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The Dynamics of Scale in Digital Heritage Cultures

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In recent decades digital technologies have provided new methods for fostering engagement between cultural heritage organizations and their audiences. At the most basic level, this might involve accessing digitized heritage collections online. Increasingly, there is also an emphasis on reusing and remixing digital heritage content, which signals a shift in the positioning of audiences from cultural consumers to cultural producers (Beer and Burrows 2013). These examples demonstrate how the technical structuring and communication of heritage collections can shape changes in contemporary heritage management and in practices such as collection, preservation, presentation and interpretation.

In this chapter, we investigate the scalar politics of networked digital heritage through examination of the large-scale heritage aggregators Europeana and the Digital Public Library of America (DPLA). Here, the term aggregator refers to an organization that collects, formats and manages digital data from multiple providers, and offers federated access to that data via services like online portals (Europeana 2016). Digital aggregators, because of their nebulous geographic location, complicate heritage debates around local, national and transnational scales, especially those that assume the recuperative potential of heritage projects rests in specific localities (Arantes 2007; Coombe and Weiss 2015). Such geographical scaling is troubled by the distributed structures of digital aggregators, which are not spatially bounded in the same way. Europeana and the DPLA provide an opening for further discussion of these issues. The former is comprised of a database and website that offers access to digitized items from over 2500 of Europe's museums, libraries and archives. The latter, more recent, project is based around a similar model but operates at a national rather than a supranational scale and promotes public access through forging relationships across a range of American libraries and

smaller public organizations. It is funded by a combination of US government grant agencies and private research foundations (Darnton 2013). We begin by outlining our approach to scale, informed by the work of Michel Foucault and Tony Bennett, and then go on to assess the technical elements of Europeana and the DPLA in more detail with reference to the policy and strategic planning documents of both projects. We analyze these in relation to the universal ideas they express, namely Europe and the public. We conclude with some reflections on scale and the implications of heritage aggregators for digital heritage cultures.

Scale and Governmentality

In line with the aims of this volume, our examination of digital heritage aggregators will highlight the political dimensions of scale and the interconnectedness of scalar entities, through recourse to Foucauldian scholarship on power/knowledge formations. Much of Foucault's later writing on governmental rationality, or governmentality, explored these formations. In a 1982 lecture series, he explained, 'the contact between technologies of domination of others and those of the self I call governmentality' (Foucault [1982] 1988: 19). Colin Gordon elaborates on this description, explaining practices of government as follows:

> Government as an activity could concern the relation between self and self, private interpersonal relations within social institutions and communities and, finally, relations concerned with the exercise of political sovereignty. Foucault was crucially interested in the interconnections between these different forms and meanings of government. (Gordon 1991: 2 –3)

Foucault's work has been influential across a number of disciplines and now comprises a field of inquiry in its own right, loosely labelled governmentality studies. In the realm of cultural studies, too, his approach has been taken up by scholars researching policy and administration. Foremost among these is Bennett, an Australian scholar, whose work on the relations between

knowledge practices and governmentality has made a significant contribution to cultural heritage debates, particularly regarding the institution of the museum. Bennett (1990) observes how historical sciences such as anthropology guided museological techniques in the nineteenth century, as part of the development of modern modes of liberal government, and stresses the disparity between the museum's democratic rhetoric and the rationality of public instruction constituted in its functioning. In broader terms, his work is directed towards understanding the concept and logic of culture, based on Foucault's methodological principles. In his 2013 publication, *Making Culture, Changing Society*, Bennett distinguishes the emergence of culture as a 'complex':

> The culture complex … is, the public ordering of the relations between particular kinds of knowledges, texts, objects, techniques, technologies and humans arising from the deployment of the modern cultural disciplines (literature, aesthetics, art history, folk studies, drama, heritage studies, cultural and media studies) in a connected set of the apparatuses (museums, libraries, cinema, broadcasting, heritage sites, etc.) … This complex consists in its organisation of specific forms of action whose exercise and development has been connected to those ways of intervening in the conduct of conduct that Foucault calls governmental. (Bennett 2013: 14)

Bennett's approach is instructive; in applying governmentality to the analysis of culture, he provides a means of investigating the ways in which specific forms of knowledge and expertise give rise to mechanisms, techniques and technologies for the practice of government. This focus is important insofar as our discussion focuses on the practices underpinning notions of 'Europeanness' and 'publicness' in the case studies. Moreover, Bennett's utilization of governmentality supports analysis across the multiple relational sites and contexts of heritage aggregators. Our inquiry into these aggregators is concerned with both their technological

features and the multiplicity of their scalar manifestations, which the governmentality perspective addresses.

