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Walker, Dominic ORCID logo ORCID: <https://orcid.org/0000-0001-6480-7047> (2014) Decentering the discipline? Archaeology, museums and social media. AP: Online Journal in Public Archaeology, S1. pp. 77-102. ISSN 2171-6315

10.23914/ap.v4i2.61

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Editors:
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Online Journal in Public Archaeology

*Emerging Approaches
to Public Archaeology*

Decentering the discipline? Archaeology, museums and social media

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Abstract

In recent years archaeologists have asserted the value of social media for achieving goals such as 'shared authority' and the 'empowerment' of various communities. These assertions often resemble techno-utopian discourse. However, it is essential to critically consider these assertions with reference to the important studies emerging from the fields of new media studies and Indigenous and collaborative archaeology, which have particularly emphasised the need for a greater awareness of socio-political contexts. Informed by this literature, this paper surveys some of the emerging and established uses of social media by archaeologists and museums, and proceeds to introduce factors that challenge the broadly positive discourses about the impact of social media on various communities. It also highlights the need for short- and long-term impact studies.

Keywords

Museums, Social Media, Internet Studies, Inequality, Collaboration, Authority

Introduction

Public archaeologists are by now well aware that archaeology can be used as a tool to attend to the needs of various communities (including their own academic or professional communities) by sharing some of the benefits of projects beyond simply producing new knowledge about the past (Colwell-Chanthaphonh and Ferguson 2008; Little 2002; Little and Shackel 2007; Marshall 2002; Welch *et al.* 2011). Archaeologists working under labels like 'collaborative' or 'Indigenous archaeology' have attempted to more fundamentally

challenge the authority they hold over the interpretation of cultural heritage. For instance, in many collaborative archaeology projects, the knowledge held by extra-disciplinary communities (e.g. those external to archaeology or heritage institutions) has been brought to the fore. This has been posited to hold the potential to at once 'empower' a community to interpret their own heritage, while also producing richer or more epistemologically diverse interpretations of cultural heritage than traditionally authorised approaches to archaeology would provide alone (Colwell-Chanthaphonh *et al.* 2010; Smith 2006). The notion of 'decentering' can be advanced here as a concept that refers to the centering of previously marginal concerns, knowledges and perspectives, as well as to the more equitable sharing of the benefits that may accrue from archaeology (Conkey 2005; Silliman 2008; Wylie 2003, 2008).

In recent years, a growing number of archaeologists, and museologists to a greater extent, have asserted the value of social media technologies for more effectively realising these laudable goals. However, the largely positive, occasionally near utopian, discourses about the democratising and decentering impact of the web have seemingly discouraged critical reflections on the factors that may limit or prevent more democratic online participation and therefore also situations resembling 'shared authority'. This becomes particularly apparent when it is realised there is currently a lack of empirical studies assessing the actual short- or long-term impact of online projects and initiatives beyond simple quantitative measures. This paper surveys some of the emerging and established uses of social media by archaeologists and museums, and proceeds to introduce factors that challenge the broadly positive discourses about the impact of social media. This analysis is informed by theory drawn from public archaeology in addition to perspectives on social media drawn from new media and internet studies.

Social media: Internally focused and externally focused uses

For many early internet theorists, the internet was considered as a space for harbouring true participatory democracies (Rheingold 1994), but most eventually settled with more synoptic visions of online spaces. To some extent, the popularisation of social media

from the mid-2000s onwards prompted a revival of the more positive discourses. For instance, some theorists have argued that the most fundamental shift was the one that saw one-sided mass communications replaced by participatory websites that together comprised an internet within which power is shared amongst individual users (see Benkler 2006; Shirky 2008).¹

Since the late 1990s, a small number of archaeologists based within academic and other institutions have identified the web as a tool by which postprocessual tenets like multivocality could be realised (e.g. Hodder 1999; Joyce and Tringham 2007; McDavid 2004). However, it is important to adopt a broader definition of online archaeology work to include the work conducted by individuals working in heritage organisations and the museums sector. Museum professionals have more widely experimented with the potentials of the web, and the body of literature produced as a result offers some important points of reflection.² However, amongst archaeology, heritage and museum professionals, there have been few sustained discussions about the factors that may prevent the realisation of online democratic participatory spaces (but see Richardson 2013: 6–8; Smith and Waterton 2009: 119–137).

