

Exploring Museum Crowdsourcing Projects Through Bourdieu's Lens

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Abstract: Museum crowdsourcing projects have drastically changed the ways in which individuals engage with cultural objects. In particular, individuals' participation in representation of cultural objects through creating, sharing, and curating museum cultural objects contributes to the creation of multifaceted and rich representation of cultural objects as well as transgression of institutional boundaries between cultural heritage institutions. Applying Bourdieu's (2010) conceptualization of cultural capital to museum crowdsourcing initiatives, this study suggests that cultural objects should be considered not only in relation to other objects, but also in relation to the social structure of the world and suggests that successful engagement with the crowd is

grounded on an understanding of engaged individuals' cultural capital and habitus. This approach will facilitate creation of not only multifaceted and multivalent representation of cultural objects but also ensure sustainable and meaningful engagement of individuals.

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1.0 Introduction

In 1917, John Cotton Dana, a well-known museum pioneer, published his seminal article, "The Gloom of the Museum," in which he called on museum professionals to reevaluate their notions of an exclusive museum patronage and develop new methods to reach out to a greater audience. Today, a hundred years later, Dana's call is still a challenge to museum professionals. Embracing diverse and multifaceted cultural and disciplinary approaches, today's museum professionals are not just curators and custodians, but as McLean (2004, 205) stated are, "first and foremost communicators, dedicated to sustaining the relationship and enriching the conversations between exhibition and visitor." This role was captured in Vergo's (1989) classic concept of a "new museology," which em-

phasized the need to shift professional focus from museum methods to museum purposes, suggesting that, at the core, museums are not just research, collection, and preservation institutions, but, more importantly, educational institutions. Accordingly, Srinivasan, Boast, Becvar, and Furner (2009, 667) characterize museums as cultural heritage institutions that transform "social practices through the transformation of the museum from the display of singular expert accounts to a site of diverse educational engagements."

To enhance representation, organization, and discoverability of cultural heritage expressions, such institutions as libraries, archives, and museums have been actively engaged in various crowdsourcing projects, defined by Howe (2006) as the act of taking work once performed within an institution and outsourcing it to the general

public through an open call. Further developing this characterization, Ridge (2014, 2) defines cultural heritage crowdsourcing projects as “projects [that] ask the public to undertake tasks that cannot be done automatically, in an environment where the activities, goals (or both) provide inherent rewards for participation, and where their participation contributes to a shared, significant goal or research interest.” Oomen and Aroyo (2011) suggest the following typology of cultural heritage institutions' crowdsourcing initiatives:

- 1) transcription and editing projects that utilize participants to edit and/or transcribe digitized artifacts;
- 2) contextualization initiatives that engage participants to contribute their experience and understanding of artifacts;
- 3) complementation of online exhibits and/or collections with participants' contributions;
- 4) creation of user-generated metadata for digitized collections;
- 5) co-curation initiatives that invite participants to curate web exhibits and collections; and,
- 6) crowdfunding projects that seek financial contributions to support new cultural heritage initiatives.

Museum scholars point out that the online collaboration and sharing of knowledge toward common goals involved in crowdsourcing projects offers museums valuable opportunities for truly deep connections with cultural heritage resources (e.g., Noordegraaf, Bartholomew, and Eveleigh 2014; Ridge 2014). For instance, Srinivasan, Boast, Furner and Becvar (2009, 268) contend that application of Internet technologies allows representation of museum objects as “more than illustrations, more than brief educational diagrams, [and] more than standardized edifying images.” Ridge (2013) argues that crowdsourcing projects provide a powerful platform for audiences to actively engage with museums. Owens (2013) suggests that crowdsourcing projects not only facilitate accessibility of digital collections, but also empowers participants as authors of our historical records. However, the literature to date lacks comprehensive critical analysis of museum crowdsourcing projects, making it difficult to systematically understand these processes and relationships.

