



## BIROn - Birkbeck Institutional Research Online

Magruder, M.T. and Pilcher, Jeremy (2016) Aesthetic archives. *Art Libraries Journal* 41 (1), pp. 11-23. ISSN 0307-4722.

Downloaded from: <https://eprints.bbk.ac.uk/id/eprint/26950/>

*Usage Guidelines:*

Please refer to usage guidelines at <https://eprints.bbk.ac.uk/policies.html> or alternatively contact [lib-eprints@bbk.ac.uk](mailto:lib-eprints@bbk.ac.uk).

# Aesthetic Archives

*Michael Takeo Magruder and Jeremy Pilcher*

## Abstract

Michael Takeo Magruder, visual artist and researcher, discusses his digital and new media art and practice with Jeremy Pilcher, lawyer and academic, whose research engages with the intersection of art and law. Takeo's work asks viewers to question their relationship both to and within the real-time data flows generated by emerging technologies and the implications these have for archives. His art concerns the way institutions use such systems to create narratives that structure societies. This conversation discusses how Takeo's practice invites us, as individuals, to critically reflect on the implications of the stories that are both told to and about us by using gathered and distributed data.

END OF ABSTRACT

Michael Takeo Magruder is an internationally recognized visual artist and researcher who is well known for his work with digital and new media. A significant aspect of his practice engages with the implications archives have for our knowledge and experience of the world. Recording accumulated information has always facilitated governance and control, and archives maintain a crucial role in the regulation of society.<sup>1</sup> Takeo's art invites reflection not only on the contingencies but also the constraints of the archives that frame and structure our present lives. The digital and network technologies he uses to create his work have problematized conceptions of the archive as simply a container or store of information.<sup>2</sup> Takeo's artwork raises issues as to how the selection, classification and access to information are to be decided in the context of digital flows of real-time data made possible by current technological systems. The answers to these questions in the construction of archives will have – as they always have had – significant impact on the formation of societies and collective identities.

In opening up these areas for discussion, Takeo's practice invites critical reflection on the observation that 'traditional cultures provided people with well-defined narratives (myths, religion) and little "stand alone" information; today we have too much information and too few narratives that tie it all together'.<sup>3</sup> The works draw our attention towards the way databases, emerging forms of cloud storage, and perhaps more provocatively, artistic creations harness data flows that are typically used by institutions to construct narratives within which individuals are positioned. Yet, it is difficult to remain simply as an onlooker when experiencing Takeo's work. It invites those who encounter it to consider what other stories might be told using the vast amount of data that is now gathered, stored, displayed, conserved and reproduced at unparalleled speeds and rhythms.<sup>4</sup>

## Real-time Data Flows

**JP:** You recently had an exhibition, entitled *Living Data*, that toured the United Kingdom.<sup>5</sup> One academic reviewer commented how unusual – and it might be added, difficult – it is to successfully install born-digital work in a traditional, physical gallery space.<sup>6</sup> Yet, both in terms of each individual artwork and the show as a whole, it was a beautiful experience that also very much engaged with the flows of data which are now so ubiquitous in our society.

[ Fig 1 & 2 - photos of Living Data exhibition ]

**MTM:** The core concept for *Living Data* was to get people to think about the idea of data and interactivity – in this day, in this age – and how it feeds into their everyday lives. For me, the importance of art is not just about making beautiful things or generating beautiful ideas; it's about surfacing contexts for people to consider and discuss.

Questions concerning data – from how we interact with it and consume it; to how we generate it and (attempt to) own it – are some of the critical issues of our time. The term Big Data is commonly thrown about, but how many people really understand it; really think about it and its implications for nearly every aspect of contemporary culture. With that in mind, I wanted to create an exhibition that would provoke viewers to reflect on and better understand what interactivity is in this age of Big Data.

As with the majority of my shows, *Living Data* is created from a set of individual artworks relating to the central theme that have been aesthetically transformed into a unified experience. For this reason, the exhibition could be viewed as a single context-specific installation that is constructed from an appropriate set of reconfigurable building blocks. In light of this, perhaps it would be useful to discuss a few of *Living Data's* component works.

