

In Focus

Reuse and Appropriation: Remediating Digital Museum Collections and Digital Tools for a Participatory Culture in Transition



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ABSTRACT

Museums have always used different media to communicate, widen perspectives and bring new knowledge, but in the era of digital media, their various offerings are increasingly part of the media ecosystem. Our research interventions explored the possibility of reusing existing digitised material in a participatory setting. The aim was to explore the object-centred audience participatory method in digital settings. We held a series of digital and in-person workshops that invited the participants to “imagine” narratives about the provenance of the museum’s objects and journeys to Sweden in a playful and creative exploration. We could observe how the virtual workshop setting supported focused discussions, and allowed zooming, drawing and remixing of digital photographs to facilitate conversation. The workshop participants on-site worked with the museum objects on display to remediate them through photos, drawings, clay modelling, and writing down thoughts and questions about the objects on discussion postcards. The participants’ contributions were included in the virtual collection database (Carlotta), under the same collection as the other museum objects, making the remediation process circular. We argue that object-centred methods enable audience participation in digital media ecosystems both in museums and with other media makers.

The audience’s expectations and experiences from using other media bring them to the digital museum platforms with a willingness to explore, remix and integrate.

KEYWORDS: Museum objects, Audience engagement, Digital workshop, Remediation, Contact zone

INTRODUCTION

Museums have always used different media to communicate, widen perspectives and bring new knowledge, but in the era of digital media, their various offerings are increasingly part of the media ecosystem. Museums communicate via exhibitions, posters, books, catalogues etc, but they also make websites, interact on social media and set up and maintain databases of digital cultural artefacts. As the digital media landscape becomes more stable with established conventions, platforms and channels of communication, museums become media actors and makers through their digital content. They, thus, become part of the new media participatory cultures where audiences expect certain channels of creative expression, participation, and engagement with digitally-born or remediated content.

In 2002, the DIGICULT report from the European Commission stressed the importance of implementing information and communication technologies in the organisational practices of museums as a useful way to unlock the value of cultural heritage (European Commission 2002). This propelled large investments in the digitalisation of cultural materials; a large-scale cross-sectoral remediation effort. The key challenge has been the integration of the digital museum collections, which are treasure-troves of cultural materials in the participatory, new media culture. Parry's perspective that museums are a medium – a unique, three-dimensional, multi-sensory social medium with a spatial form (2007:11) highlights that, while physicality and materiality are important components of museum media, the digital elements are central parts of museums both online and on-site. Today, museums rely on both physical and digital components. The physical space of the exhibition, the materiality of their collections, and the digital representation of these collection objects alongside their meta-data are integral parts of the museum as a modern-day institution.

Digital museum collections are contested spaces of authenticity, remediation,

ownership and authority¹. In the fight for continuous societal relevance, museums have embraced the digital space as a location for audience participation but often kept it separate from their collections, which for many are the true core of museums. Distinguishing community engagement, audience participation and educational activities from the work with collections can open playful interactions for the audiences but often a minor impact on the other parts of the museum. An example here could be the famous *Rijksstudio* by the Dutch national museum, Rijksmuseum, which invites the public to discover their masterpieces but at the same time manages to keep the participants in the “third space”, away from the main collections. Thus, the challenge of the digital museum is to figure out ways in which the remediated digital collections could become spaces for audience participation.

With the global COVID-19 pandemic limiting audience engagement in museum work through physical interactions, it allowed us to experiment with the remediated digital collections and to attempt to bring them to the centre stage for audience participation. The limited access to the museums foregrounded digital interactions and increased the interest and willingness of both museums and audiences to use digital collections as participatory spaces. This article investigates the methods of inclusion and audience participation at the intersection of the digital and material dimensions of museums. By focusing our audience engagement around the digitally remediated museum objects, we introduce the Method of the Thing as a participatory tool and argue that object-centred methods enable audience participation in digital media ecosystems both in museums and with other media makers.

As a research group at Malmö University, with a shared interest in audience development and digitalisation of muse-

1 For example, one of the questions on ownership and authority is the current debate on digital repatriation of museum objects. See (Bell *et al.* 2013; Boast and Enoté 2012; Maurer 2021)

ums, we have had an ongoing collaboration around the Method of the Thing, an object-focused participatory experimentation approach (Huseby, Treimo 2018), which was employed as part of our work with Malmö museums on their 2020 exhibition “Sailor Souvenirs”. Specifically, we focused on objects from Malmö museums’ digitised seafarer’s collection, photographed and archived in the virtual collection database *Carlotta*.