In this study, we adopt the lens of Bourdieu's (2011; 2010) concepts of “cultural capital” and “habitus” to begin an investigation into crowdsourcing activities in museums. Bourdieu (2011) theorizes cultural capital as an accumulated, embodied form of capital, which is manifested in agents' competence in society's high-status culture. Bourdieu's empirical testing of the concept of cultural capital is based on consideration of individuals' habitus that is directly derived from the socioeconomic position in

which individuals are situated, representing individuals' unconscious internalization of their objective social conditions as well as their tastes and practices relevant to their social positions, which largely determine their cultural capital or social currency. As discussed below, Bourdieu's concepts provide insight into how individuals' particular habitus affects the quality as well as the overall integration of their contributions to the representation of museum objects. Through this lens, this paper aims to contribute to theoretical understanding of museum crowdsourcing projects as a way to enhance sustainable and meaningful engagement with and discoverability of museum heritage.

The first part of this paper synthesizes the theoretical and empirical literature, examining representation of museum cultural objects and museum crowdsourcing projects. In the following section of this paper, Bourdieu's concepts of cultural capital and habitus are discussed to provide in-depth understanding of the role of crowd in representation of museum objects.

2.0 Representation of museum objects through crowdsourcing

Parry (2007, 57), taking into consideration both tangible and in-tangible manifestations of museum collections, describes these collections as “discrete, contained units of human experience, identified and extracted in order to help substantiate (to evidence), record or define an individual or collective epistemology (system of knowledge) or ontology (sense of being).” There have been many studies proposed in the past few decades aimed at explaining the museum experience (e.g., Packer and Ballantyne 2016; Wood and Latham 2014; Packer 2008). For instance, Falk and Dierking (2016, 33) proposed the contextual model of learning of understanding the museum experience, which involves three overlapping spheres of experience, all threaded by time:

- Personal context, i.e., each museum visitor brings with her a unique background of prior experiences, interests, knowledge, motivations, beliefs, and values, about museum objects and the understanding of the museum as a societal institution;
- Sociocultural context, i.e., every museum experience is embedded within the larger socio-cultural context of museum as societal institutions and is mediated by micro sociocultural interaction with other agents;
- Physical context, i.e., physical setting, such as museum architecture, exhibition and objects, that individuals engage with; and
- Time, i.e., all museum experience occurs and change over time, therefore, understanding of the museum experience, requires consideration of time.

Representation of museum objects involves a range of what Star and Griesemer (1989, 387) describe, in relation to museum scientific objects, as diverse visions stemming from the intersection of participating social worlds. Their theoretical construct of “boundary objects” serves to explain how diverse groups of actors—researchers from various disciplines, amateurs and professional, functionaries and visionaries—balance the multifaceted nature of scientific objects and cooperate to represent these objects. Star and Griesemer (393) argue that scientific objects, being linked to several intersecting social worlds, can serve as an informational common ground as these objects are “plastic enough to adapt to local needs and constraints” of the various stakeholders engaged with them and, at the same time, these objects are “robust enough to maintain a common identity” across various environments. For Star and Griesemer, boundary objects are a basis for communication, cooperative work, and having and reaching mutual goals. Star and Griesemer (1989) define boundary objects as:

- Scientific objects, which inhabit several intersecting social worlds and fulfill the informational requirements of each of them;
- Objects plastic enough to adapt to local needs and constraints of several parties employing them yet robust enough to maintain a common identity across sites;
- Weakly structured in common use, but become robust in individual site use;
- Abstract or concrete;
- Possess different meanings in different social worlds but a structure common enough to more than one world to make them distinguishable.

Star and Griesemer (1989), identified four different types of boundary objects used at the Museum of Vertebrate Zoology they studied: repositories of things (such as “ordered piles of objects”), ideal types (such as diagram and atlas), coincident boundaries (i.e., objects with same boundaries but different contents, such as the creation of the state of California itself as a boundary object for workers at the museum), and standardized forms (such as application forms and other methods of standardizing work). In her most recent work, Star (2010), reflecting on the origin of a concept of boundary objects, points out that not all things are boundary objects. Star proposes to consider scale and scope in defining whether an object operates as a boundary object in a given condition. Star (2010, 601) points out that much of the use of the concept of boundary objects has focused on the aspect of “interpretive flexibility and has often mistaken or conflated this flexibility with the process of tackling back-and-forth be-

tween the ill-structured and well-structured aspects of the arrangements.” This might be particularly true for museum crowdsourcing projects that involve a quite diverse Internet population to represent museum cultural objects.

