florence. 2018. ‘Postcolonial Open Access’, in *Open Divide: Critical Studies on Open Access*, ed. by Joachim Schöpfel and Ulrich Herb (Sacramento, CA: Library Juice Press), pp. 117–26

Piwowar, Heather, Jason Priem, Vincent Larivière, Juan Pablo Alperin, Lisa Matthias, Bree Norlander, Ashley Farley, Jevin West, and Stefanie Haustein. 2018. ‘The State of OA: A Large-Scale Analysis of the Prevalence and Impact of Open Access Articles’, *PeerJ*, 6: e4375 <<https://doi.org/10.7717/peerj.4375>>

PKP. [n.d.]. ‘History’, *Public Knowledge Project* <<https://pkp.sfu.ca/about/history/>> [accessed 12 July 2018]

——— 2018. *The Public Knowledge Project: Reflections and Directions After Two*

Decades (Vancouver: Public Knowledge Project) <<https://pkp.sfu.ca/reflections-and-directions-2018/>> [accessed 18 June 2018]

Plavén-Sigray, Pontus, Granville James Matheson, Björn Christian Schiffler, and William Hedley Thompson. 2017. 'The Readability Of Scientific Texts Is Decreasing Over Time', *BioRxiv* <<https://doi.org/10.1101/119370>>

Plehwe, Dieter. 2009. 'Introduction', in *The Road from Mont Pelerin*, ed. by Philip Mirowski and Dieter Plehwe (Cambridge, MA; London: Harvard University Press)

Plehwe, Dieter, and Bernhard Walpen. 2006. 'Between Network and Complex Organization: the Making of Neoliberal Knowledge and Hegemony', in *Neoliberal Hegemony: A Global Critique*, ed. by Dieter Plehwe, Bernhard Walpen and Gisela Neunhöffer (Abingdon: Routledge)

Plehwe, Dieter, Bernhard Walpen, and Gisela Neunhöffer. 2006. 'Introduction: Reconsidering Neoliberal Hegemony', in *Neoliberal Hegemony: A Global Critique*, ed. by Dieter Plehwe, Bernhard Walpen and Gisela Neunhöffer (Abingdon: Routledge)

Pomerantz, Jeffrey, and Robin Peek. 2016. 'Fifty Shades of Open', *First Monday*, 21(5) <<https://doi.org/10.5210/fm.v21i5.6360>>

Pontika, Nancy, Petr Knoth, Matteo Cancellieri, and Samuel Pearce. 2015. 'Fostering Open Science to Research using a Taxonomy and an eLearning Portal' [conference paper], *iKnow: 15th International Conference on Knowledge Technologies and Data Driven Business*, 21–22 October 2015, Graz, Austria. <<http://oro.open.ac.uk/id/eprint/44719>> [accessed 18 June 2018]

Pooley, Jefferson. 2017. 'Scholarly Communications Shouldn't Just Be Open, But Non-Profit Too', *LSE Impact Blog*, 15 August 2017 <<http://blogs.lse.ac.uk/impactofsocialsciences/2017/08/15/scholarly-communications-shouldnt-just-be-open-but-non-profit-too/>> [31 August 2018]

Popowich, Sam. 2018. 'Libraries, Labour, Capital: On Formal and Real Subsumption', *Journal of Radical Librarianship*, 4 (2018): 5–19 <<https://journal.radicalibrarianship.org/index.php/journal/article/view/25>>

[accessed 19 June 2018]

Popper, Karl. 2002 [1957]. *The Poverty of Historicism* (Abingdon: Routledge)

——— 2002 [1959]. *The Logic of Scientific Discovery* (Abingdon: Routledge)

——— 2003 [1945]. *The Open Society and its Enemies. Volume 1: The Spell of Plato* (Abingdon: Routledge)

——— 2003a [1945a]. *The Open Society and its Enemies. Volume 2: Hegel and Marx* (Abingdon: Routledge)

Posada, Alejandro, and George Chen. 2017. 'Preliminary Findings: Rent Seeking by Elsevier. Publishers are Increasingly in Control of Scholarly Infrastructure and Why We Should Care: A Case Study of Elsevier', *The Knowledge Gap* [blog] <<http://knowledgegap.org/index.php/sub-projects/rent-seeking-and-financialization-of-the-academic-publishing-industry/preliminary-findings/>> [accessed 18 June 2018]

Pottage, Alain, and Brad Sherman. 2013. 'On the Prehistory of Intellectual Property', in *Concepts of Property in Intellectual Property Law*, ed. by Helena Howe and Jonathan Griffiths (Cambridge: Cambridge University Press), pp. 11–28 <<https://doi.org/10.1017/CBO9781107300880.003>>

Potts, Jason, John Hartley, Lucy Montgomery, Cameron Neylon, and Ellie Rennie. 2017. 'A Journal is a Club: A New Economic Model for Scholarly Publishing', *Prometheus: Critical Studies in Innovation*, 35(1): 75–92 <<https://doi.org/10.1080/08109028.2017.1386949>>

Power, Michael. 1997. *The Audit Society: Rituals of Verification* (Oxford: Oxford University Press)

Poynder, Richard. 2005. 'Interview with Vitek Tracz: Essential for Science', *Information Today*, 22(1) <<http://www.infotoday.com/it/jan05/poynder.shtml>> [accessed 31 August 2018]

Pratt, John. 1997. *The Polytechnic Experiment: 1965–1992* (Buckingham: Society for Research into Higher Education and Open University Press)

Priego, Ernesto. 2016. 'Signal, Not Solution: Notes on Why Sci-Hub Is Not Opening Access', *The Winnower*, 3: e145624.49417
<<https://doi.org/10.15200/winn.145624.49417>>

Priego, Ernesto, and Domenico Fiormonte. 2018. 'Empire and Scholarly Communications: Multinational Monopolies of Knowledge and the Global South', poster presentation, *22nd International Conference on Electronic Publishing*, Toronto, Canada, 23 June 2018 <<https://doi.org/10.6084/m9.figshare.6634484.v8>>

Prosser, David. 2003. 'From Here to There: A Proposed Mechanism for Transforming Journals From Closed to Open Access', *Learned Publishing*, 16(3): 163–66 <<https://doi.org/10.1087/095315103322110923>>

——— 2007. 'Public Policy and the Politics of Open Access', *LIBER Quarterly*, 17(2) <<https://doi.org/10.18352/lq.7877>>

——— 2014. 'Will David Willetts be Remembered for Progressive Push for Open Access or Pernicious Effects of Neoliberal Academy?', *LSE Impact Blog*, 21 July 2014 <<http://blogs.lse.ac.uk/impactofsocialsciences/2014/07/21/david-willetts-reflections-open-access-marketisation/>> [accessed 18 June 2018]

Ptak, Ralf. 2009. 'Neoliberalism in Germany', in *The Road from Mont Pelerin*, ed. by Philip Mirowski and Dieter Plehwe (Cambridge, MA; London: Harvard University Press)

Quan, Wei, Bikun Chen, and Fei Shu. 2017. 'Publish or Impoverish: An Investigation of the Monetary Reward System of Science in China (1999–2016)', *Aslib Journal of Information Management*, 69(5): 486–502 <<https://doi.org/10.1108/AJIM-01-2017-0014>>

Quinn, Ben. 2016. 'Review Decides Not to Change Freedom of Information Act', *Guardian*, 1 March 2016
<<https://www.theguardian.com/politics/2016/mar/01/freedom-of-information-review-decides-no-legal-changes-to-act>> [accessed 18 June 2018]

Quinn, Katherine, and Jo Bates. 2017. 'Resisting Neoliberalism: The Challenge of Activist Librarianship in English Higher Education', *Journal of Documentation*,

