

Imagining Tomorrow's University

Rethinking scholarship, education, and institutions for an open, networked era

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Abstract

This is a white paper submitted as part of the joint NIH/NSF-funded event, “Imagining Tomorrow’s University: Rethinking scholarship, education, and institutions for an open, networked era”, to be held March 8th and 9th in Rosemont, IL. This paper presents my personal, not institutional, views on why open research is important, how it is defined, and what can be done by institutions to effect change. It draws on my experiences working on a range of open access projects – political, institutionally, and disciplinarily – in the United Kingdom, in the humanities discipline of English Literature.

Introduction

Open research, broadly defined, reflects the fundamental underlying goal for universities: knowledge. Knowledge is non-rivalrous, as is research disseminated in open digital forms. For, as Thomas Jefferson put it, “[i]f nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea”.¹ At the same time, our communal knowledge quest is advanced through a reflexive *openness* to change and to self-modification; the scientific paradigm of self correction. And while we have institutions that by market necessity frame themselves through paradigms of competition, our knowledge is built on an *openness* to exchange and to working in cooperation with each other for a greater epistemic good.

Researchers from all disciplines at institutions of varying sizes conduct and publish research in order to build upon the sum total of human knowledge. However, existing structures of accreditation, hiring, tenure, and promotion can often work against the open practices that would benefit the missions of universities and more broadly demonstrate their value to the world.

Defining Open Research

Open access to research outputs is well defined in the original BBB declarations as the removal of price and permission barriers.² In other words, for published research work to be “open” it must be free to read online and free to re-use, usually with attribution permitted. However, traditional research outputs are only a

fragment of the materials and processes to which the term open can be applied. Open data (an extremely broad umbrella term), open notebooks, open educational resources, open preprints, open software, open protocols, and others all harness the dissemination power of the internet to disseminate widely research and para-objects that are both published and in process. In this way, open research also concerns the practices of academia opening themselves to inspection and collaboration in new ways.

The potential breadth of the definition of open research, however, comes with some challenges. As I will go on to explore, there are different economic paradigms underlying open access, open data, and open educational resources, for just a limited set of examples. There are also strong disciplinary views and traditions that also sometimes conflict with ideas of open research; a large social difficulty.

The Importance of Open Research

For Universities and General Publics

Various indicators suggest that in the Global North approximately 50% of populations attend higher education.³ The benefits of university educations are often sold under the rubric of “critical thinking” and an enlightenment liberal humanist history of democratic citizens participating critically in society. Yet, current provisions that lock research away behind paywalls mean that the vast majority of university outputs are inaccessible to anyone outside of the ivory tower, often including alumni. Institutions instead become factories for deferring employment and incurring debt, sites that are viewed as discrete, rather than woven into the tapestry of modern citizenship.

The range of publics who might benefit from open research range from the interested “graduate on the street” up to surgeons in hospitals who do not always have access to medical information on which any of us might one day depend.⁴

For Researchers and Students

No institution in the world can subscribe to all the journals that could theoretically be required for its student and researcher demographics, since the cost is estimated to have risen by 300% above inflation since 1986.⁵ This is partly a result of the mass expansion of higher education resulting in more published research but also due to the monopolization of the scholarly communications space by a small number of large corporate players whose profit margins of up to 36% drastically exceed those of pharmaceutical and oil companies.⁶ The current configuration of scholarly publishing economics transforms this financial/economic challenge into an access gap with pernicious consequences for the pursuit of knowledge at universities of all sizes. A financial reconfiguration of the scholarly publishing landscape might not necessarily be cheaper for universities but it could avoid penalising students and researchers. The current limitations on re-use rights also mean that universities make additional payments for photocopying for teaching purposes.

Replication and Rigour

In many disciplines, an ongoing crisis of replication is taking place due, in part, to the non-publication of data. In other disciplines, comprehensive engagement with the scholarship of others – such as a line-by-line critique – is currently prohibited by copyright law. Strict copyright provision also forbids the re-use of images for the purposes of analysis and correction in other papers. Open research presents some solutions to these issues of replication and rigour.

My Work in Open Access and Open Research

In some ways, I am unusual (although becoming less so): a humanities researcher who practices and preaches open access. I have written four monographs and two of these (with Cambridge University Press and Open Book Publishers) are open access. All but one of my peer-reviewed journal articles (and the majority of my edited-collection book chapters) are open access. I am also the author of *Open Access and the Humanities: Contexts, Controversies and the Future* (Cambridge UP, 2014, open access), the only book concerned solely with open access in the humanities disciplines and its implementation and histories.