We begin by introducing how the digital participatory methods of today are encouraging a new kind of audience participation. From there, we discuss the idea of digital materiality and how it can affect the meaning of and interactions with museum objects. The exhibition also came with its own set of constraints due to the nature of the objects and the historical data attached to them, but also because of the current COVID-19 pandemic and what it meant for our workshops and the exhibition. Having fully embraced the new digital normality, we held four digital workshops based on a collection of the exhibition objects and one on-site workshop. Digital and analogue workshops afforded diverse audience interaction and the remediation ties together the interactions and the objects within the museum collection. With our findings, we were able to explore potential future scenarios that could be considered around the use of digital participatory culture and how that might alter the balance and the structure of museums and their audiences.

AUDIENCES PARTICIPATING DIGITALLY

Museums as media producers have traditionally operated through the communication praxis of the transmission model which views information transfer as a linear process going from one authoritative source (the museum) to a less authoritative receiver (the visitor) (Hooper-Greenhill 2000: 15). In this regard, the role of the museum is simply to enlighten, to educate and lay out information in such a way that visitors could easily absorb it. Such an authoritative approach left no space for

the visitors’ contribution and participation. In recent years, however, we have seen a change in thinking as museums move from a collection-centred practice to embrace a more audience-centred approach (Pruulmann-Vengerfeldt 2014; Drotner et al. 2018; Noy 2016). This move has not always sat well with the museum community as the didactic and authoritative way of communicating has been perceived to allow a closer focus on museum collections and has created tensions between the audience-faced museum and the collection-centric museum.

Yet, such a division can be overcome when audience participation is centred around media content - in our case, museum collection and objects. We draw on Carpentier, who defines content-related participation in the public sphere as occasions in which laypeople are involved in a mediated production of meaning that is recognised by all parties involved as produced by laypeople for the public sphere (2009: 309). As Simon (2010) posits, this kind of “participatory museum” recognises the institution, the participants and the audience as equally important and relevant agents. In media studies, a similar approach has been advocated by Jenkins, Ito and Boyd (2015), in which participatory cultures foreground how participants, the content they have created, institutions and general audiences are part of digitally mediated participatory cultures.

Within the specific case of heritage institutions, Kidd (2014) has argued that museums are transmedia entities occupying multiple platforms through storytelling. However, it can be argued that the ambition to make culture available via digital screens comes with challenges from both institutions and individual audience members. For instance, by implementing digital technologies, there is an expectation that museums can play a significant role in widening access to their cultural heritage beyond national borders and cultural landscapes (Hogsden and Poulter 2012: 268). Making museum collections available online, although commendable, still places

the audience in the position of a passive recipient of top-down interventionism, which as Watson and Waterton (2010: 84) note, reinforces producer-consumer dynamics and the reading of heritage as a narrative of identity, politics and power. The argument is that these choices do not truly yield democracy and inclusiveness as power remains centralised within the institution and participation becomes a vehicle for the reform of the visitor. Robinson (2020: 484) calls this “the paradox and tyranny of participation”, in the sense that the democratisation agenda becomes merely rhetorical since the promise of shared authority is constrained by a set of social outcomes determined solely by the museum.

A similar discussion has been ongoing in media studies, where participatory culture is seen as a utopian ideal, to be aspired to, but is often never really reached (Jenkins and Carpentier 2013). Discussions about participation take on a normative-critical perspective, in which we need to distinguish between the social practices that are just labelled participatory and the practices that can challenge power (*ibid.*). The critical voices see participatory culture as constrained to tokenistic social practices with no real impact, and both institutions and audiences need to keep the focus on the participatory ideal. The audience engagement in journalism, for instance, is characterised by the mismatch of conceptual and operational definitions (Ferrer-Conill, Tandoc 2018), and the extent to which audiences have power in newsroom decisions is varied.

Despite the confusion of definitions and challenges of operationalisation, the increased access to digital museum collections has allowed the process of heritage interpretation to become more democratised and polyvocal than didactic exhibitions, and therefore less dependent on the expertise and institutional structures (Taylor, Gibson 2017: 412). Museums are finding their space within the larger media ecosystem, and the audiences who engage with the digital collections do so in part with expectations and practices formed by con-

temporary digital media cultures. We propose that a museum object is a great entry-way to work with an audience’s expectations to creatively share, remix, and create, and that the object-centred engagement and participation also offers lessons to other media industries.

