Article

Lost in Translation: Video Games Becoming Cultural Heritage?

Lina Eklund [iD]
Uppsala University, Sweden

Björn Sjöblom
Stockholm University, Sweden

Patrick Prax
Uppsala University, Sweden

Abstract
Recent attention to the question of preservation and exhibition of video games in cultural institutions such as museums indicates that this media form is moving from being seen as contentious consumer object to cultural heritage. This empirical study examines two recent museum exhibitions of digital games: *GameOn 2.0* at the National Museum of Science and Technology in Stockholm (TM), and *Women in Game Development* at the Museum of Art and Digital Entertainment, Oakland (MADE). The aim is to explore how games are appropriated within such institutions, and thereby how they are configured as cultural heritage and exhibitable culture. The study uses actor-network theory in order to analyse heterogeneous actors working in conjunction in such processes, specifically focusing on *translation* of games and game culture as they are repositioned within museums.

The study explores how games are selectively recruited at both institutions and thereby translated in order to fit exhibition networks, in both cases leading to a glossing over of contentious issues in games and game culture. In turn, this has led to a more palatable but less nuanced transformation of video games into cultural heritage. While translating video games into cultural heritage, the process of making games exhibitable lost track of games *as* culture by focusing on physical artefacts and interactive, playable fun. It also lost track of them as situated *in* our culture by skimming over or ignoring the current contentious nature of digital games, and

Corresponding author:
Lina Eklund, Department of Informatics and Media, Uppsala University, Ekonomikum (plan 3), Kyrkogårdsg 10, Uppsala, Sweden.
Email: lina.eklund@im.uu.se

finally, it lost track of games as being produced and experienced in a particular context, or games *of* culture.

Keywords

Actor-network theory, cultural heritage, digital games, exhibition, museums

Introduction

Recent attention to the question of preservation and exhibition of video games in cultural institutions such as museums indicates that this media form is entering a new phase, from consumer object to cultural heritage. As interactive objects in museums, focus has been on preserving and exhibiting the 'original experience' of this media, that is, combining original hardware and software and making them playable for museum visitors and future generations (Lowood et al., 2009; Pinchbeck et al., 2009; Van der Hoeven et al., 2007). However, video games (also digital games, or simply games as we will refer to them here) have traditionally been considered problematic and frivolous activities taking time from more important pastimes. Indeed, video games have even been perceived as dangerous for children and youth (Buckingham, 2000), and as a setting for such critical social issues as gendered harassment (Consalvo, 2012).

From being either ignored or vilified by mainstream media and cultural institutions, today video games are in the process of becoming valued culture, recognized as a medium in their own right, for their own aesthetic and cultural values. Museums, as cultural gatekeepers, are part of validating the status of digital games in contemporary culture by preserving and displaying them. This process of collecting and exhibiting games elevates them into an accepted form of popular culture. Yet, museums are struggling with how to work with games both as interactive, digital objects, and as cultural expression (Barwick et al., 2011; Prax et al., 2016). Research so far has focused on how preservation can be achieved, with few studies – as far as we are aware – investigating the transformation of games into exhibitable and collectable objects and culture in museums. Our study explores this omission and also answers the call for more research looking at games as legitimate cultural expression (Shaw, 2010). We contribute to our understanding of how our digital ventures are becoming part of our cultural heritage and what this can tell us about the state of video gaming as culture.

To this end we explore game exhibitions at two cultural institutions: (1) The Swedish National Museum of Science and Technology in Stockholm, specifically the exhibition *GameOn 2.0* hosted there in 2014, and (2) the game museum, Museum of Art and Digital Entertainment in Oakland, California, and their 2015 exhibition *Women in game development*. In this study we contextualize and analyse these exhibitions in order to understand how video games are handled by two different kinds of museum institutions, what actors and processes are involved in such exhibitions, and by extension, how such actors and processes shape the meaning of games as suitable for museum attention. We do this through interviews with staff, as well as observations of the two exhibitions and museums. We argue that the process of digital games' entry into museums and their concurrent transformation into cultural heritage involves a glossing over of many contested aspects

of games and gaming. In order to translate games into exhibitable culture, the result is a highly selective representation of video gaming in the past, present, and future.

Video Games in Museums

Video games became popular home entertainment products in the 1980s as digital technology became increasingly available for personal consumption. In the last 10 years, estimates have suggested that half of the western world plays digital games (Juul, 2010), yet video games rest uneasily within dominant discourses of (popular) culture. Moral panics – when 'moral entrepreneurs' through mass media come to identify a phenomenon or group as a threat to societal values (Cohen, 2002) – have accompanied the growth of the medium, from fear of delinquent behaviour in the arcades of the 1980s (Haddon, 1988) via fear of social isolation (Pasquier et al., 1998) and violence, to today's discourse on addiction (Bergmark and Bergmark, 2009). Additionally, critical issues have been raised, such as the ruthless working conditions for game developers and the widespread sexual harassment taking place in the anonymous online game environments (Consalvo, 2008). We do not argue for games as being either 'good' or 'bad', but want to highlight how public perception of games has been shaped by moral panics.