73(2): 317–35 <<https://doi.org/10.1108/JD-06-2016-0076>>

Quint, Barbara. 2002. 'BioMed Central Begins Charging Authors and Their Institutions for Article Publishing', *Information Today*, 7 January 2002
<<http://newsbreaks.infotoday.com/nbreader.asp?ArticleID=17276>> [accessed 18 June 2018]

Radical Open Access Collective. 2017. 'Philosophy'
<<http://radicaloa.disruptivemedia.org.uk/philosophy/>> [accessed 18 June 2018]

Raju, Reggie. 2018. 'Predatory Publishing from a Global South Perspective', *Library Publishing Coalition Blog*, 7 February 2018
<<https://librarypublishing.org/predatory-publishing-global-south-perspective/>>
[accessed 2 July 2018]

Ranelagh, John. 1991. *Thatcher's People* (London: Harper Collins)

Raymond, Eric. 2001. *The Cathedral and the Bazaar*, 2nd edn (Sebastopol, CA: O'Reilly)

RCUK. 2013. 'RCUK Announces Block Grants for Universities to Aid Drives to Open Access to Research Outputs', press release
<<http://webarchive.nationalarchives.gov.uk/20160615154956/http://www.rcuk.ac.uk/media/news/121108/>> [accessed 19 June 2018]

— 2013a. *RCUK Policy on Open Access and Supporting Guidance*
<<http://webarchive.nationalarchives.gov.uk/20140430153302/http://www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/RCUKOpenAccessPolicy.pdf>>
[accessed 19 June 2018]

— 2014. *RCUK APC Fund Distribution*
<<http://webarchive.nationalarchives.gov.uk/20180322130436/http://www.rcuk.ac.uk/documents/documents/rcuk-apcfunddistribution-pdf/>> [accessed 19 June 2018]

— 2015. [2015-16 Block Grant Allocation]
<<http://webarchive.nationalarchives.gov.uk/20180322125818/http://www.rcuk.ac.uk/documents/documents/2015-16-blockgrantallocation-pdf/>> [accessed 19 June 2018]

- 2015a. ‘Government Funding’
<<http://webarchive.nationalarchives.gov.uk/20180201190915/http://www.rcuk.ac.uk/about/aboutrcs/governmentfunding/>> [accessed 19 June 2018]
- 2015b. *Review of the Implementation of the RCUK Policy on Open Access* (Swindon: RCUK) <<https://www.ukri.org/files/legacy/documents/openaccessreport-pdf/>> [accessed 19 June 2018]
- 2016. [2016-17 RCUK Open Access Block Grant Awards]
<<http://webarchive.nationalarchives.gov.uk/20180201185635/http://www.rcuk.ac.uk/documents/documents/2016-17rcukopenaccessblockgrantawards-pdf/>> [accessed 19 June 2018]
- 2017. *RCUK Open Access Block Grant analysis 2013/14, 2014/2015 and 2015/2016*
<<http://webarchive.nationalarchives.gov.uk/20180201182643/http://www.rcuk.ac.uk/documents/oadoocs/rcukapcreturnsanalysis2014-16-pdf/>> [accessed 19 June 2018]
- 2017a. ‘Research Councils UK Confirm RCUK Open Access Block Grant Funding Levels Until 2020’, press release
<<http://webarchive.nationalarchives.gov.uk/20180322123315/http://www.rcuk.ac.uk/media/news/180717/>> [accessed 19 June 2018]
- Readings, Bill. 1996. *The University in Ruins* (Cambridge, MA: Harvard University Press)
- Reagle, Joseph. 2013. “‘Free as in Sexist?’ Free Culture and the Gender Gap’, *First Monday*, 18(1) <<http://firstmonday.org/ojs/index.php/fm/article/view/4291/3381>> [accessed 18 June 2018]
- Redalyc. 2017. ‘Acerca de’, *Redalyc.org*
<http://www.redalyc.org/redalyc/media/redalyc_n/Estaticas3/mision.html> [accessed 29 June 2018]
- Redhead, Claire. 2012. ‘Why CC-BY?’, *OASPA* <<https://oaspa.org/why-cc-by/>> [accessed 18 June 2018]
- Rees, Gareth, and Chris Taylor. 2006. ‘Devolution and the Restructuring of

Participation in Higher Education in Wales’, *Higher Education Quarterly*, 60(4): 370–91 <<https://doi.org/10.1111/j.1468-2273.2006.00329.x>>

REF. 2011. *REF 2014: Assessment Framework and Guidance on Submissions* <<https://www.ref.ac.uk/2014/pubs/2011-02/>> [accessed 31 August 2018]

Regier, Ryan. 2018. ‘The Institutionalized Racism of Scholarly Publishing’, *A Way of Happening: A Research Library Blog*, 9 June 2018 <<https://awayofhappening.wordpress.com/2018/06/09/the-institutionalized-racism-of-scholarly-publishing/>> [accessed 25 June 2018]

Reich, Justin, and Mizuko Ito. 2017. *From Good Intentions to Real Outcomes: Equity by Design in Learning Technologies* (Irvine, CA: Digital Media and Learning Research Hub)

RELX Group. 2018. ‘Annual Reports and Financial Statements 2017’ <<https://www.relx.com/investors/annual-reports/2017>> [accessed 18 June 2018]

Research Consulting. 2014. *Counting the Costs of Open Access* (London: Research Consulting) <<http://www.researchconsulting.co.uk/wp-content/uploads/2014/11/Research-Consulting-Counting-the-Costs-of-OA-Final.pdf>> [accessed 18 June 2018]

Research Council of Norway. 2014. *The Research Council’s Principles for Open Access to Scientific Publications* <<https://www.forskningsradet.no/servlet/Satellite?cid=1254008530857&pagename=VedleggPointer&target=blank>> [accessed 18 June 2018]

Research England. 2018. ‘Over 80% of Research Outputs Meet Requirements of REF 2021 Open Access Policy’, *Research England*, 14 June 2018 <<https://re.ukri.org/news-events-publications/news/oa-report-130618/>> [accessed 18 June 2018]

Research Information Network. 2010. *Challenges for Academic Libraries In Difficult Economic Times: A Guide for Senior Institutional Managers and Policy Makers* (London: Research Information Network) <<http://www.rin.ac.uk/system/files/attachments/Challenges-for-libraries-FINAL->

[March10.pdf](#)> [accessed 19 June 2018]

Ridley, Diane. 2012. *The Literature Review: A Step-by-Step Guide for Students* (London: SAGE)

RLUK. 2015. 'The Costs of Double Dipping', *RLUK*, 5 February 2015
<<http://www.rluk.ac.uk/about-us/blog/the-costs-of-double-dipping/>> [accessed 18 June 2018]

Robbins, Lionel. 1963. *Report of the Committee Appointed by the Prime Minister Under the Chairmanship of Lord Robbins 1961–63*
<<http://www.educationengland.org.uk/documents/robbins/robbins1963.html>>
[accessed 18 June 2018]

Rodgers, Christopher P., Eleanor A. Staughton, Angus J. L. Winchester, and Margherita Pieraccini. 2011. 'Introduction', in *Contested Common Land: Environmental Governance Past and Present*, ed. by Christopher P. Rodgers, Eleanor A. Staughton, Angus J. L. Winchester, and Margherita Pieraccini (Abingdon: Routledge)

Rodney, W. 1972. *How Europe Underdeveloped Africa* (London: Bogle L'Ouverture Publications)

Rodrigues, Rosângela Schwarz, Vitor Taga, and Mariana Faustino dos Passos. 2016. 'Research Articles about Open Access Indexed by Scopus: A Content Analysis', *Publications*, 4(4) <<https://doi.org/10.3390/publications4040031>>

Roe, George. 2010. 'Challenging the Control of Knowledge in Colonial India: Political Ideas in the Work of S. R. Ranganathan', *Library & Information History*, 26(1): 18–32 <<https://doi.org/10.1179/175834909X12593371068342>>