Also important is Foucault's (1979) identification of practices of government that function via the mutually reinforcing relation of 'all and each'. The presupposition of relative autonomy underpins governmental practice and is at once individualizing and totalizing, operating at both micro and macro levels.[1] Recognition of this mutually reinforcing relation acts as a useful corrective to scholarly critiques of state-sanctioned heritage regimes, which are often situated in opposition to local traditions or personal experiences. As David C. Harvey (2015: 589) cautions, 'it is crucial that we should understand the spatialised geometries of power rather than be blinded by any warming glow of localness'. An analytics of government (Dean 1999) in the vein of the approach we have described, positions practices of state and institutional control within a wider framework of practices of self-regulation and differentiation. Furthermore, the move of all and each speaks to our specific concerns about the scalar logic of digital heritage aggregators, which are premised on the empowerment of the user through the centralization of resources in a widely accessible format. This relationship will be explored in more detail below.

Europeana and the DPLA

The emergence of large-scale heritage aggregators such as Europeana and the DPLA has, on one level, been facilitated by the networked structure of the Internet, and signals a move towards the standardization of digitized material from across different cultural heritage collections (e.g. those of museums, libraries and archives). The technical metaphors aligned with this model of organization have been traced in a number of ways by media theorists, perhaps most famously by Lev Manovich in the designation of the database as a cultural form; he suggests that the database, through the various non-sequential operations it can perform, offers new ways of

structuring knowledge beyond traditional narrative forms (Manovich 1999). Geoffrey C. Bowker proposes a qualification to Manovich's theory, indicating that computerized databases are the outgrowth of a longer movement towards standardization and universal classification, which began in the nineteenth century. He writes that contemporary practices are characterized by the 'greatly increased centrality of the past for the operation of the state … and greatly increased technical facilities for such reworking (of the past) with the development of database technology' (Bowker 2005: 32). Europeana and the DPLA both utilize database technology. However, they express an ambiguity of purpose on the subject of centralized resources. In its latest strategic plan, Europeana defines itself as a platform, 'a place not only to visit but also to build on, play in and create with' (Europeana 2014: 10), while the DPLA has, from the beginning, stressed the need to incorporate a blend of centralized and distributed models of access (DPLA 2011: 2). Furthermore, neither project stores digital content, instead aggregating digital object metadata and pointing to the institutional sites where these objects are held (Darnton 2011).

Background

Before discussing how Europeana and the DPLA function and the ideas they embody, it is first important to clarify the distinct set of social and geopolitical circumstances out of which these projects developed. The original impetus for the Europeana initiative was to safeguard Europe's cultural heritage after the announcement of the Google Books Project in 2005 (Purday 2009). There were worries that Google would end up digitizing and privatizing a large of volume of European print works, and so the proposal was made for an equivalent programme – a 'European digital library' – that was open access, with non-exclusive rights (European Commission 2005). Funded by the European Commission (EC), the prototype database was launched in November 2008, which provided access to digitized content (initially around 4.2

million items) from across European museums, libraries and archives via the website www.europeana.eu (cf. Marton 2011). Since then, it has continued to accumulate content and 30 million items were available through the online portal by 2015 (DPLA 2015a). The scale of the target matches the project's ambition to be a comprehensive and representative source for Europe's cultural heritage. As the former Chair of the Europeana Foundation Board, Elisabeth Niggemann, wrote, 'Europeana will become the trusted source of Europe's collective memory' (Europeana 2011: 4). This expression of an explicitly European memory culture is connected to the aims of the EC, to promote unity through the creation of shared values and cultural symbols such as the European flag and the Euro (Macdonald 2013). In much the same way, the EC's cultural heritage projects are intended to forge and popularize a cohesive European identity.