DIGITAL MATERIALITY AND REMEDIATING MUSEUM OBJECTS

Any process of digitalisation entails the transformation of an object (a creation or a product) into another form for documentation or archiving purposes, or to provide a different mode of consumption or for an exhibition. Such a transformation is not neutral or free from any sociocultural contexts or from the affordances of mediation (Hjarvard 2013; Cameron, Kenderdine 2010). At the same time, the contemporary digital media culture in which museums operate requires a different analytic view of how processes of mediation function, and how a process of remediation (Bolter, Grusin 1999) is at the heart of transforming museum objects into digital media objects. Remediation is not a concept to describe how one medium supersedes another; instead, it seeks to foreground the intricate ways in which media practices borrow and refashion practices from each other. In the cultural heritage domain, earlier media forms such as photographs, films, and documents are increasingly digitised, while the documentation associated with physical objects (for instance digital photographs) are transformed into digital media objects and gathered into digital collections and archives that are then made available on the web.

The core role of museums in society is based on the material objects in their collections, which extends to the digital versions made available to the wider population. The photographed and digitised archives of any museum can serve as a resource for digital exhibitions or as an online archive for anyone to use, which in turn offers the possibility to display more objects than a physical place allows. The digital assets that are created become

part of a larger digital media landscape, appearing on aggregate sites or portals (Europeana and Google Arts & Culture, for instance), or they are shared via social media accounts that provide new channels of communication, display, and audience connection. It has become commonplace for museums to use the digital portions of their collections as part of an extended museum visit, for instance by providing a pre- or post-visit experience, or indeed in some cases replacing a visit altogether (Marty 2007).

In their digital work, museums are engaging with processes of remediation, in which objects are transposed from one form to another, for preservation, documentation, or display and exhibition material. Digital objects act as media enabling polyvocality, or, as Latour observes, “instead of being mere intermediaries they have become mediators” (1996 cited in Hogsden, Poulter 2012: 278). Thus, digital objects allow us to think in a global sense through different nodes of networks. The challenge, however, lies in liberating the object from traditional notions of materiality and hierarchical systems of values, such as those operating in many museums, in which the digital object occupies a lower status. For instance, as Meehan (2020: 7) observes, visitors who perceive the effects of ageing on physical objects deem those marks to be proof of authenticity. A digitised photograph of an object may or may not foreground such details but will be viewed as secondary to the object itself. What we highlight in this article is that rather than viewing digital objects as secondary in audience experience, they can be activated to serve as gateways into discussions about cultural heritage and beyond. We agree with Hogsden and Poulter in that “objects themselves can act as contact zones” (2012: 270), and that in museums, the digital and physical forms are references to each other and have limitless capacity to support participation. It is thus central to critically examine the processes of remediation and digitalisation of the objects as part of working with audiences.

The COVID-19 pandemic and the ensuing effects and restrictions put a spotlight on all things digital: activities of all kinds were moved online. The digital archives and the digital presence of museums in the diverse media ecosystems became the only entry point for visitors when restrictions forced museums to close. The question of how to activate audiences through digital offerings was already a concern for some groups of professionals in the museum sector, such as museum pedagogues and marketing departments. With the Covid-19 pandemic, it became a shared concern. For our project, the online context meant understanding how to layer different digital services and media objects (such as photographs from the digital archives) into a digital experience that could facilitate the museum experience and function as meaningful context for the workshop as well as support our tasks in facilitation and documentation.

THE EXHIBITION AND ITS CONSTRAINTS

Malmö's history is shaped by the city's port, shipyards and shipping industry. This is reflected in the Sailor Souvenirs exhibition, which highlighted the social and cultural impact of seafaring for Malmö museums. It presented a collection of 194 objects, ranging from ethnographic objects to souvenirs and crafts made by people working at or by the sea. The exhibition was housed in the Science and Maritime Museum where it opened in September 2020 and was one of five independent exhibition sections on the shared theme of “Sailor Souvenirs”. There were film screens, wooden ship models, excerpts from audio documentaries, and ship models in lit showcases. The Sailor Souvenirs exhibition combined objects from two collections of objects: The original Sailor Souvenirs collection (souvenirs, maritime handicrafts and mementoes) and the ethnographic collection. The ethnographic collection provided objects from various parts of the world that were brought back to Malmö by people working at sea. Because objects have often been part of larger

donations to the museum, given after the death of the owners, the individual souvenirs, therefore, often also have a limited provenance, meta-data, and stories attached to them. In regard to the Sailor Souvenirs exhibition, a significant “void” in the information provided is why the objects were brought home in the first place, and how and why the owners once acquired them. From this perspective, the Sailor souvenirs have lost their status as “souvenirs” since the personal histories around them cannot be retrieved anymore. Many background stories for these objects were missing - and the lack of precise information opened a space for audience members to fantasise or make conjectures about their provenance. In the exhibition hall, the Sailor Souvenirs were presented mostly in horizontal showcases. A few items were in elevated plexiglass displayed on top of square tables with benches around, allowing the visitors to sit down around an object to observe, discuss or draw it. This design was specifically intended for workshops and seminars in the exhibition space, as part of the Method of the Thing project.