Roh, Charlotte. 2017. 'Scholarly Communication and Social Justice: Pushing to Subvert Traditional Publishing Power Structures', *American University Library's Colloquium on Scholarly Communication*
<<http://works.bepress.com/charlotteroh/40/>> [accessed 18 June 2018]

Rose, Jonathan. 2010. *The Intellectual Life of the British Working Classes* (New Haven & London: Yale University Press)

Rosenberg, Diana. 1993. 'Imposing Libraries: The Establishment of National Public Library Services in Africa, With Particular Reference to Kenya', *Third World Libraries*, 4(1): 35–44

<<http://worldlibraries.dom.edu/index.php/worldlib/article/view/272>> [accessed 19 June 2018]

Ross, Andrew. 2006. 'Technology and Below-the-Line Labor in the Copyfight over Intellectual Property', *American Quarterly*, 58(3): 743–66

<<https://doi.org/10.1353/aq.2006.0066>>

Ross-Hellauer, Tony. 2017. 'What is Open Peer Review? A Systematic Review' [version 2], *F1000Research*, 6: 588

<<https://doi.org/10.12688/f1000research.11369.2>>

Ross-Hellauer, Tony, Birgit Schmidt, and Bianca Kramer. 2018. 'Are Funder Open Access Platforms a Good Idea?', *PeerJ Preprints*, 6: e26954v1

<<https://doi.org/10.7287/peerj.preprints.26954v1>>

Røstvik, Camilla Mørk, and Aileen Fyfe. 2018. 'Ladies, Gentlemen, and Scientific Publication at the Royal Society, 1945–1990', *Open Library of Humanities*, 4(1)

<<https://doi.org/10.16995/olh.265>>

Rowley, Jennifer, and Richard Hartley. 2008. *Organizing Knowledge: An Introduction to Managing Access to Information*, 4th edn (Farnham: Ashgate)

Royle, Edward. 2012. *Modern Britain: A Social History 1750–2011*, 3rd edn (London: Bloomsbury)

Rüegg, Walter. 2004. 'Themes: The French and German University Models', in *A History of the University in Europe: Volume 3, Universities in the Nineteenth and Early Twentieth Centuries (1800–1945)*, ed. by Walter Rüegg (Cambridge: Cambridge University Press)

Russell, Andrew L. 2012. 'Modularity: An Interdisciplinary History of An Ordering Concept', *Information & Culture*, 47(3) <<https://doi.org/10.7560/IC47301>>

——— 2014. *Open Standards and the Digital Age: History, Ideology, and Networks* (New York: Cambridge University Press)

Saltman, Kenneth J. 2009. 'Historical and Theoretical Perspectives', in *Handbook of Social Justice in Education*, ed. by William Ayers, Therese Quinn, and David Stovall (Abingdon: Routledge)

Salus, Peter. 1994. *A Quarter Century of Unix* (Reading, MA: Addison-Wesley)

Samuelson, Pamela. 2011. 'The Uneasy Case for Software Copyrights Revisited', *George Washington Law Review*, 79(6)

<https://works.bepress.com/pamela_samuelsn/30/> [accessed 18 June 2018]

Sartori, Andre, and Danny Kingsley. 2017. 'Flipping Journals or Filling Pockets? Publisher Manipulation of OA Policies', *Unlocking Research* [blog]

<<https://unlockingresearch.blog.lib.cam.ac.uk/?p=1726>> [accessed 19 June 2018]

Schimmer, Ralf, Kai Karin Geschuhn, and Andreas Vogler. 2015. *Disrupting the Subscription Journals' Business Model for the Necessary Large-Scale Transformation to Open Access: A Max Planck Digital Library Open Access Policy White Paper* (Munich: Max Planck Society) <<https://doi.org/10.17617/1.3>>

Schol Comm Lab. 2018. 'Preliminary Findings from the Review, Promotion, and Tenure Study', *ScholCommLab*, 30 May 2018

<<https://www.scholcommlab.ca/2018/05/30/preliminary-findings-from-the-review-promotion-and-tenure-study/>> [accessed 18 June 2018]

Scholz, Trebor. 2014. 'Platform Cooperativism vs. the Sharing Economy', *Medium*, 5 December 2014 <<https://medium.com/@trebors/platform-cooperativism-vs-the-sharing-economy-2ea737f1b5ad>> [accessed 18 June 2018]

Scholz, Trebor, and Nathan Schneider (eds). 2017. *Ours to Hack and to Own: The Rise of Platform Cooperativism, a New Vision for the Future of Work and a Fairer Internet* (New York and London: Or Books)

Schonfeld, Roger C. 2017. 'The Center for Open Science, Alternative to Elsevier, Announces New Preprint Services Today', *Ithaka S+R* [blog], 29 August 2017.

<<http://www.sr.ithaka.org/blog/the-center-for-open-science-alternative-to-elsevier-announces-new-preprint-services-today/>> [accessed 18 June 2018]

Schöpfel, Joachim, and Ulrich Herb. 2018. *Open Divide: Critical Studies on Open*

Access (Sacramento, CA: Library Juice Press)

Schwarz, A., and L. Eckstein (eds). 2014. *Postcolonial Piracy: Media Distribution and Cultural Production in the Global South* (London: Bloomsbury)

Schweik, Charles M. 2011. 'Free/Open-Source Software as a Framework for Establishing Commons in Science', in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)

Schweik, Charles M. and English, Robert. 2007. 'Tragedy of the FOSS Commons? Investigating the Institutional Designs of Free/Libre and Open Source Software Projects', *First Monday*, 12(2) <<https://doi.org/10.5210/fm.v12i2.1619>>

SciELO. 2015. 'Rebuttal to the Blog Post "Is SciELO a Publication Favela?" Authored by Jeffrey Beall', *SciELO in Perspective* [blog], 25 August 2015 <<https://blog.scielo.org/en/2015/08/25/rebuttal-to-the-blog-post-is-scielo-a-publication-favela-authored-by-jeffrey-beall/>> [accessed 31 August 2018]

Science Europe. 2016. *Open Access Publishing Policies in Science Europe Member Organisations: Key Results from Science Europe and Global Research Council Surveys* <https://www.scienceeurope.org/wp-content/uploads/2016/10/SE_OpenAccess_SurveyReport.pdf> [accessed 18 June 2018]

SCONUL. 2012. *Annual Library Statistics 2010–2011* (London: SCONUL) <<https://www.sconul.ac.uk/sites/default/files/documents/ALS1011.pdf>> [accessed 19 June 2018]

Seale, Maura. 2013. 'The Neoliberal Library', in *Information Literacy and Social Justice: Radical Professional Praxis*, ed. by Lua Gregory and Shana Higgins (Library Juice Press), pp. 39–61 <<http://eprints.rclis.org/20497/>> [accessed 18 June 2018]

Secord, James A. 2009. 'Science, Technology and Mathematics', in *The Cambridge History of the Book in Britain Volume 6: 1830–1914*, ed. by D. McKitterick (Cambridge: Cambridge University Press)

Selwyn, Neil. 2015. 'Never Believe the Hype: Questioning Digital "Disruption" and Other Big Ideas', in *Teaching and Digital Technologies: Big Issues and Critical Questions*, ed. by Michael Henderson and Geoff Romeo (Melbourne: Cambridge University Press), pp. 182–93

SFC. [n.d.]. *The Research Excellence Grant Funding Formula* <http://www.sfc.ac.uk/web/FILES/ResearchInnovation/Research_Excellent_Grant_funding_formula_updated_May_18.pdf> [accessed 19 June 2018]

Shamash, Katie. 2017. 'APC Data Collected by Jisc 2013–2016', *figshare* <<https://doi.org/10.6084/m9.figshare.5335999.v2>>

——— 2017a. 'Article Processing Charges in 2016', *Jisc Scholarly Communications* [blog], 23 August 2017 <<https://scholarlycommunications.jiscinvolve.org/wp/2017/08/23/article-processing-charges-in-2016/>> [accessed 18 June 2018]