The DPLA project was launched later than Europeana, in April 2013, although Robert Darnton, a member of the Directors' Board, recalls the initial presentation of the idea at a 2010 conference: 'The DPLA, we resolved, would be "an open, distributed network of comprehensive online resources that would draw on the nation's living heritage from libraries, universities, archives, and museums in order to educate, inform, and empower everyone in the current and future generations"' (Darnton 2013). In a similar way to Europeana, the project was originally conceived as a public, non-commercial alternative to Google Books, influenced by the principles of the American public library movement in the nineteenth century (Darnton 2013). In the years following 2010, a combination of public and research librarians and experts in the fields of libraries, technology, law and education, collaboratively established the DPLA infrastructure (DPLA 2016). By the time its website went live, the project had amassed a substantial amount of digital content, primarily from larger institutions such as Harvard, the New York Public Library, the Smithsonian and HathiTrust. However, it remains committed to

enabling smaller public libraries to contribute items from their own collections and is now run as a registered non-profit organization (DPLA 2016).

Technical Framework

Despite their different remits and timeframes, DPLA developers have worked with Europeana from the early stages of the project to make their systems interoperable. There are several factors involved in this process. As mentioned, both are aggregators, meaning that they aggregate digital object metadata and direct users to the institutions where these objects are held via a website, portal or application program interface (API).[2] The digital objects are hosted from the institutions' sites rather than from the aggregators themselves. The broad term digital object is understood to encompass a range of artefacts, including thumbnail images, digital photographs of artworks and other visual material and digital scans of text and print works. Metadata refers to the descriptions of those digital objects to facilitate their discovery online. Europeana's first experiments in creating a metadata standard flexible enough to accommodate library, archive and museum holdings resulted in European Semantic Elements (ESE), which was followed in 2013 with the European Data Model (EDM) interface (Kenny 2015). Much technical effort went towards the development of the EDM, with the aim of creating enriched metadata and greater compatibility between discrete digital collections. For example, the interface allows for the representation of contradictions, so that different descriptions of digital objects can coexist via proxy elements. This function is important, particularly in the cultural heritage sector in relation to provenance, which can be contested. Hence, the EDM accommodates needs at various scales: programmers are satisfied by a tool that more or less conforms to accepted standards because they can program with it or for it. Meanwhile, cultural heritage organizations have a measure of autonomy in that they can present their own interpretive framework for their collections.

The DPLA metadata application profile (DPLA MAP) is based on the EDM and also aims to unify digital content from a range of institutions (DPLA 2015b). As well as enabling interoperability between the two aggregators, these standards facilitate the linking up of collections at different scales, e.g. national and smaller regional museums, libraries and archives. As Darnton (2013) observed, 'within a generation, there should be a worldwide network that will bring nearly all the holdings of all libraries and museums within the range of nearly everyone on the globe'. Yet, despite the potential of global standardization, each project is defined in more abstract scalar terms, specifically through ideas of Europe and the public. In both cases, these reflect uncertain locations and identity structures that complicate their respective supranational and national boundaries. This issue raises questions about the local contexts the standards are intended to reach; as Bowker et al. (2010: 102) query, 'to what extent is a metadata standard designed generic enough to represent a domain ("reach or scope") while aiming at fitting local structures, social arrangements, and technologies ("embeddedness")?'. In order to draw out the relationship between abstract and more local expressions of Europeanness and publicness, it is necessary to examine how each project engages with its audiences.

Audiences

The earlier reference to Europeana's presentation of itself as a platform is linked to its strategic aim to meet 'rising user expectations' and provide ways to interact with and reuse the material people encounter via the database (Europeana 2014: 10). The original assumption was that aggregating and making digital heritage content available online would automatically lead to higher engagement, and this was not the case (Europeana 2011). Nick Poole acknowledged that '"access" as a principle has failed almost entirely because it is passive – we have had to learn to move on from passive provision of access to proactive engagement with audiences'; he

suggested that ‘the next challenge is not mass-digitisation or mass-preservation, but mass-curation of the sheer volume of cultural content’ (Poole 2014). Poole was the Chair of the Europeana Network (2010–2014) and the Chief Executive Officer of the Collections Trust up until 2015, the organization that managed the UK aggregator for Europeana cultural heritage data. As such, he was involved in the writing of Europeana’s 2020 Strategy, which presents a similar view that digital heritage needs to be made meaningful to people through curation and creative open use (Europeana 2014).