Like other cultural heritage institutions, museums have long been concerned with provision of comprehensive metadata to represent, organize, and make accessible the museums’ collection of cultural objects. Traditionally, representation and organization of museum collections have reflected museum specialists’ perspectives and museum disciplinary processes (Trant 2006). Along these lines, Macdonald (1998) argues that conception of museums as authorities has resulted in a dominant curatorial voice in representation of the museum objects. However, the rich, multifaceted, and interconnected nature of museum objects (Wood and Latham 2014), coupled with the limited ability of metadata standards (Smiraglia 2005) and norms to reflect the complexity of the cultural objects (Klavans, LaPlante, and Golbeck 2014), challenges the process of representation (De Vorse, Elson, Gregorev, and Hansen 2006). Accordingly, Trant (2006) states that traditional systems of representation of museum objects are not necessarily comprehensive and comprehensible. For example, representative characteristics of an artifact a viewer might deem exceptional might be all together excluded from the traditional representation or metadata of the artifact (Trant 2006). Baca, Coburn, and Hubbard (2007) point out that as controlled vocabularies for representation of cultural objects are generally created for a particular audience, such as museum visitors, “re-purposing” the representation of the cultural objects for diverse online environments further challenges the process of metadata creation. In this regard, Jørgensen (2004, 462, emphasis in original) suggests to reconsider the traditional approach to representation of cultural heritage, arguing that:

a revolutionary reconceptualization of practice which provides flexibility in the concept of the locus of authority in the description of documents could not only offer hope for tangible solutions to these problems of description, but could facilitate the creation of *new* knowledge from these documents and empower communities who heretofore have been limited, for a variety of reasons, from participating in and contributing to intellectual understanding and the growth of knowledge.

Moreover, traditions of development standards for representation and organization of museum heterogeneous objects as well as consortia forming for data sharing and managing among museum institutions are relatively weak compared with the experience of libraries (Srinivasan, Boast, Furner and Becvar 2009).

In recent years, museums have embraced internet technologies, in particular Web 2.0 tools, to increase accessibility of museum collections, expand museum services, and, most importantly, include individuals' voices in the representation and organization of the cultural heritage resources through crowdsourcing projects (Ridge 2013). Museums' online galleries have provided interactive avenues for viewers to engage with the museum collections, thus, moving from univocal to multivocal and multivalent representation of cultural heritage (Holley 2010; Owens 2013). Such projects can range from users tagging of objects to generation of exhibition contents. As examples of such practices, the Powerhouse Museum (<https://maas.museum/powerhouse-museum/>) provides options to tag museum objects, the Smithsonian American Art Museum (<http://americanart.si.edu/exhibitions/online/day/>) allows viewers to provide comments, the British museum (<http://britishmuseum.libsyn.com>) provides podcasting, and the Oakland Museum of California (<http://museumca.org>) has created user-generated exhibitions. Parry (2007) argues that Internet technologies encourage various interpretations of cultural objects and liberate objects from the "one-size-fits-all" of predefined frames of representation and organization. Crowdsourcing projects also allow for enhancement of services for visitors with special needs, such as the Access American Stories app offered at the Smithsonian National Museum of American History (<http://americanhistory.si.edu>) which uses a visitor's smart phone to crowdsource verbal descriptions of American Stories exhibition objects to make these resources more accessible to visitors with visual impairments (Davis 2013).

A number of museum crowdsourcing studies have analyzed the potentials of user-generated tags for multifaceted representation of cultural objects (e.g., Chae et al. 2016; Trant and Wyman 2006; and Trant 2009). For example, Trant's (2006) analysis of The Metropolitan Museum of Art experimental social tagging project revealed that users were able to identify content elements in cultural objects that were not described in formal museum metadata and assign tags, most of which were validated by professional museum cataloguers. In contrast, an experimental study by Srinivasan, Boast, Becvar and Furner (2009) of an online museum catalog interface that included social tagging and blogging features, revealed that merely adding these features to a traditional catalogue does not necessarily help users to learn about and/or engage with the cultural objects represented in the catalog. The authors argue (666) that due to lack of the context and limited language for representation of museum objects, there is need for "more nuanced application of Web 2.0 technologies with museums," in particular, provision of a contextual basis that would help users to "make

sense of objects in relation to their own needs, uses, and understandings" is still needed. Furthermore, Srinivasan, Boast, Furner and Becvar's 2009 study of indigenous museum projects suggests that adaptation of technologies should be grounded on a strong collaboration with the indigenous communities to ensure that both "expert" and "source" community voices are reflected in representation of the historical, cultural, and social significance of indigenous cultural heritage. They also suggest that archaeologists, cultural preservationists, curators, and, critically, indigenous people must all interact to influence the selection, acquisition, classification, and presentation of an object. Cultural objects are gateways to cultural heritage and history, and, most importantly, the personal and communal stories behind the cultural objects, which require the strong engagement of communities and cooperation among various actors.