Shapin, Steven. 1991. "A Scholar and a Gentleman": The Problematic Identity of the Scientific Practitioner in Early Modern England', *History of Science*, 29(3): 279–327 <<https://doi.org/10.1177/007327539102900303>>

Shared Intelligence. 2015. *Access to Research: A Report to the Publishers Licensing Society and the Society of Chief Librarians*. <<http://www.pls.org.uk/media/199841/Access-to-Research-final-report-Oct-2015.pdf>> [accessed 18 June 2018]

Sharp, Catherine. 2015. *Institutional Policies on the Use of Open Access Funds: A Report from the Jisc Pathways to Open Access Project* <<http://blogs.ucl.ac.uk/open-access/files/2015/12/Pathways-to-OA-APC-funds-survey-report-Dec-15.pdf>> [accessed 18 June 2018]

Shattock, Michael. 2008. 'The Change From Public to Private Governance of British Higher Education: Its Consequences for Higher Education Policy Making 1980–2006', *Higher Education Quarterly*, 62(3): 181–203 <<https://doi.org/10.1111/j.1468-2273.2008.00392.x>>

——— 2012. *Making Policy in British Higher Education, 1945–2011* (Maidenhead:

Open University Press)

Shearmur, Jeremy. 1996. *The Political Thought of Karl Popper* (New York: Routledge)

——— 2006. ‘Hayek, “The Road to Serfdom”, and the British Conservatives’, *Journal of the History of Economic Thought*, 28(3): 309–14
<<https://doi.org/10.1080/10427710600857807>>

Shera, Jesse H. 1949. *Foundations of the Public Library: The Origins of the Public Library Movement in New England, 1629–1855* (Chicago: University of Chicago Press) <<https://archive.org/details/foundationsofthe012037mbp>> [accessed 18 June 2018]

SHERPA. 2006. ‘SHERPA Launches New Advice List – JULIET’
<<http://www.sherpa.ac.uk/news/julietrelease.html>> [accessed 18 June 2018]

Shieber, Stuart M. 2013. ‘Ecumenical Open Access and the Finch Report Principles’, in *Debating Open Access*, ed. by Nigel Vincent and Chris Wickham (London: British Academy) <<https://www.britac.ac.uk/sites/default/files/Documents/Debating%20Open%20Access-Shieber-Ecumenical%20open%20access%20and%20the%20Finch%20Report%20principles%20%28June%202013%29%20%282%29.pdf>> [accessed 18 June 2018]

Shockey, Kyle. 2016. ‘Intellectual Freedom Is Not Social Justice: The Symbolic Capital of Intellectual Freedom in ALA Accreditation and LIS Curricula’, *Progressive Librarian*, 44: 101–10
<<http://www.progressivelibrariansguild.org/PL/PL44/101.pdf>> [accessed 18 June 2018]

Sian, Katy. 2017. ‘Being Black in a White World: Understanding Racism in British Universities / Ser negro en un mundo blanco: comprendiendo el racismo en las universidades británicas’, *Papeles del CEIC. International Journal on Collective Identity Research*, vol. 2017/2, papel 176, CEIC (Centro de Estudios sobre la Identidad Colectiva), UPV/EHU Press <<https://doi.org/10.1387/pceic.17625>>

Siler, Kyle, Stefanie Haustein, Elise Smith, Vincent Larivière, and Juan Pablo

Alperin. 2018. 'Authorial and Institutional Stratification in Open Access Publishing: The Case of Global Health Research', *PeerJ*, 6: e4269
<<https://doi.org/10.7717/peerj.4269>>

Simon, Brian. 1965. *Education and the Labour Movement, 1870–1920* (London: Lawrence & Wishart)

Šimukovič, Elena. 2014. 'Open Science: Governance Structures and Incentive Systems, Research Proposal for a PhD Project', *Academia.edu*
<https://www.academia.edu/8968444/Open_Science_Governance_structures_and_incentive_systems_old_version> [accessed 18 June 2018]

——— 2016. 'Battling for "Openness". Applying Situational Analysis to Negotiations Between Dutch Universities and Elsevier', in *Positioning and Power in Academic Publishing: Players, Agents and Agendas*, ed. by Fernando Loizides and Birgit Schmidt (Amsterdam: IOS Press) <<https://doi.org/10.3233/978-1-61499-649-1-115>>

——— 2016a. 'Open Access – the Better Access? Academic Publishing and its Politics', *15th Annual STS Conference: Critical Issues in Science, Technology and Society Studies*, Graz, Austria, 9–10 May 2016 <<http://eprints.rclis.org/29269/>> [accessed 17 July 2018]

——— forthcoming. 'Of Hopes, Villains and Trojan Horses – Open Access Academic Publishing and its Battlefields' (doctoral thesis, University of Vienna)

Skidelsky, Robert. 2013. *John Maynard Keynes, 1883–1946: Economist, Philosopher, Statesman* (London: Penguin)

Smart, Scott, Charles Watkinson, Gary Dunham, and Nicholas Fitzgerald. 2016. 'Determining the Financial Cost of Scholarly Book Publishing', *Journal of Electronic Publishing*, 19(1) <<https://doi.org/10.3998/3336451.0019.102>>

Smith, Adam. 2015. *Alternative Open Access Publishing Models: Exploring New Territories in Scholarly Communication* ([Brussels]: European Commission)
<https://ec.europa.eu/futurium/en/system/files/ged/oa_report.pdf> [accessed 18 June 2018]

Smith, Kevin. 2017. 'OA Beyond APCs: A Conference Report', *In The Open* <<http://>

intheopen.net/2017/02/oa-beyond-apcs-a-conference-report/> [accessed 18 June 2018]

Smith, Richard. 2013. 'The Irrationality of the REF', *BMJ* [Blog], <<http://blogs.bmj.com/bmj/2013/05/07/richard-smith-the-irrationality-of-the-ref/>> [accessed 19 June 2018]

Smith, Vardaman R. 1998. 'Friedman, Liberalism and the Meaning of Negative Freedom', *Economics and Philosophy*, 14: 75–93 <<https://doi.org/10.1017/S0266267100004946>>

Smith, MacKenzie, Ivy Anderson, Bo-Christer Björk, Mark McCabe, David Solomon, Greg Tananbaum, Carol Tenopir, and Matthew Willmott. 2016. *Pay It Forward: Investigating a Sustainable Model of Open Access Article Processing Charges for Large North American Research Institutions* (Davis, CA: University of California Libraries) <http://icis.ucdavis.edu/wp-content/uploads/2016/07/UC-Pay-It-Forward-Final-Report.rev_7.18.16.pdf> [accessed 18 June 2018]

Soares, Joseph A. 2007. *The Power of Privilege: Yale and America's Elite Colleges* (Stanford: Stanford University Press)

Solomon, David J., Mikael Laakso, and Bo-Christer Björk. 2016. *Converting Scholarly Journals to Open Access: A Review of Approaches and Experiences* <<http://nrs.harvard.edu/urn-3:HUL.InstRepos:27803834>> [accessed 18 June 2018]

Solon, Olivia, and Sam Levin. 2017. 'Divisive Russian-Backed Facebook Ads Released to the Public', *Guardian*, 1 November 2017 <<https://www.theguardian.com/technology/2017/nov/01/facebook-ads-russia-us-election-fake-news-released-public>> [accessed 18 June 2018]

Somoza-Fernández, Marta, Josep-Manuel Rodríguez-Gairín, and Cristóbal Urbano. 2018. 'Journal Coverage of the Emerging Sources Citation Index', *Learned Publishing*, 31(3): 199–204 <<https://doi.org/10.1002/leap.1160>>