[ Fig 3 - image of Data\_Plex (economy) artwork ]

The first piece, *Data\_Plex (economy)*, is a real-time virtual cityscape that is generated from and evolves with the global financial markets.<sup>7</sup> The work is exclusively created from a live market feed of the Dow Jones Industrial Average (DJI), the most-cited international stock market index that is compiled from the share prices of thirty of the largest and most widely-owned public companies in the USA. The artwork translates this stream of fluctuating information into a metaphorical 3D city in which each DJI company is represented in the virtual environment by a series of buildings that are proportioned according to factors such as stock price, market capitalization and percentage of the overall index. Referencing the visual language of financial models, current positions shift alongside ghosted structures depicting the previous four days of trading (in grayscale) while manifestations of historical highs (in blue), lows (in red) and volumes (in green) complete the visualization of the city's (and the market's) past and present.

Every purchase that everyone makes feeds into the global capitalist system. Although the effect of any single personal transaction is infinitesimally small, it still influences the market, and therefore, the artwork. As people watch the living city evolve, they are not merely passive spectators, but are in fact, active participants.

[ Fig 4 - image of Data Storm (prototype I) artwork ]

The second example, *Data Storm (prototype I)*, is a generative virtual storm algorithmically created in real time from Earth's weather patterns.<sup>8</sup> The composition's 3D geometry is constructed by a series of artificial life algorithms that endlessly produce unique spiral forms. In contrast, each storm's ephemeral texture is generated by tapping into the online image repository of the European Organization for the Exploitation of Meteorological Satellites and polling current satellite data of the Earth.

Returning to the subject of interactivity, questioning the ways we can (or do) affect the artwork is critically important. Our day-to-day activities – both physical and virtual – require the expenditure of vast quantities of energy in collective terms. This of course alters the planet and its weather systems, and thus the artwork's generative storms. Again, any

single act (such as driving your car or switching on your computer) elicits an imperceptibly small change, but it is still meaningful and the sum of all these small actions certainly does produce a significant response. In this relationship, as with the previous example, consumption is the means of interaction.

**JP:** So, it seems to me that in these artworks you're inviting awareness of the way galleries are entangled within the world; how they are engaged with – and in – the everyday. Is it fair to say that you're seeking to generate the realization that when people leave the show they continue to interact with the work?

**MTM:** Absolutely. My desire was for people to understand that interactivity in the present digital landscape has evolved far beyond the old user-initiated point-and-click paradigm and now involves the passive (and often pervasive) collection of their data. As we move towards a culture of increasing datafication in which most aspects of our lives are transformed into computerized, networked and linked data, it is essential to fully consider and debate the consequences of this shift.

One does not have to deviate much (if at all) from the core concept of a show like *Living Data* to explicitly engage with important geo/socio/eco/political contexts and issues. For example, *Living Data* highlighted the always-on and interconnected nature of data flows; conditions that are of course highly significant when reflecting upon activities like digital tracking and surveillance.

#### [ Fig 5 - image of PRISM artwork ]

Last year I was commissioned by the UK-based theatre company Headlong to create an artwork in response to their production of George Orwell's *1984*.<sup>9</sup> The resulting installation, *PRISM*, considered the story of Edward Snowden and how he could be seen as the Winston Smith of this information age.<sup>10</sup> The piece was created using a variety of digital assets ranging from video interviews of Snowden and online articles about his disclosures to the complete collection of his leaked documents and the (subverted) logo of the US National Security Agency. Alongside these archival materials, I incorporated live data streams from Headlong's *1984 Digital Double* project – a mobile application that invited participants to see how their personal data could be automatically collected from the social networks and media repositories that were being targeted by government surveillance programs like PRISM.<sup>11</sup>

The response to the artwork was that it was both mesmerizing and disturbing. In relation to the latter, it certainly should be since data collection is now an unavoidable part of everyday life. Whether we are considering active processes of digital engagement (like posting to social networks or browsing the Internet) or passive collection in the real-world (such as being recorded on CCTV or being identified by RFID), people need to be thinking about their data flows and how they are interfacing with these systems.

**JP:** In *The New Inquiry* Nathan Jurgenson has noted how, amongst other things, Big Data has 'sparked the rise of "data journalism" like that of *FiveThirtyEight*, *Vox* and the other multiplying explainer sites'.<sup>12</sup> He goes on to observe that '[t]he rationalist fantasy that enough data can be collected with the "right" methodology to provide an objective and disinterested picture of reality is an old and familiar one: positivism.'<sup>13</sup> Big Data has become associated with objective truth. The tendency is to overlook how an interface influences or even generates narrative in its own right and therefore affects what conclusions are drawn from the data in question.

