International Journal of Communication 10(2016), 5395–5408 1932–8036/20160005

IJoC Media Times

Archiving Protest Digitally: The Temporal Regime of Immediation

ANNE KAUN
Södertörn University, Sweden

Media technologies are crucial for the experience of time and temporality. Hence, changes in the technological configurations of the media ecology have far-reaching consequences for temporal experiences and practices. At the same time, social practices are shaping media technologies in diverse ways. One way the dialectical relationship between time and technology is expressed is the current preservation of the past for future generations. In that context the notion of the archive as practice and institution has long been central to discussions of social organization and cultural production. However, archival practices are changing with digitization. This article explores the changes in temporality of the archive through the lens of protest movements that are both objects of archiving and subjects of self-archiving practices. Combining experiences with different kinds of archives ranging from the institutional physical archive to digital archives including born-digital materials, I ask after the consequences of the changing temporalities and time regimes of the archive in terms of its politics and, ultimately, after the historicity of protest movements.

Keywords: protest movements, digital archives, archiving protest, temporality, protest time, time regimes

In the context of the protest wave beginning in 2011 (Gerbaudo, 2012), activists not only engaged in the organization and mobilization of direct action such as marches and occupations but also reflected about how the history of a specific movement should be told. This reinvigorated an old debate about official history writing and a history from below (Hobsbawn, 1998). The protest activities not only revived this long-lasting debate on how history is supposed to be written, but also brought attention to what kind of infrastructures are needed to preserve histories from below. In that context, digital media have been celebrated as new, resource saving possibilities that connect activists over time and space (Flinn, Stevens, & Shepherd, 2009). Similar to celebratory discourses about social media's potential for organizing and mobilizing (for critical reviews, see Mercea, 2013; Tufekci, 2014), commentators have emphasized the democratizing potential of the digital archives (Flinn et al., 2009). Accordingly, digital archives allow activists to preserve digital artifacts representing the development of movements with low

Anne Kaun: anne.kaun@sh.se
Date submitted: 2015–11–20

costs and without large physical storage rooms. In the case of born-digital materials, the archiving process is distributed among all activists and is exercised while protest events unfold. It is argued that instead of institutionalized actors performing archival practices by instituting a certain set of rules based on power relations between the archivist and the archived, digital archives allow open participation (Flinn et al., 2009). However, properties of the digital archive—particularly related to its temporality—have consequences for its politics and the possibilities for telling histories from below. Combining experiences with different kinds of archives ranging from the institutional physical archive to digital archives, including born-digital materials—materials that originate in a digital form—I ask after the consequences of the changing temporalities of archives in general and the time regime of the digital archive in particular. That way I aim to engage with questions of the historicity of protest movements and their political practices.

The (Digital) Archive

The notion of the archive has been discussed broadly in relation to modernity and postmodernity. Bradley (1999) distinguishes between the archive as a physical fact and as an institution that is mainly characterized as a bureaucratic, state-sponsored, dominant mechanism of the modern liberal state to handle the past. She also refers to the Spanish meaning of archive as "a person to whom is entrusted a secret or very private knowledge and [who] knows how to guard them" (Bradley, 1999, p. 111). In that sense, the notion of the archive is linked to power, secrecy, and regulation. Packer (2010) argues that the archive refers to a wide-ranging set of discursive and nondiscursive practices that include positioning, grammars of architecture, diagrams, and codifications organizing the collection. At the same time, the archive is "invoked as a mechanism to provide proof, for legitimating arguments, for verifying thoroughness of an investigation, in short, to credentialize, authorize, legitimize, and stylize the veracity and authenticity of a historical investigation" (Packer, 2010, p. 91). In contrast, Ernst (2011) argues that archives are not that much concerned with memory but with erasure and elimination. Other media archaeologist invoke Foucault's understanding of the archive that "what governs our contemporary life—its archive—is not only about the statements and rules found in books and libraries. Instead it is to be found in technological networks of machines and institutions, patterns of education and drilling: in scientific-engineering complex that practices such forms of power" (Parikka, 2015, p. 2).