Many uses of social media may be categorised as internally focused as they primarily serve academic, personal and professional purposes, such as the professional ‘networking’ and the sharing of information evident within archaeological and museum communities. Other uses can be considered externally focused, tending towards engaging or collaborating with audiences external to academic disciplines or institutions. A case may be made that internally focused activities aid the expansion or deconstruction of

1 Social media are closely associated with the term ‘Web 2.0’, which refers to the participatory websites popularised from the middle of the last decade. Web 1.0 websites tend to disseminate information to individual web users who cannot easily contribute their own content to a website. Web 2.0 sites, by comparison, allow for users to contribute their own content through interaction with content provided by a website owner or proprietor, as well as with the content provided by other internet users (i.e. ‘user-generated content’).

2 For a review of some of the early uses of the web in museums see Jones (2007); Parry (2007). For examples of social media work in archaeology see Bonacchi 2012; Kansa *et al.* 2011; *World Archaeology* 44(4) 2012. For examples within the wider museums and heritage sector see the *Museums and the Web* conference; Adair *et al.* 2011; Cameron and Kenderline 2010; Giaccardi 2012; Marty and Jones 2009; Parry 2007, 2010.

disciplinary boundaries and internal hierarchies.³ For example, open dialogues may occur between junior and senior scholars (see Kansa and Deblauwe 2011) and increased interaction may be evident between academics in different disciplines (Neylon 2013; also see Day of Digital Humanities [n.d.]).⁴ This is an area demanding further study. However, it is the more externally focused social media uses that often appear to implicitly, if not explicitly, accept that idea that social media are tools by which traditionally excluded audiences may be reached, as well as a means by which to subvert disciplinary or institutional authority to various democratic ends (e.g. Adair *et al.* 2011).

Engagement and collaboration on the social web

It been asserted that museums may become more responsive to new audiences and they can better achieve educational missions by affording access to online information about cultural heritage materials. This has been linked to currently prevailing theories of museum education, especially constructivism and theories of identity and meaning-making (e.g. Kelly and Russo 2010; Russo

3 Primarily internally focused uses of social media include: sharing data or making them 'open' for re-use (Kansa and Kansa 2011); sharing information about jobs and publications (Dunleavy and Gilson 2012; Terras 2012); personal and professional support, particularly on social networking sites; using blogs for informing those within a discipline or professional sector (Caraher 2008; Kansa and Deblauwe 2011); securing support and funding for campaigns or projects (e.g. Schreg 2013; also see discussions based around particular Twitter hashtags, such as '#freearchaeology' which has focused upon issues of unpaid labour in archaeology; and various crowdfunding endeavours, such as DigVentures [n.d.] and the Bamburgh Research Project [n.d.]); engaging in discussions around areas of particular professional or academic interest (e.g. Museum3 n.d.; Zooarchaeology Social Network [see Kansa and Deblauwe 2011]); organising events or group activities (e.g. Drinking About Museums [see Rodley 2013]); engaging with scholars in other disciplines (e.g. the Day of Digital Humanities [n.d.], in which a number of archaeologists have participated); and enabling discussion between academics, professional, avocationalists and other communities (e.g. the Day of Archaeology [n.d.] has seen contributions from archaeologists from professional and academic spheres).

4 Beginning in 2009, the Day of Digital Humanities (n.d.) is an annual online event hosted by researchers at the Center for Digital Humanities and Social Sciences at Michigan State University. It encourages individuals whose research has digital aspects to contribute posts documenting their days' work to a personal page, which is hosted on the main Day of Digital Humanities website. Together, the pages of numerous researchers are intended to represent the range of activities performed by scholars who can be identified as 'digital humanists'. Similarly, the online 'Day of Archaeology' (n.d.), occurring annually since 2011, encourages archaeologists to document their days' activities in order to help answer the question, 'what do archaeologists do'? An ultimate intention is to raise public awareness of the relevance of archaeology to contemporary society.