Crowdsourcing research (Kittur 2013) suggests that major challenges to the success of collaboration between cultural heritage professionals and volunteers include finding knowledgeable and loyal volunteers and maintaining a reasonable level of quality work produced. In order to overcome these challenges, museum studies (Noordegraaf, Bartholomew, and Eveleigh 2014; Holley 2010) concerned with sustainability of crowdsourcing projects have recently proposed taking into consideration such issues as availability of human and financial resources for designing, managing, and providing training for participants, and evaluating crowdsourcing initiatives. However, in spite of overwhelming agreement on the necessity of multivocal representation and organization of museum collections, the actual shift to such a pluralistic approach to representation of museum collections has yet come. In this vein, Srinivasan, Boast, Becvar and Furner (2009, 667) argue that while the extension of the "new museology" into museums has introduced diverse educational programs and voices of various experts and authorities, "rarely do these voices pass beyond a local and temporary educational performance, and rarely are they recorded in an enduring way in the museum's catalog." Moreover, technological innovations have hardly affected the traditional museum representation and organization of cultural objects, which remains the business of a "small, select group of 'expert' contributors." Perhaps, a good example of this stasis is the fate of the highly-rated Steve museum project, established to improve access to museum collections through user-generated tags, which after few years of operation is not currently accessible (<http://www.steve.museum>), leaving such questions as whether and/or how participating museums utilized the user-generated tags. Overall, while the openness and accessibility of crowdsourcing projects are plausible, there is a lack of persistent and cross-institutional projects and platforms that not only represent museum objects, but also in-

terrogate the deep impact of meaningful and sustainable engagement through multifaceted representation of cultural heritage through by all interested parties, including professionals and amateur experts. Oomen and Aroyo (2011) argue that the future of cultural heritage institutions is grounded on an open, connected, and smart infrastructure, wherein “open” implies shared and accessible data; “connected” implies utilization of semantic web technologies and the use of linked data for interoperable infrastructure; and “smart” implies effective use of knowledge and web technologies to provide relevant contextualized information to the users. However, utilization of Internet technologies that aim to enhance representation of cultural objects as well as improve sustainable and meaningful interaction of diverse population of viewers with cultural objects should be transparent and “understandable” to all interested parties both in terms of provision of sources and harvesting techniques behind the presented data. In this vein, Hartig (2009) argues that due to the openness of the Web little is known about who created the data and how it was created. As a large amount of the data is derived by replication, query processing, modification, and/or merging, to ensure quality and trustworthiness of the data, the analysis of provenance of information is needed (Hartig 2009).

Most importantly, to promote sustainable and multivocal representation of cultural objects as well as meaningful interaction of diverse viewers with the museum cultural objects, individuals' socioeconomic positions or habitus should be considered. Therefore, this study seeks a theoretical understanding of cultural heritage crowdsourcing projects to enrich representation, organization, and access to museum cultural objects by applying Bourdieu's concept (2010) of cultural capital and habitus.

3.0 Understanding crowdsourcing through Bourdieu's lens

Bourdieu (2011) utilizes the concept of capital to understand the structure and functioning of the social world. He (2011, 81) theorizes capital as an accumulated, materialized form of labor, which, once appropriated by agents in its materialized or embodied form, empowers agents to “appropriate social energy in the form of reified or living labor.” In Bourdieu's terms, capital is a “force” that is “inscribed in objective and subjective structures” and is an underlying principle of the inherited orderliness of the social world. Bourdieu (2011, 82) conceptualizes three forms of capital: 1) economic capital, which can be immediately and directly convertible into money and institutionalized as property rights; 2) social capital, which comprises social obligations or connections that can be convertible in certain conditions and institutionalized such as in a title of

nobility; and, 3) cultural capital, which, in certain conditions, can be convertible into economic capital and institutionalized as educational or otherwise certifiable qualifications.