Your art engages with the extent to which interfaces are controlled and produce narrative. I'd like to explore this in terms of your work *<event>*.<sup>14</sup>

#### [ Fig 6 - image of *<event>* artwork ]

**MTM:** *<event>* is an early web-based artwork that was commissioned in 2004 by one of the leading international portals for Internet Art, Turbulence.org.<sup>15</sup> The piece reflects upon how we as individuals relate to and consume (news) media in this era of data saturation and information overload. The work was exclusively created from 31 everyday headline news articles that were captured from the BBC Internet News Service at a rate of one per day for an entire month.<sup>16</sup> Each news story is represented in the composition by an algorithmic media collage that was procedurally generated from image, text and video samples which had been extracted from the original online article. These audiovisual elements were then embedded into an interactive interface that maintained their chronological order and allowed viewers a means to re-watch the recorded events.

Although the stories contained within the artwork had currency at their time of publication, and of course retain their narrative content, they now hold little (if any) informational value as news to readers given that over ten years have passed. The same information continues to be transmitted to viewers, but the data is now broadcast through an artistic interface, and has therefore shifted from an informational to an aesthetic experience. The means of delivery has undoubtedly altered the way in which the data is perceived. Instead of focusing on the retelling of specific individual events, the narrative transitions to a more universal context in which the underlying qualities and structures of the media itself are dissected, explored and critiqued.

## Aesthetic Journalism

**JP:** The extent to which your work engages with narrative may be contrasted with – perhaps it may even be thought of as providing a corrective to – data journalism, which has grown out of the impact of numerical data in the production and distribution of information. The curator Alfredo Cramerotti has referenced your work in his book, *Aesthetic Journalism*, which refers to the artistic practices involved in investigating social, cultural and/or political circumstances.<sup>17</sup> This clearly resonates with the way your work intertwines conceptual and aesthetic engagements with issues relating to the access, distribution and preservation of data.

To what extent do you see your work as political in the way it challenges institutions such as government and the media?

**MTM:** Of course I have my own set of political beliefs that undoubtedly filter into my artistic practice at some base level. However, with my projects that are aligned to this notion of aesthetic journalism I certainly strive to keep my personal opinions and politics at a distance much like ethically-minded journalists endeavour to maintain a fair and impartial stance within their reporting. The intention is to raise awareness and discussion – not shift or shape public and/or political opinion.

Institutions like government and the media often have agendas that are predicated on securing and expanding their own influence and power within society. As such, the narratives that they put forth into the public domain are often framed in ways that seek to further these self-serving goals. As an artist, I have no desire to 'win votes' or 'achieve ratings'. My interest is simply to get people to consider (or reconsider) various issues and contexts in more nuanced and open-minded ways. So in that sense, my art does challenge these institutions as it seeks to offer a space for personal reflection that unpacks and critiques the dogmatic truths which they would so often have us believe and accept without question.

**JP:** It seems to me that you're focusing attention on the way narratives are constructed by institutions. What impact do you hope to have on the relationship between institutions and individuals?

**MTM:** My concern is with the individual. I want people who experience my work to respond on a personal level – how the questions and situations that I'm highlighting affect them and their own lives. From that starting point, my hope is that they then begin to think about the wider social implications and contexts. Such issues often necessitate finding an appropriate balance between individual and collective rights and responsibilities, and this requires informed dialogue and debate.

For example, in examining the controversies about surveillance and privacy that are central to the *PRISM* artwork, I am not attempting to portray the institutional actions of the involved Western governments and media organizations as illegal or immoral. I am merely presenting the current situation within a techno-historical context and juxtaposing this to the fictional setting of Orwell's *1984*. The intention is not to imply that this is the point we are at or will soon reach, but rather, to surface an interesting parallel that merits consideration and discussion. Just as no reasonable person would desire to live in the dystopia of *1984*, no reasonable person would say that governments should cease all their surveillance activities. The question is not one of 'yes' or 'no', but more along the lines of what is justifiable and acceptable. It is about seeing an issue as an equation of interrelated halves (e.g. surveillance and privacy, security and freedom, transparency and anonymity) and coming to a democratic consensus about what is the right balance for this present time in the knowledge that things can (and often do) change which will require the accepted status quo to be revisited. My desire is simply to provide useful provocations that inform and help the public hold our institutions to account.