I have also been involved in the implementation of open access in the political context of the United Kingdom. For instance, I gave evidence to the UK House of Commons Select Committee BIS Inquiry into Open Access, I have written for the British Academy Policy Series on the topic, I was/am a steering-group member of the OAPEN-UK project, the Jisc National Monograph Strategy Group, the SCONUL Strategy Group on Academic Content and Communications, the Open Knowledge Foundation's Open Access Steering Group, the Jisc Scholarly Communications Advisory Group, the Collaborative Knowledge Foundation advisory board, the California Digital Library/University of California Press's Humanities Book Infrastructure advisory board, the HEFCE Open Access Monographs Expert Reference Panel (2014), the Budapest Open Access Initiative's Working Group, and the Universities UK OA Monographs Working Group (2016-).

In addition, I am a founder and co-CEO of the Open Library of Humanities, a charitable/not-for-profit open-access publishing company. The platform was initially funded to the tune of ~\$830,000 over two grants by the Andrew W. Mellon Foundation but is supported on an ongoing basis by an international consortium of over 220 (and growing) academic libraries including Harvard, Cambridge, Princeton, Duke, Carnegie Mellon, and the University of California system. The platform funds or publishes 18 journals all of which are fully open access and none of which have author fees as our labour and technological costs are covered by the library "subscriptions". The platform's economic model is designed to counter the challenge of Article Processing Charges (see below) and offsetting (we flip journals from a subscription model to an open model, working with other not-for-profits, such as university presses, where possible).

These service activities and spin-off charitable operations contributed, in no small part, to my position as the youngest full professor of English Literature in the United Kingdom.

Challenges for Open Research

There are a range of social, technical, and economic challenges (to the extent that these spheres can be separated) in the implementation of open research.

Economic Challenges

Article Processing Charges – the dominant emerging business model for open-access publishing – is difficult in the humanities disciplines and in many geographical regions. The reason for this is that while subscriptions distribute costs between many institutions, APCs concentrate the entire cost at a single point. For those with less recourse to external funding, this poses a serious challenge. The models of the Open Library of Humanities, Knowledge Unlatched, arXiv, and to an extent SCOAP3 avoid these problems by pooling resources in a non-classical economic setup.

The other challenge is that the humanities disciplines have a range of output types that are more difficult to make open access, often for economic reasons. Monographs are at the forefront of this. Indeed, by my projections of UK monograph output, taking the Book Processing Charge rate of Palgrave Macmillan would result in almost the entire library budget expenditure of the UK being eaten up in academic publishing (see Fig 1).⁷

What is really needed here is the freedom and security to *experiment* with new economic models to support open research.

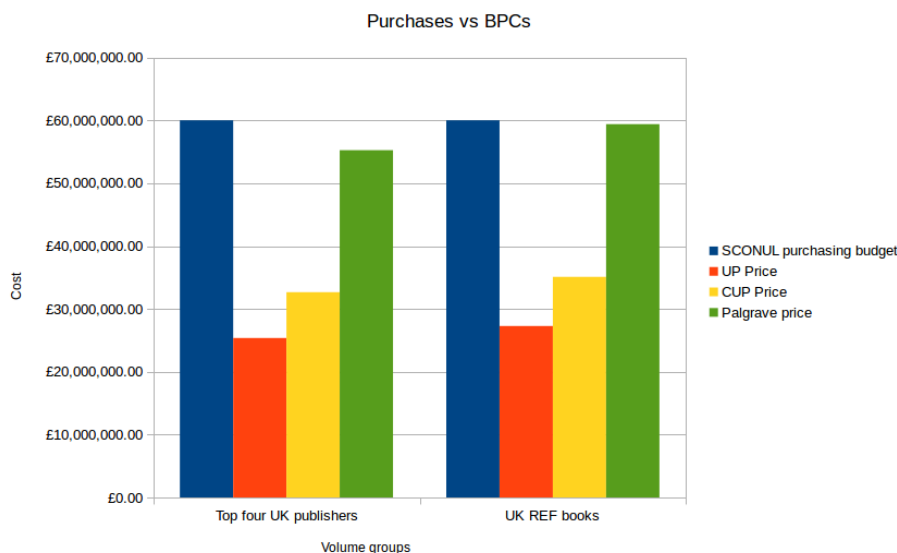


Figure 1: Rough modelling of processing charges for monographs

Social Challenges

Researcher behaviour is conditioned by a range of interlocking assessment phenomena that all circle around a shortage of labour time in the evaluation of research material. The belief, for instance, that hiring, tenure, and promotion panels will evaluate work based on *where it was published* rather than *what is in the work* is one such instance. Researchers then feel pressured to publish in venues that do not have open research as their priority. This, in turn, gives a great deal of market strength to publishers who can capture such outputs and feeds the economic problems above. When journal or press brand is favoured as a tool of evaluation of quality, there are social and economic consequences for open research.