Some of Europeana’s more recent projects have attempted to address these concerns. A notable example is Europeana 1914–1918, an initiative to commemorate the centenary of the First World War. It brings together collections from the Europeana database in conjunction with documents and memorabilia gathered from individuals and digitized at several European roadshows. There is also an online collections form on the website, where personal stories and images can be uploaded. Europeana 1914–1918 goes some way towards meeting Poole’s call for ‘mass-curation’ of cultural content because it looks at the broader context and impact of WWI, inviting individual and collective contributions, and making them available in the curated space of the website. In addition, all the material is available for reuse, which allows for adaptation of the content.

Underlying the model of curation and creative reuse, however, is the rationale for Europeana itself, which is related to the EC’s aim of promoting a shared European culture, and has been described as a form of soft power (Shore 2006). Therefore, the increased focus on individual stories and experiences could also be read as a revision of its strategies for political cohesion, employed when previous approaches failed to engage audiences in anticipated ways. This suggestion brings us back to the terrain of Foucault and governmentality. As Rosemary Coombe and Lindsay M. Weiss observe, it is in-keeping with governmental strategies to seek to foster regulated freedom in persons and locales: ‘The cultivation of personal autonomy is

one means through which such technology does its social work' (Coombe and Weiss 2015: 45). Another way of framing the EC's aims is through Anna Tsing's notion of effective generalization. She writes:

> Generalization to the universal requires a large space of compatibility among disparate particular facts and observations. As long as facts are apples and oranges, one cannot generalise across them. One must first see them as 'fruit' to make general claims. Compatibility standardizes difference. It allows transcendence: the general can rise above the particular. For this, compatibility must pre-exist the particular facts being examined; and it must unify the field of enquiry. The searcher for universal truths must establish an *axiom of unity* – whether on spiritual, aesthetic, mathematical, logical, or moral principles. (Tsing 2005: 89)

So, while the centenary of the War has been an occasion for the articulation and exploration of different cultures of memory and forgetting, it also has a sufficiently large space of compatibility, as a pan-European catastrophe, to act as an effective generalization.[3] Generalizations standardize difference and fold particulars into universals in the online heritage space of Europeana. While this may be a productive process with respect to fostering mutual understanding, the stakes are important: the memorial culture around the War has a minimum consensus – an axiom of unity in Tsing's terms – yet the idea of a federal Europe does not. As Marc Abélès (2004: 5) discerns, 'on the contrary, the word "federation" seems to repel most of the (EU) member states'. Such generalizations again draw attention to the issue of standardization and the embeddedness of politics in technologies like Europeana. Here, it is Europeana's users that are implicated in the process; the project targets different 'locals' – different potential actors, local institutions and populations, down to individual contributors – to support its transnational identity claim, which is in line with the governmental rationality of the EC.

The DPLA also combines universal and local scales in its public vision. Understandings of publicness have historically been defined in relation to various manifestations of the private; the domestic space of the home was crucial in marking this divide and separating privacy and intimacy from the duties of public life. In a similar way, the establishment of publicly funded and maintained institutions has come to represent a defence against the widespread privatization and marketization of fundamental services (Chun 2016). Such places are generally regarded as trustworthy, in part due to their public service remit. Bennett's work demonstrates how the idea of the public was at the heart of a developing definition of the museum in the nineteenth century: the museum's rhetoric 'is, in the main, characterised by two principles: first the principle of public rights sustaining the demand that museums should be equally open and accessible to all; and second, the principle of representational adequacy sustaining the demand that museums should adequately represent the cultures and values of different sections of the public' (Bennett 1990).

This historical contextualization has parallels in the history of US public libraries (Pawley and Robbins 2013), the namesake of the DPLA. However, although the DPLA positions itself as a digital continuation of the traditions embodied in public libraries, it is interesting to note that there has been some ambivalence about the project from library practitioners. The report from an early working group meeting registers apprehension about the relationship between the DPLA and public libraries: participants 'expressed concerns that a DPLA may inadvertently take public funding away from existing public libraries, while others pointed out that a DPLA could help drive attention to public libraries. Many participants emphasized that a DPLA will support, not replace, existing public libraries' (DPLA 2011: 4). As the extract suggests, the DPLA and public libraries meet at the intersection of knowledge organization, even while the form of publicness at issue seems more historically aligned with physical spaces than technical infrastructures. This apprehension reveals a number of tensions

around conceptions of publicness and its entanglement in ongoing debates about public goods and diminishing public funding for institutions like public libraries and state museums.