## Remembrance and Recollection

**JP:** Terrorism has been very prominent both politically and in the media since 9/11. Of course, the implications of 9/11 in terms of what surveillance and other security measures are regarded as reasonable and appropriate continue to unfold. The processes and issues we've been discussing come together in your artwork *(in)Remembrance [11-M]*,<sup>18</sup> a project focusing on the 2004 Madrid train bombings that you were commissioned to produce for *Manifesta 8* in 2010.<sup>19</sup> My response to this piece is that it is a commemoration for a digital age that avoids a technological utopianism which is overly idealistic.

In the gallery exhibition there were a number of works that I think of as different nodes – or clusters of information – about the bombings. These were undoubtedly manifestations of your underlying creative research process, but how explicit were you about this work being constructed from a defined archive of material?

[ Fig 7 & 8 - photos of (in)Remembrance [11-M] exhibition ]

**MTM:** *(in)Remembrance [11-M]* was indeed based on a personal research archive that I had compiled over the course of the year leading up to the biennial. The historical materials that I gathered about the bombings and the aftermath – from photographs and videos to documents and stories – were all retrieved from surface and deep web searches. I explored locations ranging from government and news media websites to social networks and personal (sometimes hidden) repositories. By the conclusion of my research phase I had collected a few thousand media assets that provided the basis for the eight artworks which I created for the exhibition.

Although I did not explicitly state that all of the individual pieces in the show were derived from this archive, it was certainly clear that the works were assembled from found media fragments which had been extracted from the digital public domain. When using various assets from the archive, I sought to prominently incorporate their online links (i.e. working URLs) into my aesthetic designs. This provided a means of transparency through which the provenance of the sources could be scrutinized and critiqued by viewers. Furthermore, it was my intention to convey that both the artworks and the source materials from which they were created formed part of something much bigger (and much more meaningful) than just a contemporary visual art exhibition. I wanted people to get a sense that if you took away the source materials (i.e. the archive) the artworks would not (and could not) exist, and nothing would remain in the gallery.

**JP:** The work seems to invite reflection on the means through which institutions gather and use facts about events. The way events are mediatized affect processes of aggregation, storage, access and preservation and therefore have implications for archiving. Each node drew attention to how an event may be mediated in different ways. In a sense it's an exemplification of McLuhan's expression 'the medium is the message'.<sup>20</sup>

**MTM:** The aesthetic journalism thread of my practice does indeed draw from McLuhan's theories. However, my primary interests are more specifically aligned to the question of how the mediation (and remediation) of archival content can be employed to create experiences that open up different, more personal ways for individuals to consider historical events and contexts.

Even though the final outcome of the *(in)Remembrance [11-M]* project was the production of an exhibition consisting of pieces that could be described using the language of traditional art forms (such as installation, photography, print and video), the purpose of the work was not to portray a particular retelling of the history of 11-M. The objective was to construct an alternative, contemplative view of the events in question, and thereby offer a space for individual reflection that was removed from the institutional biases proffered by governments and the media.

Visitors were encouraged to peruse and physically handle the works, and even to take elements of the pieces away with them. These included a free broadsheet style publication and large selection of 6x4" digital photographic prints that were displayed atop a plinth that was refilled each day. Going back to the extensive use of source URLs in my designs, especially within these takeaway elements, the artworks could be used as starting points for people to undertake their own explorations outside of the gallery environment. Although the exhibition could certainly be seen as a summation of my personal journey through the historical archive that I had compiled, it could also be viewed (perhaps more appropriately) as an experience that sought to help others find their own sense of the truth regarding both the history and the ongoing issues surrounding the 11-M attacks.

**JP:** We started speaking about *(in)Remembrance [11-M]* and before that *PRISM* in the context of aesthetic journalism. It would be reductive to understand all of your work in such terms but the content of your art is unmistakably and inextricably bound up with its aesthetic, which we haven't yet touched on.