Only artifacts that have been preserved can be read and used in the present, but stored documents and books are passive without an active reader that re-actualizes their function. With the searching eye, the user shapes the character of the archive by asking and not asking questions. With digital media, discussions about the changing nature of the archive reemerged. Jeremy Packer (2010) argues that

> the concept of the archive is loosening and exploding. Information technology and in particular digital media offer up apparently limitless opportunities for both the collection of new sorts of archived material and the opening of access to traditional archived sources. (p. 117)

Consequently, Wolfgang Ernst (2011) suggests that the long-term, stable archive that was also expressed in its physical architecture is today converted into an archive of procedural temporality based on permanent updating and real-time processing. The archive moves to regeneration of information in the mode of coproduction, and memory becomes permanently transitional. Digital media that have a different temporality might reconfigure the regimes of memory toward an economy of circulation, moving away from questions of preservation. Without negating the spatial dimension of digital archives, Ernst emphasizes the importance of changing materiality and guiding principles. He argues that digital archives are less about storage than about selection. Hence metadata and other forms of addressing and identifying information become supreme. The sorting and storing that were the major tasks of the classical modern archive are pushed into the background. Ernst goes as far as arguing that the archive as a notion becomes merely a metaphor that describes a function of a transfer process. Linked to that, digital archives extend the classical archival spaces, the library and the museum, while undermining the very distinction between the three:

> Digital archives are closer to computer's memory aesthetic than are traditional empathetic coupling of archive and cultural memory. The classical archive is preserved time. But the digital archive has no intrinsic macro-temporal index. . . . It operates on the micro-temporal level instead. (Ernst, 2011, p. 82)

Following Ernst, the archive is no longer an accumulation of records to be used but a mediated result of time-dependent experiences. The archive is not so much about the content, which is pushed increasingly into the background, but about the process of producing, gathering, and processing data. The digital archive is also always present and loses its monumental aura, and life is administrated more or less archivally, Ernst (2008) argues.

Considering the specific architecture of the computer that combines storage and process, Robert Gehl (2011) provides a perspective on the digital archive that helps to develop a more nuanced view: The computer "is a synthesis of the immediate (in the form of the CPU or processor) and the archival (in the form of memory and storage of data)" (p. 1229). This basic architecture—also called *von Neumann architecture*—captures the separation between processor and storage that encourages computer designers to separate between memory core for storage of data and programs on the one hand and the processor for executing the programs on the other. Data can, depending on the storage medium, be taken out of time and stored indefinitely. The twofold structure of the immediate and the archival was replicated on the Internet, Gehl argues. It drives and partly determines current business practices of the Web. However, for the lay user the visible and predominant focus is on processing rather than archiving. Particularly popular applications such as corporate social media build their business models on the dispossession of data and hence aim for the production and capturing of ever new data (Kaun & Stiernstedt, 2014). Although large-scale storage of information is necessary, the archiving aspect remains largely invisible (Mosco, 2014). I am, hence, only partly agreeing with Ernst in his analysis of the digital archive as being about process. The Internet offers both processing and archiving. However, storage and archival aspects remain largely hidden from the general user. Social media, such as Facebook, particularly combine elements of memory and processing. Consider, for example, the On This Day feature that Facebook has offered since March 2015 that proposes to repost earlier shares or tags and makes the archival side of Facebook visible.

However, the main and initial purpose is to produce new interactions and hence new data to be processed immediately. The Facebook feature is thus not so much about memory as about attracting new engagement and the processing of new data.

Time Regimes of Media Technologies

What Ernst, however, is pointing at is a different time regime that digital archives produce and follow: permanent updating and newness. This diagnosis relates to broader discussions of the consequences of technological change for society proposing notions such as the culture of immediacy (Tomlinson, 2007) and social acceleration (Rosa, 2013). The culture of immediacy and social acceleration are expressions of a time regime linked to technologies that are, for example, speeding up our everyday experiences. Whereas Tomlinson and Rosa consider technology to be part of a speeding-up process, Ernst (2011) is much more interested in machine time itself. Rather than asking how acceleration is experienced and expressed on a societal level, he asks how machine-based calculational principles are changing temporality. However, it is fruitful to connect the internal temporal logics of media technologies with broader social and political trends.

If the current situation is considered a culture of immediacy, previous critical junctures of innovation and banalization of "new" media technologies (Mosco, 2005) were connected similarly to time regimes. In the 1970s, Raymond Williams (1974) developed the idea of television flow based on the elimination of breaks between different programming elements. This consequently led to a perpetual flow of sequences blending into each other to capture the viewers' attention over the course of the whole evening. In the 1930s, Walter Benjamin (1936/2008) not only discussed the fading aura of an artwork in the age of reproduction but also considered the speeding up of its spread. Hence, mechanical speed was essential to understanding the changing role of art and images for political organization. Consequently, I argue that the notion of time regimes helps us to better understand different types of archives in terms of their temporality, including their politics of preserving the past.