Malmö museums, together with a handful of Scandinavian museums, is involved in an R&D project that explores new methods for creating dynamic exhibitions, opening this process to experts from different fields and new groups of audiences (Berg 2021). At the core of the R&D project is the Method of the Thing, inspired by Bruno Latour’s work, in which museums look at their objects both as “things” as well as points for assembly (based on the word “ting” having two different meanings in Scandinavian languages). Within this work, the focus is on the question, how can a museum object become a core of a gathering of participatory explorations for audience work? (Huseby, Treimo 2018). The Sailor Souvenirs exhibition is part of this project and a testbed for developing new methods of audience involvement in museum work. In the method of the thing, the museum objects are at the centre, and the aim is for the objects to “call for” the people that have a relation to them and can

help shed light on the many relational networks of which the objects are a part.

Malmö museums use an information system developed specifically for museums and their collections, called *Carlotta*. It is not only their main collection management environment but it also developed an online presence and became the main resource for audiences to find objects and their limited available information. Online, the archive becomes part of a cultural heritage digital ecosystem with photographs and documents about objects that exist in the museum’s exhibitions and warehouses. The *Carlotta* database becomes a place of “double remediation”. On the one hand, the database has a digital image of the museum item: a material object is transformed into a flat image. On the other hand, the musealisation of the object itself relates to the removal of the original context of use. The museum objects have thus been transformed from things that are used, or that have rich and nuanced contexts in their original habitats, to museum objects that have limited amounts of associated meta-data.

The digital remediation of museum objects in the *Carlotta* database became integrated into our workshops both online and onsite. Its main purpose is to perform the “backstage” work of organising and managing museum collections, but as the museum explores new digital formats for participation, the database can take on an expanded role as a richer interface to the museum for digital audiences. We integrated excerpts from *Carlotta* as part of the on-site and online workshop material, thus pushing the information to the fore, positioning the digital warehouse as the museum’s face to the world. This secondary use of *Carlotta* highlighted some issues that became both enabling and limiting for audience participation. As the database is only as complete as the museum’s collected meta-data, the system also contains empty or limited fields of information. In our workshops, these empty fields in the records became productive in themselves, since they allowed for participants to invent or fantasise about new stories or

relationships. At the same time, the authoritative structure of the information in *Carlotta* can also limit audience participation as it sometimes does not fit the existing categories of record keeping.

PARTICIPATORY WORKSHOPS TO EXPLORE MUSEUM OBJECTS

Initially, a series of joint workshops were planned to explore the participatory potential of the method of the thing where we could engage regular, non-expert audience participants, but due to the COVID-19 pandemic, we had to reconsider the very nature of our workshops. To find an alternative, we ended up organising a series of digital workshops that were held in parallel with the development of the exhibition, independent of each other. After the opening of the exhibition, researchers and museum pedagogues extended the creative explorations and created a concept for family-oriented activities in the exhibition hall to be held during the autumn school break. We succeeded in having the audience participate and engage with the objects over two days before the museum was forced to close due to the rising COVID-19 infections in the country.

To assess a hybrid methodology that would allow us to combine physical objects with digital tools and to experiment with the Method of the Thing concept in a digital workshop format, we did two types of activities. We started with four digital workshops with invited groups. In the digital workshops, the criteria for choosing the participants were based on convenience and on having participants that we knew would be comfortable with technical tools, such as Zoom and Google's Jamboard. In total, we held four digital workshops with four distinct groups of participants as detailed in the table below. Each of the workshops was facilitated by one of the researchers (**Table 1**). There were no participants from the museum, but a summary of the workshops was presented to the museum staff.

Choice of objects for the workshop

Choosing objects for both the workshop and the accompanying exhibition was a process with many steps which led to the final selection of twelve objects from the sailor souvenirs collection.

We also tried to consider what would elicit the most curiosity from our participants and initially we also aimed to include

Workshop	Facilitator	Acronym	Participants	Age group
Online workshop 1 - Teenagers	Colleague for parents	TW	2 boys, 2 girls	14–15
Online workshop 2 - Graphic Design Students	Teacher	GDW	2 men, 1 woman	20–30
Online workshop 3 - Media Technology Students	Classmate	MTW	3 women	20–30
Online workshop 4 - Young Adults	Friend	YAW	2 men, 1 transwoman	20–30
Physical workshop 5 - 2-day open drop-in workshop on-site in the museum	Authors and the museum	On-site workshops	60 people	3–70+

TABLE 1. Table showing the five different workshop groups with the background of the participants mentioned along with their ages and genders.