[ Fig 9 - image of Re\_collection artwork ]

**MTM:** Aesthetics are a very important element of my work. Although I mentioned earlier that I'm not simply interested in making beautiful things, I certainly strive to instil an aesthetic beauty into every piece that I produce. Within my practice, I always seek to interweave the conceptual, technical and aesthetic threads of my creations, and I consider that my most successful artworks are those in which the divisions between these three areas are blurred and permeable.

Returning to the idea of surfacing narrative, I often use aesthetics as a mechanism to frame or shift perspective in ways that hopefully allow viewers to see (and therefore experience) differently. A good example of this approach can be found in my early mobile phone artwork *Re\_collection* – a piece from 2005 that focuses on the nature and context of human-machine memory in this age of ubiquitous mobile devices.<sup>21</sup> The source material for the work is a single 14-second video clip of my daughter in Hyde Park, London that I recorded on my smartphone without any planning or direction. The linear video sequence has been algorithmically downsampled (in terms of pixel resolution and frame rate) and stitched into a seamless loop in which subtle programmatic deviations in colour draw attention to the artwork's real-time and ephemeral qualities.

The transformation from a very high to an extremely low definition state is of course accompanied by a severe loss of data. Although such a degradation process runs against current technical trends and the notion that more information equates to a clearer picture, I believe that the technique can sometimes engender a better understanding of a recorded event. In the example of *Re\_collection*, the lowering of resolution obscures many situation-specific and individual aspects of the footage. The location cannot be identified as Hyde Park – it becomes simply a natural outdoor setting – and the figure cannot be identified as my daughter – she becomes a child running towards an unseen loved one. The removal of the personal leaves room for the universal. The narrative is no longer my story. It has become a dreamlike vision into which anyone can transpose their own memories and emotions. The artwork creates a liminal space in which the universal becomes re-personalized, and through this process viewers are presented with a means to reflect upon their own truths and experiences.

**JP:** So could I say that through the aesthetic of your work you're encouraging people to reflect on how mediation can transform specific individuals into generic figures, such as archetypal victims, heroes or terrorists? For example, you seem to employ pixilation techniques to similar effect in *(in)Remembrance [11-M]*, and combine them with a very strong reduction in the colour schema of the source materials.

**MTM:** In projects like *(in)Remembrance [11-M]* I do want viewers to see past the specific individuals who were involved and try to place themselves within the overarching historical narratives. Every victim (or hero, or terrorist) is someone else's parent or child; partner or friend; colleague or acquaintance. I believe this position is how we should strive to approach these difficult collective tragedies. If one can adopt a more personally invested mentality then perhaps there is a greater impetus to gain a deeper level of awareness and understanding about the wider social issues and contexts.

To achieve this, one needs to create aesthetic experiences that pull individuals away from their everyday conditions and mindsets. The reduction of spatial and temporal resolution that I previously described is one such avenue. Another is the reduction (or removal) of colour.

In our media saturated society, colour is the norm, especially in relation to news reporting and broadcasts. High-fidelity, realistic colour is often perceived as a characteristic that is indicative of factual (and therefore truthful) coverage of an event. If the intention is get people to examine and question the media's portrayal of a story, it is logical that one must adopt a visual language that sits in distinct opposition to the standard news media aesthetic. Colour is also a type of information, and as with resolution, its degradation or removal promotes a different quality of engagement. Viewers are again confronted by something that is unexpected and has the potential to shift their perspective (and consequently their position) by a few degrees.

**JP:** I am reminded of Derek Attridge's approach to art in *The Singularity of Literature*. Attridge does not see art in terms of a binary opposition between its form and content but in terms of the way it stages 'events of meaning'.<sup>22</sup> Such a staging does not instrumentally communicate meaning, but rather, gives rise to performative engagements that generate events out of which 'new possibilities of meaning and feeling' may arise.<sup>23</sup> In terms of this approach, I would say that for me your works are concerned with 'what the telling (or denying) of the truth is'.<sup>24</sup>

The content and the aesthetic of artworks like *(in)Remembrance [11-M]* cannot be split apart. These aspects come together to achieve a staging of the processes that affect archiving. Your work opens up for discussion how different social systems give rise to questions about, and are made possible by responses to, issues such as what is kept, how it may be stored, who may access it and how such material may be used.