To exemplify his concept of cultural capital, Bourdieu (2010, xxiv) quotes a line in a medieval play in which a teacher suggests that the knowledge pupils acquire through schooling is an “intellectual stock in trade” that they possess as “if it were a house, or money.” For Bourdieu (2011), cultural capital can be valued as much as economic forms of capital and, most importantly, can be inherited and converted interchangeably with economic capital. He (82) further breaks down his concept of cultural capital into three forms: embodied, objectified, and institutionalized. Bourdieu conceptualizes the embodied form of cultural capital as a long-lasting disposition of the mind and body that signifies the agent's ability to understand and appreciate the cultural objects and production. In online environments, the embodied form of cultural capital denotes one's perception of nature, norms, values, and functionalities of the online environment (Lawton 2005). The objectified form of cultural capital signifies artifacts of cultural value that are in the form of cultural goods that can be obtained or owned, such as pictures, books, instruments, and machines, and that can be obtained or owned (Bourdieu 2011). In an online environment, the objectified form of cultural capital can be defined as visual or textual content that is created or shared by agents (Lawton 2005). And, finally, institutionalized cultural capital is in the form of academic qualifications or other credentials that are earned through recognized procedures (Bourdieu 2011), which can also be operationalized as an agent's status or role in a given online community (Lawton 2005).

Bourdieu's conceptualization of the consumption of works of art as cultural goods is relevant to the role of museums, art galleries, and universities (in his terms, institutions of legitimation). In particular, in the evaluation and classification of cultural works, the differentiation between cultural works that are canonized as “art” and those relegated to lower status. Through bringing to attention the fact that there is no one legitimate way of consumption of canonized works of art, Bourdieu (2010, 225) highlights the social nature of the mechanism of valuing and appropriating of works of art:

Works of art ..., all objectified cultural capital, ..., present themselves as an autonomous world which, although it is the product of historical action, has its own laws, transcending individual wills, and remains irreducible to what each agent or even the whole population of agents can appropriate ..., just as the language objectified in dictionaries and grammars

remains irreducible to the language really appropriated, that is, to what is internalized by each speaker or even the whole population.

For Bourdieu, what is most important is that culture has broad anthropological meaning that goes beyond its standard and constrained connotations. From this perspective, Bourdieu (2010, 228) utilizes the concept of “taste” or “manifested preferences,” arguing that:

a cultural product – an avant-garde picture, a political manifesto, a newspaper—is a constituted taste, a taste which has been from the vague semi-existence of half-formulated or unformulated experience, implicit or even unconscious desire, to the full reality of the finished product, by a process of objectification which, in present circumstances, is almost always the work of professionals.

Bourdieu (2010, 228) conceptualizes taste as a classification system which is “constituted by the conditionings associated with a condition situated in a determinate position in the structure of different conditions, [which] governs the relationship with objectified capital.” Thus, seen through Bourdieu’s lens, agents who have a particular taste in art will have similar kinds of taste in other cultural and/or symbolic commodities and practices, such as food, music, film, literature, fashion, and so on. That is, Bourdieu argues that commonalities of taste across various forms of symbolic practices underlie social class identification and divisions among social groups. Bourdieu’s theorization of taste is the underlying principle of his notion of “habitus” and “field,” developed to overcome the standoff of subjectivism, i.e., explanation of the social world primarily through individual experience and perceptions, and objectivism, i.e., objective conditions that structure practice independent of agent realization. For Bourdieu (1990, 135), neither subjectivism nor objectivism accounts for, in his terms, “objectivity of the subjective.” In particular, subjectivism does not take into account the social nature of an agent’s consciousness, whereas, in contrast, objectivism fails to recognize the extent of the influence of an agent’s perception of the social world on the social reality. As an alternative to the conceptualization of subjective vs. objective, Bourdieu (2010, 166) introduces the concept of habitus, that is the, relationship between “the capacity to produce classifiable practices and works, and the capacity to differentiate and appreciate these practices and products (taste), the represented social world, i.e., the space of lifestyles, is constituted.” Bourdieu considers the habitus as not only a “structuring structure, which organizes practices and the perception of practices,” but also “the prin-

ciple of division into logical classes which organizes the perception of the social world [and] is itself the product of internalization of the division into social classes.”