FIGURE 1. Image from our Google Jamboard showing the different objects we chose for the workshops.

a combination of things that we hoped the participants would be allowed to hold and feel with the proper care (**Figure 1**). Our initial plans included combining physical and virtual workshops, but considering the global pandemic, we had to move the assembly into the digital space and the feeling of the objects lost its physical meaning. Instead, we got to explore how the participants experienced the loss of materiality.

Technological platform for the workshops

In planning and designing the digital workshops, we aimed to use tools that were readily available to us and our potential participants. Because of this, the chosen tools had key features such as a low learning threshold, wide accessibility, and being free of charge. We chose Zoom as our video conferencing application as it is already the standard online teaching tool at Malmö University. For the workshop, we chose Google's Jamboard, a web app included in Google's office suite, that allowed us to set up a collaborative note-taking white-

board with the pictures taking centre stage. Google Jamboard had a zoom function, the possibility to add sticky notes and drawings as well as a function for exporting the whiteboard to PDF/JPG. Opting for tools with limited functionality, we ended up with constraints built into the workshop process. As an example, we could not include 3D viewing of an object. Nonetheless, these constraints supported the ease of use and simplicity of our workshop set-up, putting less focus on the technical features and instead focusing on the task at hand: working with the museum objects.

Setup and facilitation of the workshops

All four online workshops had a similar structure, and they used the same Google Jamboard set-up: a short intro discussing the role of museums in general, and the collections of Malmö museums. An overview with all the objects followed by twelve slides, one for each of the twelve chosen objects from the Sailor Souvenirs collection. To end the workshop, we also had a final slide where we invited the participants to discuss how they would have presented

this collection in an exhibition. We aimed for the workshops to be 1.5-2 hours long and framed around open and broad questions relating to the objects and what participants thought about them; the feelings that objects evoke; as well as possible meanings and stories behind them. These open questions supported fantasy, storytelling, but also freed participants from the expectation of knowing - they were recognised as laypeople.

Further, the combination of Zoom-meetings and a Google Jamboard whiteboard framed the workshops and limited the actions of the participants. Participants were encouraged to not just discuss and interact with the facilitator but also with the other participants participating in the workshop. Interactions involved anything from just discussing a detail together, to sharing additional information and other external pictures. Being online meant that with the switch of a web browser tab, participants could find information on Wikipedia or Google, or they could browse online databases for further information. This demonstrated that even context-less museum objects could be linked through the media ecosystems in a rich and connected way.

For example, in the MTW and YAW, the participants started by discussing a few minutes about each new object, after which the facilitator offered information (material, size, provenance, age). In comparison, the GDW offered participants a view of the *Carlotta* entry for each object as it was introduced. A specifically interesting observation here was that the *Carlotta* records of the donated person became the starting point of discussion, venturing out to a general discussion about the participants' experience of travelling, collecting and bringing objects home from travels. Interestingly, these topics were somewhat absent or altered in the other workshops. It is also clear that differences in facilitating style influenced the discussion that were had, with the GDW session being more linear and focusing on the *Carlotta* records, whilst the MTW and YAW sessions allowed for more external explorations to be had.

Enhanced digital interactivity

The photos of the objects in the Google Jamboard whiteboards could be enlarged to focus on specific details, they could also be drawn upon to point the attention to some detail, layering the picture with hand-drawn



FIGURE 2. Picture of the Chinese hat part of our workshop. Participants explored different ideas on what kind of hat it might be and found examples of it on the internet.

figures and notes. For instance, there were interactive moments between participants whereby one of them developed a particular interest in the pattern design of one of the objects, to which another participant responded by drawing a replica of that same object. In another example, one participant looked for related pictures online and found additional information about a specific object's origins (**Figure 2**). Both remixing with other images and drawing were part of the sense-making process, where the participants' possibilities to bring in other modes of expression were supported by the digital environment.

Using the existing images as the starting point for our workshops meant that we stripped the objects from their meta-data when placing them on the whiteboard. Therefore, in the workshops, the explorations often started with discussions of the size, material, function and origins of the objects as not all of this was immediately obvious from the pictures. The added layer of access to diverse online resources enhanced the discussion and highlighted the potential of object-centred participation to support free associations, cultural connections and fantastical idea generation. We suggest that bringing objects as starting points for discussions would even enhance other participatory approaches.