Archiving Protest

The character of the digital archive is here analyzed through the lens of archiving and self-archiving practices of protest movements combining paper-based bureaucratic archives with community archiving and digital archives. The analysis builds on material collected for a larger project that considers U.S. protest movements of the dispossessed during three major economic crises: (a) the Great Depression after 1929 and the unemployed workers' movement, (b) the oil and fiscal crisis in the early 1970s and new urban movements, particularly the tenants' movement, and (c) the Great Recession of 2007–2008 and the Occupy Wall Street movement. This article focuses on the Occupy Wall Street movement to explore the temporal regime of the digital archive and its political consequences.

The project at large aims to uncover connections between crisis and critique that find expression in protest movements and their media practices promoting social change over time rather than tracing the history of one specific movement. The project follows what Sewell (2005) has considered an eventful history that engages with specific events that transformed or have the potential to transform social

structures significantly. Large-scale economic crises and their consequences have this potential for structural change. Furthermore, protest movements become entry points to trace these structural changes, and a diachronic comparative approach allows us to disentangle connections between media-related conditions for expressing critique and large-scale economic crises and to see how these connections in turn relate to moments of profound social change.

The project draws on a variety of methods and materials ranging from in-depth archival work investigating documents of central organizations that aimed to organize the dispossessed to collections of political organizers' personal papers. To investigate the Occupy movement, in-depth interviews with activists involved in the OWS encampment and particularly with the work of the Media Working Group and TechOp Group have been conducted. Beyond the in-depth interviews, Occupy Wall Street's central publications and outlets of the OWS media group, including their websites and the collectively written book *Occupy Wall Street: The Inside Story of An Action That Changed America*, were investigated. Further, a hard drive of born-digital materials that were archived by the Occupy Wall Street Archive Working Group has been analyzed. All material gathered describes central media practices and their roles for the respective movement organizations. It depicts the purpose of the employed practices and allows us to identify the media technologies that had a prominent place in the media work of the activists. In this article, however, the focus is not on the media practices themselves but on the technological infrastructures for archiving movement materials.

Temporalities of Predigital Archives

Other forms of archive, such as the modern bureaucratic archive and community archive, share certain characteristics with each other and with the digital archive. However, they differ in their inherent temporality. These alternate temporalities will be discussed in the following section in contrast with the particular character of the temporality of the digital archive.

In an earlier analysis of the three protest movements considered (Kaun, 2015), I have identified a change in media practices from mechanical speed in the 1930s and perpetual flow in the 1970s to the current regime of digital immediacy that is related to media technologies' temporal properties. In the 1930s, media practices were linked to mechanical speed that was still effortful and emerged through, for example, the reproduction of printed materials with the help of mimeographs. The employment of machines to reproduce brochures, pamphlets, and shop papers help to speed up the reproduction process, and consequently, it was possible to reach out to more people.

In terms of the archive, the temporality of mechanical speed is encompassed by the modern understanding of the archive as an institution and architectural structure that mainly contains paper-based records, which Packer (2010) describes as bureaucratic, state-sponsored, and born in modern liberal societies. In that context, Sven Spieker (2008) speaks of the typewriter, the card index, and files as techniques of control. According to him, these technologies provide a new sense of order in the face of the Industrial Revolution and the loss of economic and political control. Before, control mainly depended on personal relationships, and the Industrial Revolution made it necessary to reestablish a sense of order through bureaucratic organizations, particularly with the help of new communication and transportation

infrastructures. Thus, for the purpose of history, documents are produced and preserved in the first place, which—with the possibility of machine-based reproduction—includes "mass elements that have to be grouped, made relevant, placed in relation to one another to form totalities" (Foucault, 1972/2010, p. 7). The archive constitutes a system of historical enunciability and "reveals the rules of a practice that enables statements both to survive and to undergo regular modification" (p. 129). Foucault's analysis of the archive is not primarily about the materiality of the statement-events (documents) archived but about the discursive practices of archiving as a system of enunciability—a system of proclaiming certain meaning. Lisa Gitelman (2014) defines the process of creating a document as a process of mobilization that is linked to a specific framing and entering into evidence. The history-producing practice of archiving is one way of mobilizing documents. Hence, the archival system constitutes and is constituted by central figures, central organizations and institutions, and central events connected to prominent figures and organizations that are produced as central by becoming part of the archival system. The paper-based documents in the bureaucratic archive are preserved over time according to that established system of enunciability, but in comparison to digital records, travel less easily. Sven Spieker (2008) argues that the modern archive contains the bureaucratic paperwork that is no longer in circulation and has lapsed.