## Legacy

**JP:** Perhaps I can turn this reflexivity back on your own work as we bring this discussion to a close. What are your thoughts about the preservation of your artworks and the implications you see in that for your practice?

**MTM:** Each artwork that I produce is typically constructed from a unique combination of media and processes, which often involve techniques related to making and remixing. Furthermore, my practice commonly draws from both the analogue and the digital domains. Traditional art materials are as important as their newer technological counterparts, and I seek to bring these aspects together in ways that reference and extend historical categorizations of art while exploring and critiquing what is relevant within contemporary art practice.

From a physical standpoint, my projects are usually site/context-specific, and as such do not have a predefined installation format. Each work adopts a new manifestation when it is exhibited. Regarding the virtual elements of my creations, some are static (like code) while others are ephemeral (like real-time data), but all are continuously refined, updated and redesigned as new technologies and methodologies become available. In a literal sense, these components remain in a cycle of beta revision.

My artworks therefore exist in a highly reconfigurable and unfinished state that of course creates a complicated (and often problematic) set of conditions for archiving and preservation. To prioritize certain aspects of a project for

conservation acknowledges the fact that it is simply not practical (or perhaps even possible) to retain every facet of the work. Any process of selection is also a process of exclusion. Within this context, careful attention must be given to ensure that the core essence of the artwork is retained.<sup>25</sup> Any preservation strategy must take into account not only the present response to the questions and realizations generated by my creation of the work, but also how the work might be seen and contextualized in the future. Such interpretive situations will unquestionably affect the legacy of my practice, but as many aspects of these scenarios are out of my control, I try to focus on producing artwork rather than worrying about whether or not my artwork will be perfectly preserved.

**JP:** Where to next? What kind of issues are you engaging with at present?

**MTM:** Most (if not all) of my current projects and research interests remain closely connected to the issues surrounding data flows and digital archives that we have been discussing in this conversation. One slight shift in my practice is that I now find myself increasingly drawn to areas that explicitly involve historical subjects.

Returning to your opening remarks about how archives have always affected societies and collective identities, I often wonder what narratives we might now be able to draw forth from recently digitized collections of old information – the Big Data of previous generations – and how such knowledge might be artistically reconfigured into experiences that can inform us today. History, like Art, is a dialogue between past and present, and the emerging technologies of this time undoubtedly surface new possibilities within the relationship. It is not about replacing the old with the new, but rather, using the new to rethink and re-contextualize the old in ways that help us to better understand history, and perhaps ourselves.

## References

1. Mike Featherstone, "Archive" *Theory Culture Society* 23 (2006): 591-596.
2. Claire Waterton, "Experimenting with the Archive: STS-ers as analysts and co-constructors of databases and other archival forms" *Science Technology & Human Values* 35: 5 (2010): 645-676.
3. Lev Manovich, *The Language of New Media* (Cambridge, Mass.: MIT Press, 2001), 217.
4. Jacques Derrida and Bernard Stiegler, *Echographies of Television* (Cambridge, Polity Press, 2002).
5. Michael Takeo Magruder, *Living Data*, [www.takeo.org/nospace/2014-living-data](http://www.takeo.org/nospace/2014-living-data), accessed August 8, 2015.
6. Anita Chowdry, Living Data: Digital Art at Watermans Art Centre, *Anita Chowdry: Journeys with Pattern and Colour*, February 3, 2015, [anitachowdry.wordpress.com/2015/02/03/living-data-digital-art-at-watermans-arts-centre](http://anitachowdry.wordpress.com/2015/02/03/living-data-digital-art-at-watermans-arts-centre), accessed August 8, 2015.
7. Takeo Magruder, *Data\_Plex (economy)*, [www.takeo.org/nospace/ns031](http://www.takeo.org/nospace/ns031), accessed August 8, 2015.
8. Takeo Magruder, *Data Storm (prototype I)*, [www.takeo.org/nospace/ns035](http://www.takeo.org/nospace/ns035), accessed August 8, 2015.
9. Headlong's website describes the company as 'dedicated to new ways of making theatre' and that it 'works with risk-taking artists of international standing, encouraging them to ask provocative questions', [headlong.co.uk](http://headlong.co.uk), accessed August 8, 2015.
10. Takeo Magruder, *PRISM*, [www.takeo.org/nospace/2014-prism](http://www.takeo.org/nospace/2014-prism), accessed August 8, 2015.
11. Headlong, *1984 Digital Double*, [www.digital-double.com](http://www.digital-double.com), accessed August 8, 2015.