What we learned from the processes

The relationship between workshop participants had a considerable influence on the workshops. This was most likely related to the challenges in the digital format, participants who were less familiar with each other were more hesitant about speaking out and interacting via the Zoom interface. Some of the participants in the workshops knew each other well, and others were new acquaintances, and the pre-existing relationship between participants influenced the interaction. In the MTW and GDW participants knew each other well from their education and daily life, and we can presume that they were also used from their studies to engage in joint discussions or brainstorming. In contrast to this, in the

teenager group, participants did not know each other well. There was also a language barrier as two participants were Danish speakers and two Swedish speakers. The tempo and exchange in the teenager workshop were, therefore, slower compared to the other workshops. This could be due to participants not knowing each other, or because of less familiarity with brainstorming tools, or because of the language barriers. Thus, even if in our workshops, the participants were young and overall, technologically savvy, the affordances of Zoom-based workshops did not support getting to know each other and becoming comfortable with each other. Digital collaborations can work better when the participants that are engaging with the material already know each other even if the content and context is new.

Whilst the technology used constrained interaction to some degree, it also supported participants in their quest for further knowledge and allowed them to keep track of the workshop progression. As the workshops were structured around twelve objects, each having its own whiteboard, it was possible to engage with one thing at a time, while also seeing what else was to come. In the MTW and YAW, the facilitator strengthened this by mentioning the number as each new object was introduced. The TW also followed the order of the objects, taking time to talk about each of them, spending more time on the favourites and less time on others. At the same time, the structure of the workshops allowed deviations and flexibility. In the GDW, participants ventured out into lengthy discussions on their favourites, and some of the objects had to be skipped to make time for the concluding discussion.

As observed, online engagement was supported by the in-group familiarity, and when such familiarity was lacking, the objects themselves supported participation. As such, we can conclude that when organising digital participatory activities, it is important to be aware of the group relationships, as well as the familiarity of the objects. If, as in our case, the intention

is to bring a lay-person perspective to an obscure collection, the interactions are stronger if people know each other better. At the same time, we propose that lack of familiarity within the group does not necessarily call for concern if participants have deep familiarity with the objects. Everything from the digital tools being used, to the different facilitation styles and the participants' backgrounds led to varying interactions with the objects.

In the digital workshops, the institutional framing of the museum was lost. Our experiments were parallel to the museum, and relied on the university, and not the museum for their institutional context and for the institutional recognition of this work. Therefore, the implications for power shifting were not explored, nor could we ensure that our experiments with object-centred participation would not be tokenistic.

The workshop on-site

A continuation of the project was made when the pandemic situation permitted the museum and us to hold on-site workshops at the exhibition hall. In these workshops, we had less focus on interactions between participants and more focus on the one-on-one engagement between the museum objects and the participants. In the workshops held on-site in the museum, the mixed-media nature of a physical exhibition was clearly on display. Ross Parry (2017) points out that the museum's unique combination of material, as well as multimodal media offering, includes objects as well as digital screens, videos and other interactive digital displays, which was visible at the Malmö museums exhibition as well. Within our workshop, we pushed the remediation of the museum objects an additional notch and linked the objects back to the digitized archives and their information about the objects. During the workshops, any museum visitor who entered the space was invited to participate. As people walked around the exhibition and viewed the objects on display in glass display cases, we asked them to reflect on and react to the objects and their potential (hi)stories by drawing or recounting

their reactions in words on premade discussion cards (**Figure 3**). People contributed stories on the cards or by remaking objects in clay. We then photographed their contributions and displayed them on a screen instantly within the museum space, and, later, Malmö museums archived them in the *Carlotta* database together with the exhibited objects². Through this process, a rather complex chain of remediation of physical and digital objects, stories and facts, museum practices and audience participation emerged. Embedded in these object-focused acts we also find the intricate layers of cultural and social conventions, expectations, professional practices, historical facts and fictional storytelling that are part of a museum as an institution, which emerged as even more evident during a time of limited physical interactions as in the case of a global pandemic.

An example of the complex remediation we bring this exchange with a father and his young daughter, who were drawing and writing on our premade cards. It was clear that they were discussing a particular object, as they repeatedly gestured towards it. Finally, the father went to the glass case and took several photographs with his smartphone. As he sat down again, he and his daughter inspected the photographs, zooming in on details, to support their interaction with the museum object. Clearly, this photo, as a remediation of the very physical object that was just a few metres away, facilitated their conversation and their reflections on the object that they later handed in to us. In these subtle ways, the intricate intertwining of the object and representations of that object (photographs, *Carlotta* database records) is part of contemporary digital media culture. Current smartphone practices of taking photos of objects to document the objects are a central part of the museum visit (Henkel 2014). By bringing their digital devices to be part of their museum experience, people also bridge the walls of the museum as an insti-

2 To find the archived contributions, browse to <http://carlotta.malmo.se/carlotta-mmus/web> and search for mm063338 [main id for the contributions]



FIGURE 3. Two examples of discussion cards. The left card is for adding stories or drawings to museum objects, the card to the right is for adding new “objects” to the collection. Copyright: The authors and Malmö museums.

tution, embracing the distributed nature of the museum (Proctor 2017), and to highlight how the museum belonging to a (digital) media ecosystem, even if linked just by the user experience.