Sondervan, Jeroen. 2017. 'Netherlands Organisation for Scientific Research (NWO) Terminates Open Access Incentive Fund on January 2018 – Some Considerations', *Open Access in Media Studies* <<https://oamediaudies.com/2017/06/27/netherlands->

[organisation-for-scientific-research-nwo-terminates-open-access-incentive-fund-on-january-2018-some-considerations/](#)> [accessed 18 June 2018]

Spezi, Valérie, Simon Wakeling, Stephen Pinfield, Claire Creaser, Jenny Fry, and Peter Willett. 2017. 'Open-Access Mega-Journals: The Future of Scholarly Communication or Academic Dumping Ground? A Review', *Journal of Documentation*, 73(2), 263–83 <<https://doi.org/10.1108/JD-06-2016-0082>>

Spieker, Jörg. 2013. 'Defending the Open Society: Foucault, Hayek, and the Problem of Biopolitical Order', *Economy and Society*, 42(2): 304–21 <<https://doi.org/10.1080/03085147.2012.687929>>

Springer. 2004. 'Open Choice: Springer Adds New Publication Model', press release, 1 July 2004 <<https://web.archive.org/web/20170721154844/http://www.springer.com/about+springer/media/pressreleases?SGWID=0-11002-2-803577-0>> [accessed 18 June 2018]

——— 2018. 'Institutional Agreements' <<https://www.springer.com/gb/open-access/springer-open-choice/springer-compact>> [accessed 18 June 2018]

Srnicek, Nick. 2017. *Platform Capitalism* (Cambridge: Polity)

Stallman, Richard. 2002. *Free Software, Free Society: Selected Essays of Richard M. Stallman* (Boston, MA: GNU Press)

——— 2016 [2007]. 'Why Open Source Misses the Point of Free Software', *GNU*. <<https://www.gnu.org/philosophy/open-source-misses-the-point.en.html>> [accessed 18 June 2018]

Star, Susan L., and J. R. Griesemer. 1989. 'Institutional Ecology, "Translations" and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39', *Social Studies of Science*, 19(3): 387–420 <<https://doi.org/10.1177/030631289019003001>>

Statcounter. 2018. 'Desktop Operating System Market Share Worldwide: July 2017 to July 2018' <<http://gs.statcounter.com/os->

[market-share/desktop/worldwide/#monthly-201606-201706](#)> [accessed 8 August 2018]

—— 2018a. ‘Mobile Operating System Market Share Worldwide: July 2017 to July 2018’ <<http://gs.statcounter.com/os-market-share/mobile/worldwide>> [accessed 8 August 2018]

Stedman Jones, Daniel. 2012. *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics* (Princeton, NJ: Princeton University Press)

Stephan, Paula. 2015. *How Economics Shapes Science* (Cambridge, MA: Harvard University Press)

Stern, Nicholas. 2016. *Building on Success and Learning from Experience: An Independent Review of the Research Excellence Framework* (London: Department for Business, Energy and Industrial Strategy)
<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/541338/ind-16-9-ref-stern-review.pdf> [accessed 18 June 2018]

Stigler, George. 1963. *The Intellectual and the Market Place* (New York: Free Press of Glencoe)

Stone, Graham. 2017. ‘Developing a Sustainable Publishing Model for a University Press: A Case Study of the University of Huddersfield, 2011–2015’ (doctoral thesis, University of Huddersfield) <<http://eprints.hud.ac.uk/id/eprint/33791/>> [accessed 18 June 2018]

Stone, Lawrence. 1964. ‘The Educational Revolution in England, 1560–1640’, *Past and Present*, 28(1): 41–80 <<https://doi.org/10.1093/past/28.1.41>>

Strong, Michele M. 2014. *Education, Travel and the ‘Civilisation’ of the Victorian Working Classes* (Basingstoke: Palgrave Macmillan)

Suber, Peter. 2003. ‘Objection-Reply: Do Journal Processing Fees Exclude the Poor?’, *SPARC Open Access Newsletter*, 67(2)
<<https://dash.harvard.edu/handle/1/4552039>> [accessed 9 July 2018]

—— 2003a. ‘The Taxpayer Argument for Open Access’, *SPARC Open Access*

- Newsletter*, 65 <<https://dash.harvard.edu/handle/1/4725013>> [accessed 9 July 2018]
- 2011. ‘Creating an Intellectual Commons through Open Access’, in *Understanding Knowledge as a Commons: From Theory to Practice*, ed. by Charlotte Hess and Elinor Ostrom (Cambridge, MA: MIT Press)
- 2012. *Open Access* (Cambridge, MA; London: MIT Press)
- Sulistyo-Basuki, L. 1998. ‘The Rise and Growth of Libraries in Pre-War Indonesia’, *Library History*, 14(1): 55–64 <<https://doi.org/10.1179/lib.1998.14.1.55>>
- Sundaram, R. 2009. *Pirate Modernity: Delhi’s Media Urbanism* (London: Routledge)
- Swan, Alma. 2010. ‘The Open Access Citation Advantage: Studies and Results to Date’, working paper <<https://eprints.soton.ac.uk/id/eprint/268516>> [accessed 19 June 2018]
- Swartz, Aaron. 2016. ‘Guerilla Open Access Manifesto’, in *The Boy Who Could Change the World: The Writings of Aaron Swartz* (London: Verso), pp. 26–27
- Swauger, Shea. 2017. ‘Open Access, Power, and Privilege: A Response to “What I Learned From Predatory Publishing”’, *College & Research Libraries News*, 78(11) <<http://crln.acrl.org/index.php/crlnews/article/view/16837/18435>> [accessed 18 June 2018]
- Sweeney, David. 2018. ‘Open Access – Are We Almost There for REF?’, *WonkHE*, 14 June 2018 <<https://wonkhe.com/blogs/open-access-are-we-almost-there-for-ref/>> [accessed 21 June 2018]
- Syal, Rajeev. 2015. ‘Freedom of Information Act Review “May Curb Access to Government Papers”’, *Guardian*, 17 July 2015 <<https://www.theguardian.com/politics/2015/jul/17/ministers-to-review-freedom-of-information-act>> [accessed 18 June 2018]
- Tanner, Simon. 2017. ‘Gold is a Dead Model for Open Access Books’, *When the Data Hits the Fan!*, 18 June 2017 <<https://simon-tanner.blogspot.co.uk/2017/06/gold-is-dead-model-for-open-access->

[books.html](#)> [accessed 18 June 2018]

Taylor & Francis. [n.d.]. ‘Transfer of Copyright Agreement’

<<http://www.tandf.co.uk/journals/authors/copyrightinc.pdf>> [accessed 18 June 2018]

Thompson, John B. 2005. *Books in the Digital Age* (Cambridge: Polity)

Thorne, Michelle. 2009. ‘Openwashing’

<<http://michellethorne.cc/2009/03/openwashing/>> [accessed 18 June 2018]

Tickell, Adam. 2016. *Open Access to Research Publications: Independent Advice*

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499455/ind-16-3-open-access-report.pdf> [accessed 18 June 2018]

Tkacz, Nathaniel. 2012. ‘From Open Source to Open Government: A Critique of Open Politics’, *Ephemera*, 12(4): 386–405 <<http://wrap.warwick.ac.uk/53295>> [31 August 2018]

——— 2015. *Wikipedia and the Politics of Openness* (Chicago, IL; London: University of Chicago Press)

Toledo, Elea Giménez, and Juan Felipe Córdoba Restrepo. 2018. ‘Ciencia, circulación y apropiación: la edición universitaria y el acceso abierto’, in *Acceso Abierto*, ed. by José Diego González (Centro Regional para el Fomento del Libro en América Latina y el Caribe), pp. 55–70

<http://cerlalc.org/wp-content/uploads/2018/03/CERLALC_Publicaciones_Derecho_de_autor_120318.pdf> [accessed 9 August 2018]