The DPLA would later clarify its use of the term public to denote a 'critical, open intellectual landscape … in the face of increasingly restrictive digital options' (DPLA 2016), much as Europeana was conceptualized as a public endeavour that would provide an alternative to corporate entities like Google. Here, the DPLA acknowledges the growing privatization of digital cultural content, although it also points towards a shifting understanding of term public, embedded as it is within the privatized infrastructure of the Internet. Such restrictions partly explain its commitment to supplementing the services that public libraries provide, with activities including digitization, metadata creation and enhancement, hosting and community outreach programmes (DPLA 2016). These support the aims of the initiative to link up collections at local and national scales, which is facilitated by its use of the metadata application profile (DPLA MAP). A differentiation in services also serves to allay the fears of public libraries and other institutions the DPLA relies on to provide digital objects and metadata for aggregation: it casts the publicness of the DPLA in a different light to that of the traditional public library, thus attempting to remove the possible competition for resources anticipated in the excerpt above.

In the assertion that the DPLA makes America's riches 'freely available to the world' (DPLA 2016), it is possible to detect the influence of older notions of public space as 'an emptiness that enables free and equal speech' or access (Massey 2005: 152). As Darnton (2013) put it, 'what could be more utopian than a project to make the cultural heritage of humanity available to all humans?' Yet, while these lofty ambitions seem partially realizable via the infrastructure of a digital public space, that is not to say that access to the infrastructure itself will be similarly democratic or far reaching. Therefore, to return to Tsing's theory, it may be that the public is a sufficiently effective generalization to achieve compatibility among a range

of institutions and actors. In practice though, the DPLA must go beyond the development of technology that makes digital heritage widely discoverable, and address the unevenness of public rights in different localities, and at different scales. Its grassroots organization and hosting of outreach events demonstrate some of its methods for achieving that. These efforts involve openness of process and ongoing negotiation about the general or local shape of public entities. Only through such negotiation can the potential for more productive and equitable scalar relationships be created.

Conclusion

In this discussion of digital heritage aggregators, we have compared the formation of the Europeana project with that of the DPLA. In their technical development, there are clear parallels; indeed, the data model created by Europeana was reused and adapted for the DPLA. The motives underlying this decision are numerous, some of which have been alluded to previously. For example, the interoperability of European and transatlantic digital heritage collections allows for broader searches and cross-comparison with a larger range of sources. Technical solutions are primarily focused on how such outcomes can be achieved. However, there are also a set of questions to be asked regarding what is lost in the process of standardizing content, and the relative losses and gains of effective generalizations (Tsing 2005). Focusing on the needs of individual users does not always counteract this tendency of standardization, since, as Foucault's work shows, techniques of government can be both individualizing and totalizing (1979). Likewise, what has been described as the democratizing effect of heritage aggregators (Darnton 2011) can, at the same time, obscure the political gestures implicit in their conceptual framing.

We would argue for a critical and reflective approach to these entities, one that makes visible the political and ethical decisions taken in developing universal standards (Bowker and

Star 1999). Just as the organization of knowledge in museums, libraries and archives has had powerful socially differentiating effects (Bennett 1990), so the workings of digital heritage aggregators have significant implications for contemporary organizational practices. This short study provides a way into thinking about the digital mediation and structuring of such practices, and about the multiple scales at which heritage aggregators operate. By emphasizing the interconnectedness of these scalar dimensions, it makes a distinctive contribution to understanding the politics of scale in digital heritage cultures.

Notes

[1] The mutually reinforcing relation of all and each is a relationship we address in more detail elsewhere. See, for example, Bettivia and Stainforth 2015.

[2] An API is a web service which can be used to access collections data and incorporated into new applications, e.g. other websites.

[3] Steffi de Jong (2011) has noted a similar move in the presentation of WW2 narratives, suggesting the war is remembered as a tragedy 'in which all Europeans appear equally as victims' (de Jong 2011: 378).

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