Bourdieu (2010) further applied his theoretical construct of habitus to an empirical study of the relationship between taste and class through survey and qualitative interviews in 1960s (1963 and 1967-1968) France. His study aimed to find how participants’ tastes or cultivated dispositions and cultural competencies were revealed through their ways of consumption of cultural goods and in variations based on the social status of agents and the areas to which they attended, such as painting or music as well as more personal categories, such as clothing and furniture; and, within the legitimated domains, such as academic qualifications, i.e., academic or non-academic. Bourdieu’s analysis reveals the very close relationship between cultural practices and educational capital (measured by qualification) as well as to the social origin. Even though critics of the Bourdieu’s work emphasize the French centrism of his research, his findings echo a large corpus of work in other domains highlighting the effects of culture and education on perception and use of objects (e.g., Hofstede and Bond 1988).

For Bourdieu, agents do not act in isolation, but rather in the world of objective social relations that are independent of individual consciousness (Bourdieu and Wacquant 1992). Bourdieu’s concept of “field” accounts for the context in which agents’ social relations or positions are governed. Bourdieu and Wacquant (1992, 97) argue that field is a “network, or a configuration, of objective relations between positions,” wherein positions are (Bourdieu and Wacquant 1992, 97):

objectively defined, in their existence and in the determinations they impose upon their occupants, agents or institutions, by their present and potential situations (*situs*) in the structure of the distribution of species of power (or capital) whose possession commands access to the specific profits that are at stake in field.

Bourdieu’s theory of the field of cultural production entails the position that material and symbolic production of cultural work involves various intermediaries that contribute to the process of understanding or making sense of it. Therefore, reception of cultural work implies a consideration of those who were engaged and had power in the representation of cultural objects at different stages. Based on Bourdieu’s conceptualization of cultural production, understanding and appreciation of the aesthetic of cultural work is not equally shared but accumulated as a form of cultural capital and represent individuals’ educational and socioeconomic dispositions or taste.

Taking the multifaceted nature of the cultural objects into account, comprehension of cultural work is directly related to individuals' cultural capital.

The implication of Bourdieu's theory of cultural capital, habitus, and field for museum crowdsourcing projects is that any form of engagement of individuals or "crowd" should involve consideration of the individuals' cultural capital and habitus. As agents are not isolated, but rather operate in the world of objective social relations that are independent of individual consciousness (Bourdieu and Wacquant, 1992), representation of a cultural object should be grounded on Bourdieu's concept of "field," which accounts for the context in which agents' social relations or positions are governed. This approach would help to avoid misconceptions regarding the universality of cultural practices and ensure quality and sustainability of crowd engagement. Moreover, this approach would allow for comprehensive critical assessment of museum crowdsourcing projects to systematically understand the processes and relationships desirable for the success of individuals' engagement. For example, consideration of native population worldview in representation of indigenous culture would not only enhance quality of representation but also foster harmony and cohesion of different worldviews. For instance, for an indigenous Hawaiian viewer, a hula dancer is seen as a sacred celebration in which every movement symbolizes "connectedness to the text, to the context of a performance, and to the layers of symbolism that attend it, among a host of other factors" (Rowe 2008, 41), and lack of understanding and acceptance of this worldview would result in a limited and biased depiction of Hawaiian culture.

4.0 Conclusion

The application of Internet technologies to improve and enhance access to museum collections and services seems to hover at the edge of principal systems of representation and organization of the museums' collections. While even limited online access to the museum collections allows users to engage with the collections as well as contribute to representation of cultural objects through creating, sharing metadata, and curating the online museum collections, the users' contributions are rarely fully integrated into the core systems of representation and organization of museum collections. True access to museum cultural objects implies that museums not only serve as nodes in a network of interconnected objects, information, places and people, but also fully utilize the capabilities of the Internet technologies to transgress the institutional boundaries in the online environment where new collections are being created (Navarrete and Mackenzie Owen

2016, 121). Applying Bourdieu's (2011) conceptualization of cultural capital to museum crowdsourcing initiatives, this study argues that the successful engagement with the crowd is grounded on understanding the cultural capital and habitus of engaged users. This paper suggests that this approach will facilitate creation of not only multifaceted and multivalent representation of cultural objects, but also ensure the sustainable and meaningful engagement of the participants.

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