Tonta, Yaşar, Güleda Doğan, Umut Al, and Orçun Madran. 2015. *Open Access Policies of Research Funders: The Case Study of the Austrian Science Fund (FWF) (Pasteur4OA)* <https://www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF_Publikationen/FWF-Selbstevaluation/FWF-OA-Policy-Case-Study_Pasteur4OA.pdf> [accessed 19 June 2018]

Toye, Richard. 2013. ‘From “Consensus” to “Common Ground”’: The Rhetoric of the Postwar Settlement and its Collapse’, *Journal of Contemporary History*, 48(1): 3–23 <<https://doi.org/10.1177/0022009412461816>>

Traue, J. E. 2007. 'The Public Library Explosion in Colonial New Zealand', *Libraries & the Cultural Record*, 42(2): 151–64
<<http://www.jstor.org/stable/25549402>> [accessed 18 June 2018]

Traynor, Cath, and Laura Foster. 2017. 'Principles and Practice in Open Science: Addressing Power and Inequality Through "Situated Openness"', *OCSDnet* <<https://ocsdnet.org/principles-and-practice-in-open-science-addressing-power-and-inequality-through-situated-openness/>> [accessed 31 August 2018]

Tribe, Keith. 1995. *Strategies of Economic Order: German Economic Discourse 1750–1950* (Cambridge: Cambridge University Press)

——— 2009. 'Liberalism and Neoliberalism in Britain, 1930–1980', in *The Road from Mont Pelerin*, ed. by Philip Mirowski and Dieter Plehwe (Cambridge, MA; London: Harvard University Press)

Turner, Frank M. (ed.). 1996. *The Idea of a University: John Henry Newman* (New Haven, CT: Yale University Press)

Tylecote, Mabel. 1941. *The Education of Women at Manchester University, 1883–1933* (Manchester: Manchester University Press)

UK Government. [n.d.]. 'Rights of Way and Accessing Land', *Gov.uk*
<<https://www.gov.uk/right-of-way-open-access-land/use-your-right-to-roam>>
[accessed 18 June 2018]

——— [n.d.].a. 'The Rt Hon Greg Clark MP', *Gov.uk*
<<https://www.gov.uk/government/people/greg-clark>> [accessed 18 June 2018]

——— 2018. 'PM to Give Speech on Education to Mark Launch of Post-18 Education and Funding Review', *Gov.uk*, 18 February 2018 <<https://www.gov.uk/government/news/pm-to-give-speech-on-education-to-mark-launch-of-post-18-education-and-funding-review>> [accessed 18 June 2018]

UK Research and Innovation. [n.d.]. 'Executive Committee'
<<https://www.ukri.org/about-us/governance-and-structure/executive-committee/>>
[accessed 18 June 2018]

- 2017. ‘REF 2021 Decisions on Staff and Outputs’ <<https://re.ukri.org/documents/2018/annex-d-decisions-on-staff-and-outputs-pdf/>> [accessed 18 June 2018]
- 2018. *Strategic Prospectus: Building the UKRI Strategy* (Swindon: UK Research and Innovation) <<https://www.ukri.org/about-us/strategic-prospectus/>> [accessed 18 June 2018]
- 2018a. ‘UK-Wide Survey on the Delivery of Funders’ Open Access Policies’ <[https://re.ukri.org/documents/2018/annex-b-uk-wide-survey-delivery-of-funders-
oa-policies-pdf/](https://re.ukri.org/documents/2018/annex-b-uk-wide-survey-delivery-of-funders-oa-policies-pdf/)> [accessed 18 June 2018]
- UK-SCL. [n.d.]. ‘Policy Summary’ <<http://ukscl.ac.uk/policy-summary/>> [accessed 18 June 2018]
- UNESCO. [n.d.]. ‘UIS Statistics’ <<http://data.uis.unesco.org/>> [accessed 1 March 2018]
- 2015. *UNESCO Science Report: Towards 2030* (Paris: UNESCO) <<http://unesdoc.unesco.org/images/0023/002354/235406e.pdf>> [accessed 18 June 2018]
- UNHCR. 2018. *Figures at a Glance* <<http://www.unhcr.org/uk/figures-at-a-glance.html>> [accessed 19 June 2018]
- United Nations. 2017. *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables* (New York: United Nations) <https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf> [accessed 18 June 2018]
- United States District Court Southern District of New York. 2015. ‘Elsevier vs Sci-Hub’ <<https://torrentfreak.com/images/elsevier-complaint.pdf>> [accessed 18 June 2018]
- Valdés, Juan Gabriel. 1995. *Pinochet’s Economists: The Chicago School in Chile* (Cambridge: Cambridge University Press)
- Van Horn, Rob. 2009. ‘Reinventing Monopoly and the Role of Corporations: The Roots of Chicago Law and Economics’, in *The Road from Mont Pelerin*, ed. by

Philip Mirowski and Dieter Plehwe (Cambridge, MA; London: Harvard University Press)

Van Horn, Rob, and Philip Mirowski. 2009. 'The Rise of the Chicago School of Economics and the Birth of Neoliberalism', in *The Road from Mont Pelerin*, ed. by Philip Mirowski and Dieter Plehwe (Cambridge, MA; London: Harvard University Press)

Veletsianos, George, and Royce Kimmons. 2012. 'Assumptions and Challenges of Open Scholarship', *The International Review of Research in Open and Distance Learning*, 13: 166–89
<<http://www.irrodl.org/index.php/irrodl/article/view/1313/2343>> [accessed 18 June 2018]

Vernon, Richard. 1976. 'Great Society and Open Society – Liberalism in Hayek and Popper', *Canadian Journal of Political Science/Revue canadienne de science politique*, 9(2): 261–76.

Vessuri, Hebe, Jean-Claude Guédon, and Ana María Cetto. 2014. 'Excellence or Quality? Impact of the Current Competition Regime on Science and Scientific Publishing in Latin America and Its Implications for Development', *Current Sociology*, 62(5): 647–65 <<https://doi.org/10.1177/0011392113512839>>

Vilhena, Daryl A., Jacob G. Foster, Martin Rosvall, Jevin D. West, James Evans, and Carl T. Bergstrom. 2014. 'Finding Cultural Holes: How Structure and Culture Diverge in Networks of Scholarly Communication', *Sociological Science*, 1: 221–38
<<https://doi.org/10.15195/v1.a15>>

Waaijers, Leo. 2017. 'What is the Price Per Article?', *Science Guide*
<<http://www.scienceguide.nl/201709/what-is-the-price-per-article.aspx>> [accessed 19 June 2018]

Waal, Alex De. 2016. 'African Academics Face a Huge Divide Between Their Real and Scholarly Selves', *Conversation*, 10 March 2016
<<https://theconversation.com/african-academics-face-a-huge-divide-between-their-real-and-scholarly-selves-55899>> [accessed 29 June 2018]

Wacker, Gudrun. 2003. 'The Internet and Censorship in China', in *China and the Internet: Politics of the Digital Leap Forward*, ed. by Christopher R. Hughes and Gudrun Wacker (Abingdon: Routledge)

Wakeling, Simon, Valérie Spezi, Claire Creaser, Jenny Fry, Stephen Pinfield, and Peter Willett. 2017. 'Open Access Megajournals: The Publisher Perspective (Part 2: Operational Realities)', *Learned Publishing*, 30(4): 313–22 <<https://doi.org/10.1002/leap.1118>>

Walker, Thomas J. 1998. 'Free Internet Access to Traditional Journals: Can Scientists Find Ways to Share Published Research Without High Cost? The Experiences of One Society Suggest It Can Be Done Cheaply, Even Profitably', *American Scientist*, 86(5): 463–71 <<http://www.jstor.org/stable/27857100>> [accessed 19 June 2018]

Ward, Kevin, and Kim England. 2007. 'Introduction: Reading Neoliberalization', in *Neoliberalization: States, Networks, Peoples*, ed. by Kim England and Kevin Ward (Hoboken, NJ: Blackwell)