et al. 2009). It has also been argued that: museums may aid in a shift towards a more egalitarian society by engaging individuals previously marginalised from museum activities (e.g. Russo *et al.* 2009; Sumption 2001); museums may improve their collections by gaining supplementary information through empowering audiences to interpret collections alongside museum curators (e.g. by encouraging users submitting content to the museum; Cairns 2013; Kelly and Russo 2010; Trant 2009); and museums may, in some cases, redress the more colonial histories of museums by affording interpretive authority to source and descendant communities (e.g. Christen 2011). Taken together, individuals who interact with museums online are considered 'empowered' because they can communicate equitably with a museum, as well as amongst each other, around digitised cultural heritage information resources and the issues raised by them. Amongst the smaller body of work in archaeology, a common theme has also been that of decentering the authority of interpreting the past beyond more senior archaeologists in particular and the archaeological discipline more generally (e.g. Brock 2012; Morgan and Eve 2012; also see Hodder 1999; Joyce and Tringham 2007; McDavid 2004).

Positive discourses about the social web are ubiquitous. However, there has been a lack of sustained engagement with the body of critical literature emerging from new media and internet studies. This would allow for more balanced conclusions to be drawn about the long-term impact of the social web upon cultural heritage institutions and disciplines like archaeology. This being the case, it is presently difficult to conclude that a more decentered public archaeology has actually been achieved, in which the accrual of benefits and the authority to interpret cultural heritage is equitably shared. Issues of particular concern are how pre-existing ('offline') inequalities may affect the nature or composition of online communities, as well as how structures of authority (e.g. the authority of cultural institutions to decide what is worth curating or the authority of the archaeological discipline to define what is legitimately 'archaeology'; see Holtorf 2009; Smith 2004) may transfer online, and whether these may be reinforced rather than transcended or transformed.

Some of the main externally focused platforms and uses of social media within archaeology and museums are introduced below, before an analysis is presented of some of the assertions made about the democratic nature of social media and the web.⁵

Blogs

Blogs (a contraction of the words 'web' and 'log') are webpages displaying short entries on particular topics. Other users may be able to comment upon these posts. Some internet theorists consider blogs as empowering people to become 'citizen journalists' who can compete with traditional media elites (e.g. Bruns 2005; Kahn and Kellner 2004). However, cultural authorities such as museums (as well as traditional media elites) have certainly established blogs alongside the blogs of 'ordinary' people.⁶ Museum blogs, for instance, often include posts about particular objects (e.g. the conservation process, the stories surrounding an object, or other supplementary contextual information). It is considered that blogs allow for two-way communications between the museum and the online users. Even if users do not actively comment upon blogs (most do not), they can be considered useful for revealing the 'human side' of an institution or individual professional (Bernstein 2008; Dicker 2010). Similar arguments have been asserted about externally focused archaeological blogs intended to engage interested publics in archaeological research. For example, blogs may be used to reveal the contingency of interpretations, solicit contributions from interested online users, or to raise awareness of, support for and encourage participation in archaeology (see Brock 2012; Day of Archaeology n.d.).

Social networking sites

Social networking sites are probably the best-known kind of social media, and Twitter and Facebook are surely the most famous examples. They are characterised by their ability to support pre-

⁵ This is not a comprehensive review; many social media platforms are not discussed here (e.g. Flickr, FourSquare, Pinterest, Tumblr, Vine). Additionally, it should be noted that different social media platforms may be used simultaneously by an individual, institution or organisation.

⁶ Alongside organisational blogs, many individuals maintain their own blogs to present personal opinions and research (e.g. Rocks-Macqueen [n.d.]; Simon [n.d.]; and Yates [n.d.]).

existing social networks, as well as encouraging the creation of new connections around particular topics of interest (e.g. academia.edu for academic communities, Flickr for photography, last.fm for music). Social networking sites allow for conversations around content (e.g. status updates, photographs, links to websites) provided by page proprietors (i.e. owner or proprietor-generated content) and others (i.e. user-generated content). Currently, there is only a small body of formal publications about the use of social networking sites in archaeology and museums, which is surprising given their apparent ubiquity of use amongst individual academics and professionals as well as organisations and institutions.