In the 1970s, there was a further acceleration of speed in the (re)production process of media content that intersected with the increased commercialization and globalization of the media technologies employed. Analyzing television as the dominant media technology of the 1970s, Raymond Williams (1974) is especially concerned with a change from sequence as programming to sequence as flow. Referring to flow, he aims to capture the integration of previously separate segments, for example, a theatrical play or musical piece becoming integrated through commercial breaks and trailers. The intercepting elements of commercial breaks and trailers for future programs create a constant flow of parallel narratives capturing the viewer for the whole evening. Writing at the threshold of the 24-hour news cycle, Williams already captured the experience of a constant stream of new experiences, diminishing the real beginnings and endings of the presented items, that television offered.

Can the notion of flow as a temporal regime emerging in 1970s television be translated to the archival context? With the emergence and growing affordability of audiovisual recording in the 1970s that culminated in the introduction of Betamax in 1975 and VHS in 1977 in the United States, archives started to incorporate audiovisual materials, and private audiovisual archives emerged (Free, 1977). Around the same time, the civil rights movement took off in the United States and with it the question of history writing and preservation of experiences and narratives was re-actualized. The discussion particularly took shape in community and alternative archives that were emerging at that time. In general, community archives and community histories are "the grassroots activities of documenting, recording and exploring community heritage in which community participation, control and ownership of the project is essential" (Flinn, 2007, p. 153). Thus, the definition of community archives is twofold: On one hand they are about collecting and preserving objects and narratives, and on the other they are about organizing preservation as a process. Combining technology-related temporalities of the modern state-sponsored archive, community archives also encompassed new temporalities of flow by incorporating audiovisual materials. The temporality of flow was further produced through the particular form of organization of the community-based archive.

The temporality of perpetual flow emerges in the permanently incoming, or inflowing, materials and the documentation of protest while things are happening. Self-archiving practices of social movements re-create what William Uricchio (2005) has called a simultaneity through the "extension of vision in real time" (p. 233). The modern state-sponsored archive emerges out of a slowly evolving discourse of archival rules and codes, whereas community archives are more loosely organized to allow for openness of the organization, inflowing materials, and fluctuating volunteers who might not have completely internalized the order of things.

Immediation in the Digital Archive

Current discussions of digital culture emphasize the increasing speed and immediate character of digitally enabled communication, especially through social media (Bolter, 2000; Bolter & Grusin, 2000; Tomlinson, 2007). During the industrial era, speed was mainly associated with social progress (Benjamin, 1936/2008). In the postindustrial era, the acceleration of speed is increasingly dictated by global capital and culture that is facilitated by communication. Tomlinson (2007) argues, hence, that we are witnessing a development from effortful speed to effortless, immediate delivery. In extension, Vincent Manzerolle (2014) refers to ubiquitous computing as "tending towards real-time, networked communication and a collapsing of spatial distance, with a tendency of contemporary media to accelerate the circulation of information" (p. 211), which leads to the contemporary condition of immediacy. Social media that are largely based on user-generated content are contributing to a blurring and even collapse of boundaries between production and consumption, which allow circulation to accelerate toward immediacy and real time (Manovich, 2009). Social media are expressions of the condition of immediacy, particularly as they emphasize newness and presentness (Kaun & Stiernstedt, 2014).

This resonates with Ernst's analysis of the digital archive being based on permanent updating and real-time processing while memory becomes permanently transitional. In the case of Occupy Wall Street, the Archiving Working Group prepared various technical solutions to mine data (see Figure 1).