Ward, Steven C. 2014. *Neoliberalism and the Global Restructuring of Knowledge and Education* (Abingdon: Routledge)

Ware, Mark, and Michael Mabe. 2015. *The STM Report: An Overview of Scientific and Scholarly Journal Publishing*, 4th edn (The Hague: International Association of Scientific, Technical and Medical Publishers) <http://www.stm-assoc.org/2015_02_20_STM_Report_2015.pdf> [accessed 18 June 2018]

Watters, Audrey. 2012. 'Openwashing: n., having an appearance of open-source and open-licensing for marketing purposes, while continuing proprietary practices', *Twitter* <<https://twitter.com/audreywatters/status/184387170415558656?lang=en-gb>> [accessed 14 December 2015]

——— 2017. 'Driverless Ed-Tech: The History of the Future of Automation in Education', *Hack Education*, 20 March 2017 <<http://hackeducation.com/2017/03/30/driverless>> [accessed 18 June 2018]

- 2017a. ‘Tweets Deleted’, *Audrey Watters*, 31 March 2017
<<http://audreywatters.com/2017/03/31/deleted>> [accessed 18 June 2018]
- 2018. ‘Invisible Labor and Digital Utopias’, *Hack Education*, 4 May 2018
<<http://hackeducation.com/2018/05/04/cuny-labor-open>>
- Weale, Sally. 2017. ‘Open University Jobs at Risk in £100m “Root and Branch” Overhaul’, *Guardian*, 13 June 2017
<<https://www.theguardian.com/education/2017/jun/13/open-university-jobs-at-risk-in-100m-root-and-branch-overhaul>> [accessed 9 August 2018]
- Weber, Steven. 2004. *The Success of Open Source* (Cambridge, MA; London: Harvard University Press)
- Weinbren, Daniel. 2014. *The Open University: A History* (Manchester: Manchester University Press)
- Wellcome Trust. [n.d.]. ‘Grant Funding Data 2016–2017’
<<https://wellcome.ac.uk/funding/managing-grant/grant-funding-data-2016-2017>> [accessed 19 June 2018]
- [n.d.].a. ‘Investments’ <<https://wellcome.ac.uk/about-us/investments>> [accessed 18 June 2018]
- 2003. *Economic Analysis of Scientific Research Publishing: A Report Commissioned by the Wellcome Trust* (London: Wellcome Trust)
<https://wellcome.ac.uk/sites/default/files/wtd003182_0.pdf> [accessed 19 June 2018]
- 2004. *Costs and Business Models in Scientific Research Publishing* (London: Wellcome Trust) <https://wellcome.ac.uk/sites/default/files/wtd003184_0.pdf> [accessed 11 July 2018]
- 2016. *Annual Report and Financial Statements 2016* (London: Wellcome Trust)
<https://wellcome.ac.uk/sites/default/files/WellcomeTrustAnnualReportFinancialStatements_160930.pdf> [accessed 19 June 2018]

—— 2016a. ‘Wellcome Trust and COAF Open Access Spend, 2014–15’, *Wellcome Trust* [blog], 23 March 2016 <<https://blog.wellcome.ac.uk/2016/03/23/wellcome-trust-and-coaf-open-access-spend-2014-15/>> [accessed 19 June 2018]

—— 2017. *Annual Report and Financial Statements 2017* (London: Wellcome Trust) <<https://wellcome.ac.uk/sites/default/files/wellcome-trust-annual-report-and-financial-statements-2017.pdf>> [accessed 19 June 2018]

Weller, Martin. 2011. *The Digital Scholar: How Technology is Transforming Scholarly Practice* (London: Bloomsbury Academic) <<https://doi.org/10.5040/9781849666275>>

—— 2014. *The Battle for Open: How Openness Won and Why it Doesn't Feel Like Victory* (London: Ubiquity Press) <<https://doi.org/10.5334/bam>>

—— 2018. ‘The Digital Scholar Revisited’, in *The Digital Scholar: Philosopher's Lab*, 1(2): 52–71 <<https://doi.org/10.5840/dspl20181218>>

Weller, Martin, Beatriz de los Arcos, Rob Farrow, Rebecca Pitt, and Patrick McAndrew. 2017. ‘What Can OER Do for Me? Evaluating the Claims for OER’, in *Open: The Philosophy and Practices that are Revolutionizing Education and Science*, ed by Rajiv S. Jhangiani and Robert Biswas-Diener (London: Ubiquity Press), pp. 67–77 <<https://doi.org/10.5334/bbc.e>>

Weller, Martin, Katy Jordan, Irwin DeVries, and Viv Rolfe. 2018. ‘Mapping the Open Education Landscape: Citation Network Analysis of Historical Open and Distance Education Research’, *Open Praxis*, 10(2) <<https://doi.org/10.5944/openpraxis.10.2.822>>

Wellmon, Chad, and Andrew Pipe. 2017. ‘Publication, Power, and Patronage: On Inequality and Academic Publishing’, *Critical Inquiry* <http://criticalinquiry.uchicago.edu/publication_power_and_patronage_on_inequality_and_academic_publishing/> [accessed 29 August 2018]

Wenzler, John. 2017. ‘Scholarly Communication and the Dilemma of Collective Action: Why Academic Journals Cost Too Much’, *College & Research Libraries*, 78(2) <<https://doi.org/10.5860/crl.78.2.183>>

West, Joel. 2007. 'Seeking Open Infrastructure: Contrasting Open Standards, Open Source and Open Innovation', *First Monday*, 12(6)
<<http://firstmonday.org/ojs/index.php/fm/article/view/1913/1795>> [accessed 18 June 2018]

Westminster Higher Education Forum. 2018. *The Next Steps for Delivering Open Access – Implementation, Expansion and International Trends*, 20 February 2018, London.

WhatDoTheyKnow. 2015. 'Meetings Between BIS Officials and Academic Publishers', *whatdotheyknow.com*
<https://www.whatdotheyknow.com/request/meetings_between_bis_officials_a> [accessed 19 June 2018]

White, Ben, Saturnino M. Borrás Jr., Ruth Hall, Ian Scoones, and Wendy Wolford. 2012. 'The New Enclosures: Critical Perspectives on Corporate Land Deals', *Journal of Peasant Studies*, 39(3-4): 619–47
<<https://doi.org/10.1080/03066150.2012.691879>>

Whitehead, Clive. 2005. 'The Historiography of British Imperial Education Policy, Part I: India', *History of Education*, 34(3): 315–29

——— 2005a. 'The Historiography of British Imperial Education Policy, Part II: Africa and the Rest of the Colonial Empire', *History of Education*, 34(4): 441–54

Whyte, William. 2015. *Redbrick: A Social and Architectural History of Britain's Civic Universities* (Oxford: Oxford University Press)

Wickham, Chris, and Vincent, Nigel. 2013. 'Debating Open Access: Introduction', in *Debating Open Access*, ed. by Nigel Vincent and Chris Wickham (London: British Academy) <<https://www.britac.ac.uk/sites/default/files/Debating-Open-Access-0-Introduction.pdf>> [accessed 9 August 2018]

Wiegand, Wayne A. 2015. *Part of Our Lives: A People's History of the American Public Library* (New York: Oxford University Press)

Wikipedia contributors. 2018. 'Sci-Hub', *Wikipedia*, last updated 14 June 2018
<<https://en.wikipedia.org/wiki/Sci-Hub>> [accessed 18 June 2018]