A number of uses can be identified amongst museums in particular. Firstly, the value of social networking sites for marketing purposes, although not often discussed, is certainly a primary concern amongst many museums. Secondly, they may encourage conversations between institutional centres and individual users, as well as amongst individual users. For example, content provided by a museum on social networking sites (e.g. a photograph of an object accompanied with a biography of a collector; or a status update asking for users opinions on a particular subject) may elicit contributions from individual users (e.g. comments or the submission of personal photographs). This online content, and the dialogue that may follow, has been argued to reveal some of the contingencies of decision making in museums, and further, by opening up collections information to interpretation and discussion by others, question the authorised position of museums (e.g. Russo *et al.* 2008; Wong 2011). Thirdly, many museum professionals have argued that social networking sites allow for the collection of much supplementary information about collections (e.g. Gray *et al.* 2012; NMC 2010: 13–15). This has obvious advantages for the museum—if the information is curated or archived it provides useful supplementary information about the museum’s collections—but could also be argued to be a means of decentering the existing expertise surrounding particular collections. Finally, it has been asserted that the extent of use of social networking sites means that access to museums can be broadened by engaging traditionally non-visiting audiences, many of which include individuals who may not be able to physically travel to a museum (e.g. NMC 2011: 5).

McDavid's (2004) exploration of the democratic potentials of the internet for sustaining conversations around archaeology at the site of the Levi Jordan Plantation in Brazoria, Texas, can be considered a 'Web 1.0' precursor of the more recent uses of social networking sites by public archaeologists. This involved much 'offline' work, such as gathering oral histories, as well as 'online' work such as encouraging discussions on a website. McDavid (2004) argued that offline contexts of use are essential to consider, and particularly engaged with some of the inequalities involved in online participation (e.g. by running workshops to enable internet access). However, in more recent social networking site usage it is largely unstated and unclear how the use of online spaces intersects with offline work. Nevertheless, a number of community archaeology groups and associations have established social media presences. For example, the Florida Public Archaeology Network provides separate Twitter feeds for eight regions of Florida, which offer updates on archaeology events in each region. Similarly, the Burgage Earthworks project based at Southwell, Nottinghamshire, and the FenArch community archaeology group, which excavates in the Fenland of East Anglia, use Twitter alongside other social media platforms (such as blogs) to update followers on events and excavation progress. Some accounts have encouraged online publics to offer their own interpretations or commentaries about archaeology, or to ask questions of archaeologists. For instance, the Twitter and blog accounts of a research project on a nineteenth century manor house and its associated outbuildings and slave quarter, at Historic St. Mary's City, Maryland, provide updates on the research process, but also aim to make this process more transparent and encourage online publics to ask questions of the archaeologists (Brock 2012).

Wikis and open content

Comprising numerous linked editable pages, and often taking the form of a freely accessible encyclopaedia (e.g. Wikipedia, WikiArc), wikis allow individuals to edit, modify or delete the content on each page. Wikis can support collaboration between organisations and individuals, who may organise special interest groups to improve groups of pages around a certain topic. On Wikipedia, for instance, WikiProject Archaeology (2013) aims to

improve information on archaeological topics, whereas the GLAM-Wiki (2013) initiative encourages cultural heritage institutions to contribute content from their collections. In this way, it has been argued that wikis enable the co-construction of knowledge between traditional experts and others who may be able to contribute to a topic. However, it is not clear that participation in wikis extends beyond the involvement of academics, professionals and interested amateurs (e.g. Looseley and Roberto 2009). The ability of wikis to harbour egalitarian participation in archaeology and heritage has also been challenged by scholars who have demonstrated the emergence of structures of authority in online communities (e.g. O'Neil 2011; Sanger 2009).

The broader idea of 'open content' points towards some of the values of incorporating information drawn from museums and academic institutions into wikis. Open content is an emerging topic of concern within the GLAM (Galleries, Libraries, Archives and Museums) sector (as well as within archaeology; Kansa 2012), and debates centre on the ways in which collections information may be shared and re-used (e.g. by museums contributing content to Wikipedia, or by building databases with a range of interactive interfaces). For instance, the Smithsonian Cooper-Hewitt Museum has released around 60% of its collections data into the public domain with a Creative Commons Zero license, which permits all forms of reuse of information. The Rijksmuseum has also freely released information such as high-definition images of many of the objects in its collections, and allows programmers to build various applications using this information. The Rijksmuseum's own 'Rijkstudio' application offers, for example, the ability for online users to build personalised collections of objects and to share these with others via social networking sites. One of the primary advantages of open content initiatives is considered to be the new knowledge about collections that may return to museums through the various unanticipated responses to information circulated on the internet; it may serve to improve both the quality and quantity of resources around museum collections. Moreover, it is argued to result in widened opportunities for participation and to make the educational aims of museums more achievable (NMC 2012: 24–26). However, copyright and licensing issues and intellectual property rights make open content a topic of concern particularly

amongst museums with works of modern art (NMC 2012: 24–26) and with relation to collections drawn from politically marginalised communities (see Nicholas and Bannister 2004).