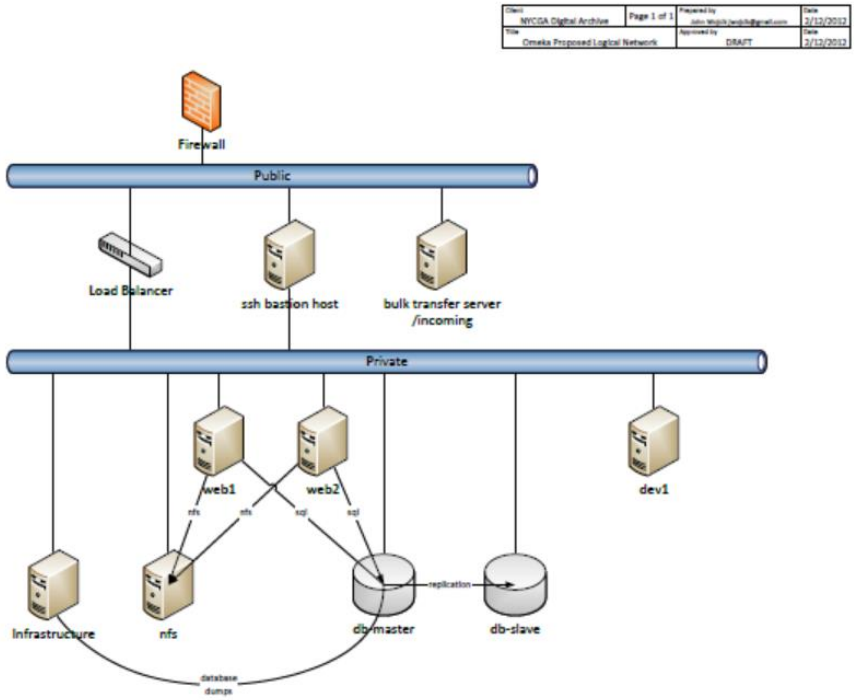

Figure 1. NYCGA Digital archivists' OMEKA[1] proposed draft. Source: OWS hard drive.

The motivation for mining digital data was very much in line with arguments for community archives: to prevent misrepresentation of the movement and to have power over the construction of a historical narrative later on. As John Erde (2014) showed, multiple institutions and actors were interested in archiving OWS. Institutional actors, such as representatives of the Smithsonian National Museum of American History and the New York Historical Society, went to the encampment to collect flyers and posters for their collections. However, the activists themselves were critical toward the archiving activities of these institutional actors and established more lasting connections with alternative archives such as the Tamiment Library and Robert F. Wagner Labor Archives that is now housing one of the OWS hard drives and other physical materials. In a mission statement, the OWS Archives Working Group formulates its goals as follows:

> The OWS Archives working group is committed to preserving materials created as part of or in reaction to Occupy Wall Street. The group is comprised of citizen and professional archivists who currently focus on collection and cataloguing of analogue and

[1] OMEKA is a free and open-source content management system for online digital collections developed by the Rosenzweig Center for History and Digital Media and currently used, for example, by the New York Public Library.

> digital archives. While nearly anything is arguably an archive, the group focuses on posters, publications, signs, unique ephemera, art and fliers, as well as digital archives including digital video, live streams, audio files, oral histories, images, electronic documents, websites and social media content. The reasons to save these materials are beyond simply collecting for posterity: Occupiers actions are represented through these archives. The archives the OWS Archives working group is gathering and protecting carry powerful messages to those who access them in the immediate or distant future. (From a working document on the OWS hard drive)

In terms of the digital materials, OWS made several attempts to develop its own analyses and to construct movement-based narratives. During at least three hackathons—collaborative workshops bringing together programmers and hardware and software developers to work on specific problems—and data-share days, activists tried to find ways to analyze large amounts of digital data such as tweets, pictures, and video streams.