12. Nathan Jurgenson, "View from Nowhere: on the cultural ideology of Big Data," *The New Inquiry*, [thenewinquiry.com/essays/view-from-nowhere](http://thenewinquiry.com/essays/view-from-nowhere), accessed August 8, 2015. The examples of data journalism mentioned by Jurgenson are *FiveThirtyEight*, [fivethirtyeight.com](http://fivethirtyeight.com) and *Vox*, [www.vox.com](http://www.vox.com).
13. Jurgenson, "View from Nowhere: on the cultural ideology of Big Data".
14. Takeo Magruder, <event> [www.takeo.org/nospace/ns009](http://www.takeo.org/nospace/ns009), accessed August 8, 2015.
15. Turbulence.org, [www.turbulence.org](http://www.turbulence.org), accessed August 8, 2015.
16. The data capture was from the BBC website, [www.bbc.co.uk/news](http://www.bbc.co.uk/news).
17. Alfredo Cramerotti, *Aesthetic Journalism* (Bristol and Chicago: Intellect, 2009).
18. Takeo Magruder, (in)Remembrance [11-M], [www.takeo.org/nospace/2010-\(in\)remembrance\\_11m](http://www.takeo.org/nospace/2010-(in)remembrance_11m), accessed August 8, 2015.
19. Manifesta, [www.manifesta.org](http://www.manifesta.org), accessed July 8, 2015. Manifesta is the roving European Biennial of Contemporary Art. The 8<sup>th</sup> edition was held in the region of Murcia, Spain, [www.manifesta8.com](http://www.manifesta8.com).
20. Marshall McLuhan. *Understanding Media: The Extensions of Man* (London and New York: MIT Press, 1964).
21. Takeo Magruder, *Re\_collection*, [www.takeo.org/nospace/ns016](http://www.takeo.org/nospace/ns016), accessed August 8, 2015.
22. Derek Attridge, *The Singularity of Literature* (London and New York: Routledge, 2004), 109.
23. Attridge, *The Singularity of Literature*, 58-9.
24. Attridge, *The Singularity of Literature*, 97.
25. Takeo has discussed in detail the concept of preserving the 'essence' of digital art in the context of his own practice in Michael Takeo Magruder, "Between Code and Space: The Challenges of Preserving Complex Digital Creativity in Contemporary Arts Practice," in *Preserving Complex Digital Objects*, eds. Janet Delve and David Anderson, (London: Facet, 2014).

Michael Takeo Magruder

US/UK

[www.takeo.org](http://www.takeo.org)

[m@takeo.org](mailto:m@takeo.org)

Jeremy Pilcher

London, UK

[jdkpilcher@gmail.com](mailto:jdkpilcher@gmail.com)

## Figure captions

Fig. 1. & Fig. 2. Michael Takeo Magruder, *Living Data* exhibition at Peterborough Museum & Art Gallery, UK, 2014. Photos © and courtesy of the artist.

Fig. 3. Michael Takeo Magruder, *Data\_Plex (economy)*, new media artwork using real-time data, 2009. Image © and courtesy of the artist.

Fig. 4. Michael Takeo Magruder, *Data Storm (prototype I)*, new media artwork using real-time data, 2014. Image © and courtesy of the artist.

Fig. 5. Michael Takeo Magruder, *PRISM*, public installation using archival and live data, King's Building, King's College London, UK, 2014. Photo © and courtesy of the artist.

Fig. 6. Michael Takeo Magruder, *<event>*, interactive Internet artwork, 2004. Image © and courtesy of the artist.

Fig. 7. & Fig. 8. Michael Takeo Magruder, *(in)Remembrance [11-M]* exhibition at the Museo Regional de Arts Moderno (MURAM) as part of *Manifesta 8: the European Biennial of Contemporary Art*, Cartagena, ES, 2010. Photos © Nikolaus Schletterer and courtesy of the artist.

Fig. 9. Michael Takeo Magruder, *Re\_collection*, algorithmic Internet/mobile device artwork, 2005. Image © and courtesy of the artist.