Crowdsourcing

The solicitation of user-generated content from small or large groups of online individuals is known as ‘crowdsourcing’. This is often intended to solve a defined problem; the aggregated result of contributions usually forms a body of knowledge or an ‘answer’ to a problem. Within the arts and humanities, crowdsourcing has usually demanded users to complete small tasks defined by a project proprietor. Such tasks have included: correcting errors in material provided by a project proprietor; transcription tasks; contributing rich content, such as oral histories or creative content, in response to an open call; and categorising, classifying or voting on material (see Dunn and Hedges 2012).

Within archaeology, crowdsourcing projects have recently emerged wherein project organisers often claim a vague range of public benefits alongside professional and academic benefits. For example, the Ur Crowdsourc (n.d.) project aims to transcribe the excavation records from the joint expedition of the British Museum and the University of Pennsylvania Museum which excavated Ur between 1922–34. It hopes to achieve this by encouraging individuals to complete small transcription tasks. The stated aim of the project is to produce data that can be utilised by researchers but also the general public. Similarly, the Atlas of Hillforts Project (n.d.), run by researchers from the Universities of Oxford and Edinburgh, encourages members of the public to help survey and document British hillforts. The aim is to produce an atlas that can be utilised by academics, students and the general public. It is unclear whether these vague discourses of public benefit (perhaps referring to educational benefits) are in fact realised, or whether resources simply accrue for the archaeologists.

Within museums and other cultural institutions, crowdsourcing projects have also been used for comparable ends, often to complete projects that a small group of researchers could not complete alone in a short time period. For example the Old Weather project run by the National Maritime Museum amongst other partners (Zooniverse

2012) seeks participants to help digitise weather observations drawn from the logs of British Royal Navy ships. Similarly, participants in the Australian Newspapers Digitisation Program complete a task that a computer cannot do: correcting text errors in Optical Character Recognition-scanned newspapers (Holley 2009). Tagging systems, which allow for individuals to add keywords to digital objects or webpages, have also been implemented by many museums. Keywords assigned to museums' collections information by individual internet users produce 'folksonomies': consensually-produced, bottom-up taxonomies (Weinberger 2005). Proponents argue that these better allow publics to easily explore online museum collections (e.g. Chan 2007), whilst also decentering the authority of traditional cultural experts to interpret and categorise information cultural heritage (e.g. Cairns 2013; Trant 2009).

The extent to which benefits accrue equitably amongst project proprietors and participants is unclear. The benefits for the project proprietors are often clearly stated, usually in terms of the knowledge gained for an institution. However, it is particularly unclear how projects affect individual participants. For instance, do they truly become co-creators of knowledge, and do they gain skills that may benefit them beyond the project? It may be considered that participants are already interested in a particular subject, possibly dedicated amateurs (Owens 2013). Thus crowdsourcing may not be about popular 'crowds' at all, and even less about benefiting those who are currently excluded from archaeology and heritage institutions. It may instead reinforce the status quo.

Targeted collaborative projects

Whilst most of the examples above largely represent more general efforts to engage various publics, a range of Web 2.0 platforms have been used in more targeted collaborative projects between museums and particular descendant communities. The digitisation of collections and the establishment of interactive databases and catalogues within particular museums have enabled many of these projects. The Reciprocal Research Network, for example, is an online portal developed by a partnership comprising the University of British Columbia Museum of Anthropology, the Musqueam Indian Band, the Stó:lō Tribal Council and the U'mista Cultural Society alongside

several other museums and institutions.⁷ The portal enables access to data contributed by the partners, which form an archive of about 400,000 objects representing material heritage from the Canadian Northwest Coast. The aim was to create a research tool enabling conversations and research collaborations amongst geographically dispersed individuals, and it was particularly focused upon integrating more diverse knowledge systems than those usually represented by cultural institutions. Individual participants are able to contribute content to the database, which is visible alongside the traditional museum catalogue information, and which is also fed back into the originating institutions' catalogues (see Iverson *et al.* 2008; Rowley *et al.* 2010).