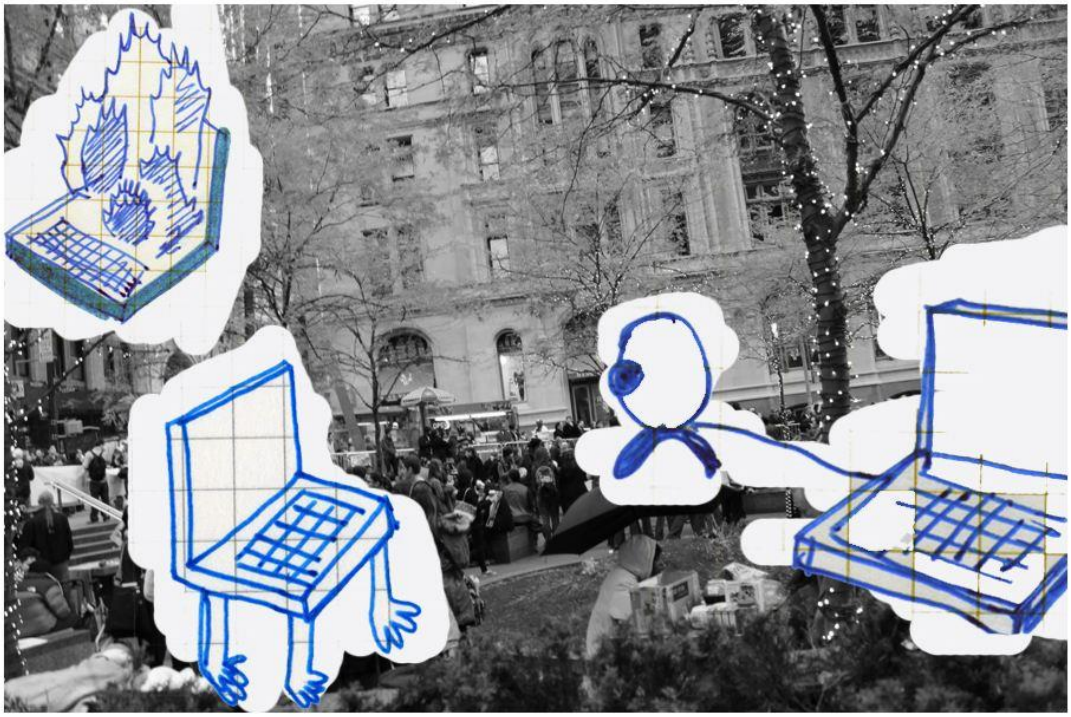

Figure 2. Data-share day call for participation. Source: OWS hard drive.

The hackathons and data-share days organized in 2012 and 2014 identified central themes and narrative streams in the materials (see Figures 2 and 3). During these events activists also analyzed a large-scale survey conducted in the camp and shared individually collected data.

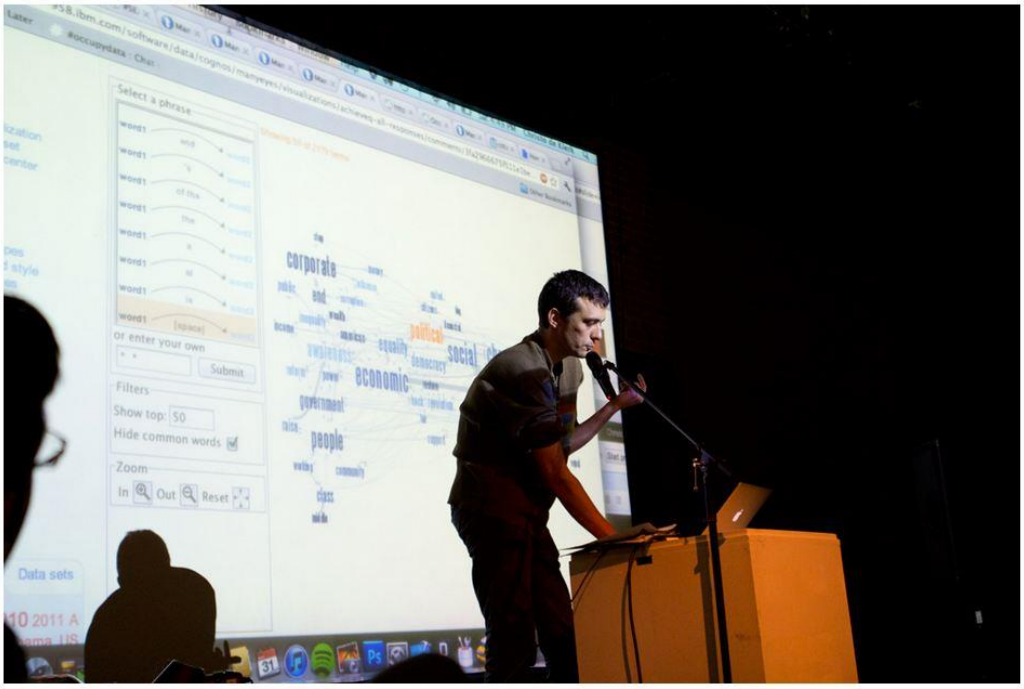

Figure 3. Data-share day. Source: OWS hard drive.

The character of the digital archive as permanently under construction, about updating and process rather than stability, created difficulties in handling the sheer amount of data available. The hackathons were small attempts to manage this infoglut. The hard drive collecting digital materials about the OWS encampment is well organized and indexed in an attempt to manage the information abundance. With the amount of data growing, however, its archiving becomes less about capturing big amounts of data as symbols to be understood than about inputs that need to be sorted, processed, and updated (Andrejevic, Hearn, & Kennedy, 2015). In *Infoglut*, Marc Andrejevic (2013) has conceptualized this tendency—with reference to Zizek—as a decline of symbolic efficiency: a growing emphasis on bypassing representation with the help of big data analysis that focuses on correlation rather than causality.