The book/monograph space has additional social challenges of: trade crossover books, creative-critical crossover writing, and the need to maintain print for long-form reading. Changing behaviour in this area is also harder since academics tend to work on such outputs for many year and often wish to gain maximum reputational advantage. When open research is not made part of the evaluation criteria of academic reputation, academics will not act to achieve it.

Infrastructural/Technological Challenges

Universities do not own enough of their own infrastructure and technological instruments of dissemination. Instead, these are consistently outsourced to publishers and data analytics providers, making institutions reliant upon them for change. Universities adopting and encouraging preprint servers for the work of their own academics, for instance, could be a good first technological step towards a more open research culture.

Implementing Institutional Change from Leadership

There are a range of measures that leadership at universities can and should take to encourage open research practices:

1. Implement hiring, promotion, and tenure regulations that **prohibit the use of journal-level or press-level metrics**, whether formalised as per the Impact Factor or informal such as a “shorthand for quality”. Other quantitative measures should also be viewed with caution. Altmetrics, for instance, measure attention, not merit. A narrative approach to building a description of quality should be allowed.
2. Specifically implement hiring, promotion, and tenure **regulations that promote open research practice**. For instance, requiring any outputs for a tenure case to be listed in an institutional repository with a deposited copy of the work in question.
3. Devise a **decade-long plan to move from subscription inputs to pure open-access output**. Give initial cash injections to libraries during this transition period. Announce the transition faculty-wide at the start of the programme. Commensurately reduce the subscription budget year on year to divert to open access funding.
4. Support **experimentation in publishing business models** and give library and purchasing staff the freedom to invest in promising areas.
5. **Mandate strong local green open-access policies.**
6. **Do not support hybrid open-access journals** without rigorous and demonstrable financial offsetting arrangements in place.
7. **Support university presses**, which should move to open access, **as dissemination vehicles**, not as cash cows.

The Big Idea

As per the briefing document, I will close here by answering the question: “What \$10M or more, risky and potentially transformative, big idea research proposal would you be writing if you had the right open science resources, and institutional support?”

The answer for me is simple: I would expand the Open Library of Humanities into the Open Library of Sciences, hire more staff so that we can grow the library funding consortium at a faster rate, and move into other disciplinary spaces. Indeed, hardly a week goes by where I am not asked about this. With budget levels at the \$30m mark we could convert 115 journals over three years to a pure open-access model. At \$100m we could convert 295 journals over a five-years period. Full figures and outline modelling data for this are available on request from serious parties.

These figures sound, at first, as though they are large asks. However, Reed Elsevier, the largest scholarly publisher in the world, makes a *profit* of approximately \$939m USD (converted from 2015 shareholder report at an exchange rate of 1.24 from GBP). Yet Elsevier has done very little with these profit margins to phase subscription publishing out of its portfolio.

- 1 Thomas Jefferson, *The Writings of Thomas Jefferson*, ed. by H.A. Washington (Washington DC: The United States Congress, 1853), VI, p. 180.
- 2 Leslie Chan and others, 'Budapest Open Access Initiative', 2002 <<http://www.soros.org/openaccess/read.shtml>> [accessed 18 February 2011]; 'Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities', 2003 <<http://oa.mpg.de/lang/en-uk/berlin-prozess/berliner-erklarung>>; Peter Suber and others, 'Bethesda Statement on Open Access Publishing', 2003 <<http://dash.harvard.edu/handle/1/4725199>> [accessed 4 May 2014].
- 3 OECD, *Education at a Glance 2011: OECD Indicators*, 2011 <<http://www.oecd.org>>.
- 4 For more on the range of general publics who benefit from open research, see 'Who Needs Access? You Need Access!', *Who Needs Access? You Need Access!* <<https://whoneedsaccess.org/>> [accessed 21 April 2016].
- 5 Association of Research Libraries, 'ARL Statistics 2009-2011', 2014 <<http://www.arl.org/storage/documents/expenditure-trends.pdf>> [accessed 1 July 2014].
- 6 Alicia Wise, 'Evidence to House of Commons Select Committee Inquiry', in *Inquiry into Open Access. Fifth Report of Session 2013-2014.*, by House of Commons Business, Innovation and Skills Committee (London: House of Commons, 2013), pp. Ev1-Ev11.
- 7 For more on this, see the thorough and thoughtful Geoffrey Crossick, 'Monographs and Open Access: A Report for the Higher Education Funding Council for England', *Higher Education Funding Council for England*, 2015 <<http://www.hefce.ac.uk/pubs/rereports/year/2015/monographs/>> [accessed 24 May 2015].