A further example is 'Emergent Database: Emergent Diversity', which was a project run by the A:shiwi A:wan Museum and Heritage Center in Zuni, New Mexico, and the University of Cambridge Museum of Archaeology and Anthropology, intended to redress the marginalisation of Zuni views about archaeological artefacts excavated at Kechiba:wa in the 1920s (see Srinivasan *et al.* 2010). An epistemological challenge was identified since the narrative-based Zuni descriptions of objects were incommensurate with the discipline-based descriptions in the museum database. Digital objects were seen as an important focus for negotiating the various ways of knowing by different expert communities. An ultimate result of this project was the establishment of a relationship in which the A:shiwi A:wan Museum were afforded the ability to control aspects of the Cambridge database, such as the ability to add content (e.g. comments) to the collections database that the museum cannot alter.

Most collaborations focused on interactive databases have been related to broader repatriation efforts within museums, and thus have been characterised as a form of 'virtual repatriation'; they are considered to help achieve the various ends sought by physical repatriation, such as cultural or linguistic revival (e.g. Christen 2011; Ngata *et al.* 2012). Collaborative projects may also result in

⁷ The Royal British Columbia Museum; the Burke Museum; the University of British Columbia Laboratory of Archaeology; the Glenbow Museum; the Royal Ontario Museum; the Canadian Museum of Civilization; the McCord Museum; the National Museum of Natural History; the National Museum of the American Indian; the American Museum of Natural History; the Pitt-Rivers Museum; the University of Cambridge Museum of Archaeology and Anthropology.

the accrual of valuable resources for a museum, such as the new information that is returned to a museum, which can be incorporated into the permanent museum catalogue (e.g. Rowley *et al.* 2010; Srinivasan *et al.* 2009). A number of further concerns can also be raised, including: the longer appropriative and colonial histories of museums that may not be redressed by these projects (see Boast 2011); issues of incommensurable knowledge (e.g. Srinivasan *et al.* 2010); and the ethical and intellectual property issues involved in circulating digital objects (e.g. Brown and Nicholas 2012).

The impact of social media

It is unclear whether or not permanent effects are caused by the use of social media for cultural authorities like museums, related disciplines like archaeology, as well as extra-disciplinary communities. This situation has seemingly resulted from a lack of qualitative impact studies, a lack of engagement with critical research emerging from internet and new media studies, and, in some cases, the broader archaeology and museology literature. This is highly problematic given the number of social media projects currently being conducted within the heritage and museums sectors, which tend to claim that, more or less explicitly, social media can aid in challenging the authority to interpret the past traditionally held by archaeologists and museums. Quantitative measures are often useful for grounding discussions, but without thorough qualitative analysis, only speculative inferences about the breaking down of authority can be drawn. Thus, theoretically informed qualitative research is particularly required, for which many methodological options exist, including various kinds of discourse analysis and grounded theory (see Fielding *et al.* 2008).⁸ Such methods would aid in better assessing the impact of social media on the authority of a discipline and its institutions.

Here, three points of critical analysis are offered, pointing towards some of the potential barriers to achieving the more laudable aims of social media work: the factors that impact upon equitable access

⁸ For example, the author's forthcoming PhD thesis offers qualitative analyses of museums' use of social media, particularly focusing on the posited benefits of social media usage compared to the actual impact on their authority and on their online audiences.

to the internet; the transference of pre-existing authority to online spaces; and the inequitable accrual of resources.

Firstly, it is not evident that the internet enables a more equitable level of participation amongst different communities. Those previously marginalised from archaeology and museums may continue to be marginalised, whilst others might become newly marginalised. A comprehensive view of 'internet access' refers not only to physical access (e.g. Duggan and Brenner 2013), but also the kinds of motivations and skills that determine how effectively individuals use the internet, if at all (e.g. Correa 2010; Hargittai 2002; Selwyn 2006, 2010; van Deursen and van Dijk 2011). The proprietors of social media projects must address these issues to be able to claim that the authority over the interpretation of archaeology and heritage has been decentered. Yet, only a handful of researchers have considered the motivations of individuals engaging with online museum resources. Most have highlighted a pre-existing interest in a topic, which is problematic given the claims of broadening access (see Dunn and Hedges 2012; Russo and Peacock 2009; Trant 2009).