Zielinski (2006) says of information abundance in relation to order, "the most exciting libraries are those with such abundant resources that it is impossible to organize them without employing armies of staff who would ultimately engineer the loss of this cornucopia" (p. 27). In that sense, one could argue that the specific temporality of the digital archive of indexing, filtering, and algorithmic organization creates a lack of information rather than an abundance. Similarly, Spieker (2008) argues "when an archive has to collect everything, because every object may become useful in the future, it will soon

succumb to entropy and chaos" (p. xiii). Because the digital archive seems to offer the capacity to store everything, it succumbs to entropy and paradoxically lacks information. As information is collected on a large scale, the sheer volume precludes representation. Data analysis with the help of big-data analysis tools is thus often based on the bypassing of symbolic representation, a process that Marc Andrejevic (2013) calls immediation. If immediation becomes a dominant regime, this has consequences for political practices and their archiving. Rather than providing new forums for history writing, digital media become new sites of exclusion, where the possibilities of analysis are constrained by resources and access to often proprietary analysis software. In the case of OWS, this meant that access and possibilities for analysis were constrained by platforms such as Twitter and YouTube that were used both to disseminate messages and to archive developments of the movement. Instead of reclaiming the power over history writing—as put forward by the OWS Archives Working Group—power shifts to commercial players providing storage and processing possibilities if groups do not consider the infrastructure of the technology that they employ. During my interview, members of the TechOp group repeatedly emphasized the importance of building open-source, nonproprietary infrastructures using, for example, OMEKA. However, the majority of born-digital data were produced and hence stored on commercial platforms, impeding the Archives Work Group's aim to preserve power over the messages kept in the archives.

Conclusion

Media technologies play a crucial role not only for a specific mode of production but also for temporal and spatial experiences. Furthermore, they are not only relevant for individual experiences of temporality but also crucial to the sharing and preserving of memories. Changing media-related temporalities can be traced through the changing notion of the archive. Similar to those making early utopian claims about digital media enhancing democracy and participation, scholars studying archives—community archives in particular—have argued that growing autonomy that goes hand-in-hand with digitization (Flinn et al., 2009). Although archiving is made easier through digital media, the temporalities involved have political implications. Numerous activists have pointed to the problems that emerge with digital ephemerality (Donovan, 2013; Terranova & Donovan, 2013). Archiving work—in community or official institutional archives—moves from the tedious work of preserving physical materials to tedious work of indexing and ordering information while the data are constantly updated.

Hence, we must ask whether the digital archive in its commercial and proprietary form, which establishes a temporal regime of immediation and permanent processing, is characterized by a loss of temporal zones. The flattening of temporality and standardization of immediacy encompass a fundamental change in the politics of the archive, which has consequences for activists. Aiming to preserve memories of alternative political imaginations requires us to critically reflect on the technological infrastructures that are used to generate the narratives and to keep the records of the historical developments of movements.

References

Andrejevic, M. (2013). *Infoglut: How too much information is changing the way we think and know*. New York, NY: Routledge.

Andrejevic, M., Hearn, A., & Kennedy, H. (2015). Cultural studies of data mining: Introduction. *European Journal of Cultural Studies, 18*(3–4), 379–394. doi:10.1177/1367549415577395

Benjamin, W. (2008). The work of art in the age of its technological reproducibility: Second version. In M. Jennings, B. Doherty, & T. Levin (Eds.), *The work of art in the age of its technological reproducibility and other writings of media* (pp. 19–55). Cambridge, MA: Belknap Press. (Original work published 1936)

Bolter, J. D. (2000). Remediation and the desire for immediacy. *Convergence, 6*(1), 62–71.

Bolter, J. D., & Grusin, R. (2000). *Remediation: Understanding new media*. Cambridge, MA: MIT Press.

Bradley, H. (1999). The seductions of the archive: Voices lost and found. *History of the Human Sciences, 12*(2), 107–122.

Donovan, J. (2013). Occupy 3.0—A slow network movement. Retrieved from http://wagingnonviolence.org/feature/occupy-3-0-slow-network-movement/

Erde, J. (2014). Constructing archives of the Occupy movement. *Archives & Records, 35*(2), 77–92.