- Wilder, Craig Steven. 2013. *Ebony & Ivy: Race, Slavery, and the Troubled History of America's Universities* (New York: Bloomsbury)
- Wiley. 2017. 'Form 10-K: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, for the Fiscal Year Ended: April 30, 2017' <<https://s3.amazonaws.com/wiley-ecomm-prod-content/April+30%2C+2017.pdf>> [accessed 18 June 2018]
- Wiley, David. [n.d.]. 'Defining the "Open" in Open Content and Open Educational Resources', *Open Content* <<https://opencontent.org/definition/>> [accessed 18 June 2018]
- 2011. 'Openwashing – the New Greenwashing', *Open Content* <<http://opencontent.org/blog/archives/1934>> [accessed 19 June 2018]
- Wiliwaw. 2012. 'Open Access Guerilla Cookbook' <<https://archive.org/details/open.access.guerilla.cookbook>> [accessed 18 June 2018]
- Willetts, David. 2010. *The Pinch* (London: Atlantic Books)
- 2013. 'Open Access Research' [speech], Berlin-Brandenburg Academy of Sciences and Humanities, Berlin, 20 November 2013 <<https://www.gov.uk/government/speeches/open-access-research>> [accessed 18 June 2018]
- 2014. 'Progress Review: Implementing Finch Report Recommendations', London: Department of Business, Innovation & Skills <<https://www.acu.ac.uk/research-information-network/bis-transparency-letter-to-janet-finch-one-year-on-response-january-2014>> [accessed 19 June 2018]
- Willinsky, John. 2005. 'The Unacknowledged Convergence of Open Source, Open Access, and Open Science', *First Monday*, 10(8) <<http://ojphi.org/ojs/index.php/fm/article/view/1265>> [accessed 18 June 2018]
- 2006. *The Access Principle* (Cambridge, MA: MIT Press)
- 2017a. 'Modelling A Cooperative Approach to Open Access Scholarly Publishing: A Demonstration in the Canadian Context', *Canadian Journal of*

Communication, 4(5) <<https://doi.org/10.22230/cjc.2017v4n5a3264>>

—— 2017b. ‘When the Law Advances Access to Learning: Locke and the Origins of Modern Copyright’, *KULA: knowledge creation, dissemination, and preservation studies*, 1(1) <<https://doi.org/10.5334/kula.8>>

—— 2018. *The Intellectual Properties of Learning: A Prehistory from Saint Jerome to John Locke* (Chicago: University of Chicago Press)

Willner, Johan, and David Parker. 2002. ‘The Relative Performance of Public and Private Enterprise Under Conditions of Active and Passive Ownership’, Centre on Regulation and Competition, Working Paper Series, Paper No. 22 (Manchester: University of Manchester) <<https://www.gov.uk/dfid-research-outputs/the-relative-performance-of-public-and-private-enterprise-under-conditions-of-active-and-passive-ownership>> [accessed 18 June 2018]

Wilsdon, James, Liz Allen, Eleonora Belfiore, Philip Campbell, Stephen Curry, Steven Hill, Richard Jones, Roger Kain, Simon Kerridge, Mike Thelwall, Jane Tinkler, Ian Viney, Paul Wouters, Jude Hill, and Ben Johnson. 2015. *The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management* (London: HEFCE) <<https://doi.org/10.13140/RG.2.1.4929.1363>>

Wilson-Higgins, Suzanne. 2017. *The Impact of Print-On-Demand on Academic Books* (Cambridge: Chandos)

Wily, Liz Alden. 2011. “‘The Law is to Blame’: The Vulnerable Status of Common Property Rights in Sub-Saharan Africa”, *Development and Change*, 42(3): 733–57 <<https://doi.org/10.1111/j.1467-7660.2011.01712.x>>

Winn, Joss. 2014. ‘Is an Open Access Journal Article a Commodity?’, *josswinn.org* [blog], 14 February 2014 <<http://josswinn.org/2014/02/14/is-an-open-access-journal-article-a-commodity/>> [accessed 18 June 2018]

—— 2015. ‘Open Education and the Emancipation of Academic Labour’, *Learning, Media and Technology*, 40(3): 385–404 <<https://doi.org/10.1080/17439884.2015.1015546>>

- . 2016. ‘HE White Paper, the HERB, and Co-operative Higher Education’, *josswinn.org* [blog], 22 June 2016 <<http://josswinn.org/2016/06/22/he-white-paper-the-herb-and-co-operative-higher-education/>> [accessed 18 June 2018]
- Wirtz, Bernd W., and Steven Birkmeyer. 2015. ‘Open Government: Origin, Development, and Conceptual Perspectives’, *International Journal of Public Administration*, 38(5): 381–96 <<https://doi.org/10.1080/01900692.2014.942735>>
- Wise, Graeme. 2016. ‘Higher Education Bills We’ve Known and Loved’, *WonkHE*, 18 May 2016 <<http://wonkhe.com/blogs/analysis-bills-known-and-loved/>> [accessed 18 June 2018]
- Wolfe, Audra J. 2013. *Competing with the Soviets: Science, Technology and the State in Cold War America* (Baltimore: Johns Hopkins University Press)
- Wolff, Jonathan. 2010. ‘Why is Middlesex University Philosophy Department Closing?’, *Guardian*, 17 May 2010 <<https://www.theguardian.com/education/2010/may/17/philosophy-closure-middlesex-university>> [accessed 19 June 2018]
- Wolff-Eisenberg, Christine, Alisa B. Rod, and Roger C. Schonfeld. 2016. *Ithaka S+R US Faculty Survey 2015* (New York: Ithaca) <<https://doi.org/10.18665/sr.277685>>
- . 2016a. *UK Survey of Academics 2015. Ithaka S+R | Jisc | RLUK* (New York: Ithaca) <<https://doi.org/10.18665/sr.282736>>
- Woodin, Tom. 2017. ‘Co-operation, Leadership and Learning: Fred Hall and the Co-operative College Before 1939’, in *Mass Intellectuality and Democratic Leadership In Higher Education*, ed. by Richard Hall and Joss Winn (London: Bloomsbury)
- Worstell, Tim. 2016. ‘At Some Point the Public Library Will Be Obsolete’, *Adam Smith Institute*, 18 August 2016 <<https://www.adamsmith.org/blog/at-some-point-the-public-library-will-be-obsolete>> [accessed 18 June 2018]
- Wright, Adam. 2018. ‘The Market is Dead: Long Live the Market’, *WonkHE*, 2 July 2018 <<https://wonkhe.com/blogs/the-market-is-dead-long-live-the-market/>> [accessed 5 July 2018]

- Wu, Tim. 2010. *The Master Switch: The Rise and Fall of Information Empires* (London: Atlantic)
- Wyness, Gill. 2010. *Policy Changes in UK Higher Education Funding, 1963–2009*. DoQSS Working Paper No. 10–15 (London: Institute of Education)
<<http://repec.ioe.ac.uk/REPEc/pdf/qsswp1015.pdf>> [accessed 19 June 2018]
- Yar, Majid. 2005. ‘The Global ‘Epidemic’ of Movie ‘Piracy’: Crime-Wave or Social Construction?’, *Media, Culture & Society*, 27(5): 677–96
<<https://doi.org/10.1177/0163443705055723>>
- Yelling, J. A. 1977. *Common Field and Enclosure in England 1450–1850* (London: Macmillan)
- Young, Iris Marion. 1990. *Justice and the Politics of Difference* (Princeton, NJ: Princeton University Press)
- Younging, Gregory. 2015. ‘Gnaritas Nullius (No One’s Knowledge): The Essence of Traditional Knowledge and Its Colonization through Western Legal Regimes’, in *Free Knowledge: Confronting the Commodification of Human Discovery*, ed. by Patricia W. Elliott and Daryl H. Hepting (Saskatchewan: University of Regina Press)
<<http://hdl.handle.net/10535/9754>> [accessed 18 June 2018]
- Yu, Priscilla C. 2008. ‘History of Modern Librarianship in East Asia’, *Library History*, 24(1): 64–77 <<https://doi.org/10.1179/174581608X295293>>
- Zamora, Daniel, and Michael C. Behrent (eds). 2016. *Foucault and Neoliberalism* (Cambridge: Polity Press)