We could also observe people patiently waiting to get a glimpse of their contributions on the screen within the museum space, and clearly enjoying the sight of their creation, showing that institutional recognition and validation are important parts of participatory remediation (Simon 2010). Overall, our intervention and extension of the Method of the Thing foreground these chains of representation and remediation: museum objects, written or drawn reflections about them and other similar objects, photographs of those reflections on cards, the additional exhibition of the photos on a screen in the museum, and, finally, the digitization and inclusion of the cards into

the Carlotta database alongside the original objects' records.

The remediation of the participant creations in which the photos travel from the exhibition space into the Carlotta database and become records of memory, demonstrates an opportunity for circularity. There is a continuous shift of setting, which allows us to create new stories around them. What happens to our understanding of the original museum object when it is put in relation to other objects, brought into the mix by the workshop participants' reflections on the cards? The museum then institutionalised the workshop participants' remediations by taking pictures of them and “musealising” the drawings as well as the clay sculptures that were also created. Ultimately, attaching additional meta-data to these objects leads to a layered complexity that was not seen before around these objects.

FUTURE CONSIDERATIONS WITH AUDIENCE PARTICIPATION

Museums remain part of the larger media ecosystems by producing media themselves, but also through audience interactions and digital devices in the museum space. As such, a detailed understanding of audience participation provides learning opportunities to other cultural institutions. Museums' special focus on their objects can inspire other cultural institutions to try out object-centred participatory methods. Interactions and engagement within museums bring our focus to the materiality of participation in cultural institutions and our workshops show examples of what kind of opportunities and challenges arise when we are "translating" an object-centred participatory engagement into a digital context. The COVID-19 pandemic pushed us to consider digital images as material remediations. The images become "objects" for consideration and manipulation. The focus on the museum objects in our workshops challenges the authority of the museum institution, challenges the understanding and interpreting of the objects and allows for new forms of collaboration.

Other cultural and media organisations can learn that their media content can have a materiality that engages people in playful interactions. The materiality of the evening TV news sets, costumes from a favourite show, or puppets or drawings from one's favourite childhood programmes can be productive places to consider participation with the audiences, relating them beyond the museum-value of said things, but considering them as starting points for participation. As our experience with the workshops has shown, digital remediation of the material objects could still open a space for participation and interactions.

However, it could also be argued that because the objects were selected into the museum catalogues by the curators, the audience did not have much agency to challenge the choices made. As such, participation was still carried out as a top-down interactive approach. One way to address

this top-down approach would be to allow the participants the choice from within the museum collections or invite them to bring their own seafaring objects. With our on-site engagement, we tried to invite contributions from the visitor's homes, but no one sent in anything, showing that the offer to participate was refused. But engaging audience contributions more centrally to the workshop could also be a way in which other cultural institutions that don't have a material collection can bring object-centred participation to their operations. Inviting people to have conversations about media, screens, and culture with the things of their choice as a starting point would lead to many interesting encounters.

Engaging audiences always opens a question: to what extent is the knowledge produced by visitors on par with the established knowledge of the museum? How does the cultural institution acknowledge the contributions of lay people without compromising its authority as a repository of established knowledge and established thing-stories? In our experience, the participants were not interested in challenging the power position of the cultural institutions. Rather, the gatherings around the museum objects - both in digital workshops and on-site - involved play-acting and borrowing of roles, the imagination of being a mock professional, and playing museum researchers and curators. Different workshop participants engaged in extensive role-taking or roleplay: as an exhibition designer, or a detective inquiring into the history of things, or as a donor adding new objects or stories to the collection. We see that engaging audiences is supported by allowing visitors to imagine and play, and thus, museums are less challenged by potentially controversial ideas. Focusing on play and fun in the participation does give museums interesting material and allows them to incorporate or dismiss as it suits them, but of course, such an approach does little to the deeper conceptual democratisation of the institution.