Ernst, W. (2008). *Sorlet från arkiven. Ordning ur oordning* [Stirrings in the archives: Order from disorder]. Munkedal, Sweden: Glänta.

Ernst, W. (2011). Media archaeography: Method and machine versus history and narrative of the media. In E. Huhtamo & J. Parikka (Eds.), *Media archaeology: Approaches, applications and implications* (pp. 55–80). Berkeley, CA: University of California Press.

Flinn, A. (2007). Community histories, community archives: Some opportunities and challenges. *Journal of the Society of Archivists, 28*(2), 151–176.

Flinn, A., Stevens, M., & Shepherd, E. (2009). Whose memories, whose archives? Independent community archives, autonomy and the mainstream. *Archival Science, 9*, 71–86.

Foucault, M. (2010). *The archaeology of knowledge*. New York, NY: Vintage Books. (Original work published 1972)

Free, J. (1977). Look and Listen: JVC's VCR spectacular. *Popular Science 211*(3), 30.

Gehl, R. W. (2011). The archive and the processor: The internal logic of Web 2.0. *New Media & Society, 13*(8), 1228–1244. doi:10.1177/1461444811401735

Gerbaudo, P. (2012). *Tweets and the streets: Social media and contemporary activism.* London, UK: Pluto Press.

Gitelman, L. (2014). *Paper knowledge. Towards a media history of documents*. Durham, NC: Duke University Press.

Hobsbawn, E. (1998). On history from below. In E. Hobsbawn (Ed.), *On history* (pp. 266–286). London, UK: Abacus.

Kaun, A. (2015). Regimes of time: Media practices of the dispossessed. *Time & Society, 24*(2), 221–243. doi:10.1177/0961463X15577276

Kaun, A., & Stiernstedt, F. (2014). Facebook time: Technological and institutional affordances for media memories. *New Media & Society, 16*(7), 1154–1168. doi:10.1177/1461444814544001

Manovich, L. (2009). The practice of everyday (media) life: From mass consumption to mass cultural production? *Critical Inquiry, 35*(2), 319–331. doi:10.1086/596645

Manzerolle, V. (2014). Technologies of immediacy/economies of attention: Notes on commercial development of mobile media and wireless connectivity. In L. McGuigan & V. Manzerolle (Eds.), *The audience commodity in a digital age* (pp. 207–228). New York, NY: Peter Lang.

Mercea, D. (2013). Probing the implications of Facebook use for the organizational form of social movement organizations. *Information, Communication and Society, 16*(8), 1306–1327. doi:10.1080/1369118X.2013.770050

Mosco, V. (2005). *The digital sublime: Myth, power, and cyberspace*. Cambridge, MA: MIT Press.

Mosco, V. (2014). *To the cloud: Big data in a turbulent world*. Boulder, CO: Paradigm.

Packer, J. (2010). What is an archive? An apparatus model for communications and media history. *The Communication Review, 13*(1), 88–104.

Parikka, J. (2015). *A geology of media.* Minneapolis, MN: University of Minnesota Press.

Rosa, H. (2013). *Social acceleration: A new theory of modernity*. New York, NY: Columbia University Press.

Sewell, W. (2005). *Logics of history: Social theory and social transformation*. Chicago, IL: University of Chicago Press.

Spieker, S. (2008). The big archive: Art from bureaucracy. Cambridge, MA: MIT Press.

Terranova, T., & Donovan, J. (2013). Occupy social networks: Paradoxes of corporate social media for networked social movements. In G. Lovink & M. Rasch (Eds.), *Unlike us reader: Social media monopolies and their alternatives* (pp. 296–311). Amsterdam, Netherlands: Institute of Network Cultures.

Tomlinson, J. (2007). *The culture of speed: The coming of immediacy*. Los Angeles, CA: SAGE Publications.

Tufekci, Z. (2014). Social movements and governments in the digital age: Evaluating a complex landscape. *Journal of International Affairs, 68*(1), 1–18.

Uricchio, W. (2005). Television's next generation: Technology/Interface culture/Flow. In L. Spigel & J. Olsson (Eds.), *Television after TV: Essays on a medium in transition* (pp. 232–261). Durham, NC: Duke University Press.

Williams, R. (1974). *Television: Technology and cultural form.* New York, NY: Schocken Books.

Zielinski, S. (2006). *Deep time of the media: Toward an archaeology of hearing and seeing by technical means.* Cambridge, MA: MIT Press.