There are also less apparent ways in which pre-existing structures of authority (e.g. the traditional cultural authority of museums, and the disciplinary authority of archaeologists) are maintained. For example, some scholars have pointed towards the temporary impact that user-generated content actually has upon museum catalogues (e.g. Cameron 2008), which is likely due to a devaluing of most user-generated content, thus replicating in a digital environment the curatorial decisions traditionally made by museums. It is also not clear that diverse viewpoints are especially supported. The replication of pre-existing social inequalities has been evident on Wikipedia (e.g. Wadewitz 2013). Similarly, within tagging systems, minority viewpoints tend to be drowned out (Saab 2010). These observations challenge the claim that the internet enables shared authority between museums or archaeologists and extra-disciplinary communities.

Thirdly, it may be the case that cultural institutions accrue resources to an extent far greater than other communities. This is a concern that can be raised with especial reference to crowdsourcing projects, which do not provide clear benefits for

participants. The benefits provided for institutional centres include resources that can be incorporated into the permanent collections of museums, as well as data that individual researchers might be employed to study. Identifiable benefits provided for crowdsourcing participants are primarily related to pre-existing motivations (see Dunn and Hedges 2012; Owens 2013; Trant 2009: 37). It should also be borne in mind that Web 2.0 was originally championed in terms of its value for businesses (O'Reilly 2005). In this way, internet scholars are increasingly pointing towards the problems with the commercial nature of social media, particularly the issues surrounding inequitable or pernicious 'digital labour' practices (Scholz 2013; also see Hesmondhalgh 2010). This again suggests a reinforcement of the status quo, wherein those already interested and able to participate can do so whereas a broader range of people who are claimed to receive benefits through web-based projects may not actually receive those benefits.

Conclusions

Many archaeologists have questioned the authority they enjoy over the interpretation of the past by becoming cognizant of the socio-political, ethical and epistemological issues involved in interpreting the past (e.g. Colwell-Chanthaphonh *et al.* 2010; Edgeworth 2006; Smith 2004). Of particular concern, especially amongst community, feminist and Indigenous archaeologists, is the valuing of perspectives that traditionally have been marginalised and sharing the various benefits involved in interpreting the past (Conkey 2005; Silliman 2008; Wylie 2003, 2008). The ability to critically engage with 'non-archaeologists' may not be easy, and may involve the development of particular attitudes and interpersonal skills (Nicholas 2010; Silliman 2008). 'Offline' collaborative and community-based projects have had to respond to charges of tokenism, particularly questions about the long-term commitment of archaeological experts to the needs of a particular community and their willingness to help shift disciplinary norms (see Boast 2011; Nicholas *et al.* 2011; Smith 2006; Smith and Waterton 2009). Similarly, online work cannot be considered an easy or quick 'fix' to make archaeology more responsive to a broader public.

To date, social media projects in archaeology, heritage organisations and museums have not fully engaged with the various barriers that prevent equal participation amongst different communities. These include barriers to equal internet access as well as the less obvious structures of authority that may transfer to online environments. In addition, the extent to which benefits accrue fairly amongst institutional or disciplinary centres and other communities is far from clear. Archaeologists and other heritage or museum professionals involved in establishing social media projects should be encouraged to assert a more ethically-engaged and socio-politically-aware practice and, potentially, to commit to long-term relationships with various online communities. This will aid in preventing the continued marginalisation of some individuals or communities and newly marginalising others, and help to ward against the damaging effects of disciplinary authority and the inequitable accrual of benefits. Archaeologists should attempt to consciously challenge the barriers to effectively broadening participation through the use of social media, as well as analysing the actual impact of online archaeological work. A failure to do so will likely mean that much online public archaeology fails to resemble the positive rhetoric currently prevailing.

Acknowledgements

Many thanks go to Jennifer French, Katie Hall and an anonymous reviewer for their comments on an earlier draft of this article.

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