One of the lessons learned from our experiments was also related to platforms and tools. In the context of cultural

institutions, too often there is a perceived need to consider specialist tools. As a result, on-boarding for digital participation becomes a challenge for the audiences as learning the platforms can be complicated. Using Zoom and Google Jamboard lowered the threshold of technical competencies. However, such a choice also brings the critical question of engaging third-party platforms and succumbing to the logic of “platformisation” (van Dijk 2014; Meijas, Couldry 2019). In our workshops, the Zoom accounts we used were provided by Malmö University and did not include the transfer of the data and recordings to the third party, but data transfer can be an issue for smaller cultural institutions, which have less to say about the platforms and data. Jamboard is owned by Google and while our users could engage with it anonymously, and left no personal data on the whiteboard, the use of such platforms still needs careful reflection and consideration. According to the new museum ethics, the three core strands of the moral agency of the museum are social inclusion, radical transparency and shared guardianship (Marstine 2011). The use of third-party digital platforms is supportive of the ideas of social inclusion and shared guardianship but lacks significantly in the areas of radical transparency. Additionally, the use of the museum database *Carlotta*, standing for knowledge of museum professionals reaffirms the non-transparency of institutional knowledge.

In implementing digital participatory activities, the questions of power and institutional responsibility always need to be central in planning them. Museums, like other cultural institutions, have a lot of responsibility to share power, to broaden the scope of interpretation as well as to democratise and diversify the voices populating our public sphere. The challenge for the digital sphere is that often external actors mediate it, and as such, care needs to be taken to negotiate the balance between inclusion (ease of use, accessibility, skill barriers) and issues of data and platforms. It can be that in the name of widening participation and inclusion, the

audiences are “paying” for their right to participate with their data and privacy (Wilson-Barnao 2016).

As explored in this project, museum objects that act as contact zones – becoming places of participation – become more interactable. Laypeople are encouraged to “play” with the representation of these objects and to create meaningful remediations of them. However, another side of this coin is that the objects were still placed inside glass enclosures at the museum with a clear connotation that these objects, as much as they are to be interacted with, are still institutionalised in the formal setting of a museum. The digital workshop whilst being more open-ended was also limited to the photographs and metadata provided by the institutionalised *Carlotta* database. This highlights that whilst the project shows that encouraging participatory experiences at museums can be beneficial and enjoyable both for the museum and participants/visitors, both the online and the on-site workshops were still limited in how they allowed participants to manipulate the objects. Some of the limitations can, in the future, be addressed with technological changes: tactile feedback, VR, 3D spaces, 3D photos or 3D printed replicas. Other changes will need more systematic refocus in how museums want to rethink their institutionalised setting for participation in the future.

CONCLUSIONS

This article has argued that object-centred audience participation in a digital setting allows for unique ways of reimagining and exploring museum objects. Given the limitations caused by COVID-19, we found that the online workshops offered rich discussions within a limited digital environment. Audience contributions inspired by the museum objects and potentially recorded in the collections can be envisioned as a circular process of remediation between the museum, the object and the audience. The *Carlotta* database, developed for museum object management and repurposed as a public face of the museum

collections, offered sui generis possibilities that became part of our participatory practices.

On the one hand, the strictly institutional structure and contents of the database proved difficult to navigate and the contents, while being quite accurate, were found to be tedious to non-experts. On the other hand, when institutional records are scarce, the participants engage more freely with the object, taking the liberty to explore and create without being bound by the fear of missteps. Indeed, creative and playful practices support audience participation, as audiences see them as unreal, nevertheless too much playfulness limits the power-shifting potential of pushing engagement into participation. Choosing objects as places for participation is not only possible for museums, but digital media objects can also similarly be at the core of participatory discussions within other media organisations. It becomes important to recognise the remixability and institutional openness, but also make space in the institutional practices to recognise and value audience participation through the objects. Yet, care must be taken when third party platforms with their invasive data collection practices become the only imaginable sites for audience participation. Care must be taken to evaluate the benefit of familiarity and ease of use against their potentially harmful data practices.

Our experiments with museum collections show that audience participation benefits from being object-centred even when conducted in a digital setting. Our participants enjoyed the time and space where we opened the museum collections for them, and they appreciated the extensive focus on a handful of objects. Thus, while the COVID-19 pandemic has not allowed us opportunities for extensive comparative workshops, we have still seen that the focus on the objects made meaningful participation from laypeople possible.

We argue that object-centred participation methods can be used in a variety of participatory situations. While museums have the clear advantage of their digital collections, their work takes place in a larger media ecosystem. The audience's expectations and experiences from using multiple other media bring them to the digital museum platforms with a willingness for exploration, remixing and integration. Audiences will continue to bring similar expectations of participatory culture to other media platforms. The COVID-19 pandemic forced a rapid expansion of the digital media ecosystems and many organisations usually not considered part of it have had to make space for themselves. While museums have long realised that their continued relevance relies heavily on their ability to have conversations with people around them, other cultural organisations are stepping up their search for relevance.

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