Related, video games have been seen as existing on the fringes of popular culture, a position allowing games to – despite their cultural importance – be dismissed as non-important or 'other' (Shaw, 2010). In general, games have been construed as toys, dangers, or simply consumer objects, rather than as culturally legitimate, and have only lately come to the attention of museums and other preservationists. The US art museum the Smithsonian's 2012 exhibition, *The Art of Video Games*, and the US Supreme court's 2011 ruling that video games are an art form qualifying for protection under the First Amendment of the US Constitution, alongside visual art, books, plays, movies, music and other forms of expression, can be seen as examples of the entry of video games into high status cultural institutions. Researchers have since argued that games both are and reproduce culture, as games reflect back and reproduce hegemonic cultural projects (O'Donnell, 2014). In this way, we can understand games as being: 'in/as/of culture …' (O'Donnell, 2014: 410).

Even though, for example, the *Computerspielemuseum* in Berlin has been in operation since 1997, many cultural institutions with more general scopes are only now beginning to wrestle with how to work with games in a museum context (Barwick et al., 2011; Prax et al., 2016). This involves a process of elevating digital games to become part of our cultural heritage, a process which defines not only our past, but also our present, by singling out what is 'valuable' and 'important' about contemporary culture. In the words of the sociologist Émile Durkheim (Durkheim and Swain, 1965), what has been profane – ordinary and every day – is being revalued via institutions like museums and becoming sacred – valued and deemed important enough to preserve and exhibit for our future. Defining something as heritage is thus a cultural and political process of marking off the past, present, and future (Bennett, 1995).

Part of games' entry into museums stems from an increasing fear of losing the history of video gaming (Lowood et al., 2009); it has been argued that it is urgent to start

preserving games now, as collections are increasing in price and becoming scarcer (Heinonen and Reunanen, 2007). In comparison with how much of the early history of silent film was not preserved adequately and was thus lost (Pierce, 2013), researchers point out that games that are only a few years old are already unplayable (Lowood et al., 2009). The discussion of preservation of digital games is, to a large degree, permeated by the same rhetoric of loss and urgency as other heritage discourses (see Cameron, 2008). In consequence, research and other efforts have mostly dealt with material and judicial aspects: hardware failure (Lowood et al., 2009), emulation (Pinchbeck et al., 2009; Van der Hoeven et al., 2007), and intellectual property rights (Barwick et al., 2011; Corbett, 2006). A key issue has been how to preserve and exhibit the interactive nature of games – a fundamental difference between games and most other media. In line with the idea that games only come to be as they are played, 'playability' has been an important concern. However, critical voices have argued that too much focus has been put on 'the original experience' of playing older games on original hardware, and that in preservation of video games, nonmaterial aspects of gaming culture should also have a place (Sköld, 2015; Swalwell, 2013).

Museums make decisions about what to preserve and exhibit of our history and contemporary culture, and through selecting what should be preserved and displayed they are key institutions in the construction of cultural heritage. However, in practice this process is far from clear-cut, and heritage studies beg us to ask, who preserves what, and why? (Lowenthal, 2015.) While museums used to give primacy to objects, in new museology visitors are at the centre (Hooper-Greenhill, 1992). Along with this shift towards audiences, entertainment has risen alongside education as key museum goals. These shifts in focus show us how multiple actors are involved in shaping museum work, which is far from stable. Game exhibitions thus come to be in the cross-section of a multitude of material and immaterial aspects, from their material construction, to their status as cultural objects and expressions, to the institutional goals of museums and other custodians of cultural heritage.

In sum, previous research has focused on the practicalities of how museums should work with games in order to preserve them both as 'original' experiences and as discrete objects. However, this approach has limited engagement with video games in a broader sense as immaterial heritage, the culture of people's everyday life (Kurin, 2004, see also Sköld 2018).

An Actor-Network Approach to Game Exhibits

When attempting to understand the many components that come together to make a game exhibition, it is clear from previous research that we need to pay as much attention to the games themselves, the museums (such as their material and organizational aspects), as to the processes of heritage making. A museum might have specific educational or other goals, and the games themselves come with certain properties, such as probability for hardware problems or opportunity for interaction. Likewise, museum visitors bring additional factors into this mix. These are some of the components (actors) that determine the shape of what games come to be in museums. To pursue our analysis we draw on actor-network theory (ANT), which has been established as a foundational

perspective for the examination of relationships between material and immaterial, human and non-human actors (Callon, 1986; Latour, 2005; Law and Hassard, 1999).

We use ANT as it allows us to offset the primacy of human agency in our analysis and to study the agency of both human and non-human actors. ANT has, together with various approaches of 'new materialism' challenged the human subject and discourse as a primary unit of analysis, instead taking an interest in how social and material phenomena are formed in interactions and relationships between various kinds of actors.

We thus focus on game exhibits as non-stable networks, consisting of different actors and their interrelationships. These actors have different ways of interacting, and in order to fit into networks they become translated – their meaning transformed. Actors do not fit seamlessly into each other, but have to be moved, negotiated, persuaded, or forced into cooperation (Callon, 1986). Callon shows several mechanisms for this and how processes combining human and non-human actors enrol these mechanisms for a common cause, often letting human actors work as spokespersons for the whole network. Naturally, networks of actors break down through various forms of dissidence; networks require maintenance and work to remain at least semi-stable (Callon, 1986). While ANT does not state in which directions different actors influence and transform each other (through giving primacy to, for example, human agency), it does not rule out asymmetry and power play within networks. ANT allows us to be aware of such power struggles and the shifts occurring as actors intertwine in forming the meaning of video game collections and exhibitions as semi-stable and observable entities.

ANT has previously been shown to be useful in studies of museums and cultural heritage through taking into account both material and non-material agency (Byrne et al., 2011; Dolwick, 2009; Ong, 2014). In such studies radically different actors are seen as assembled in networks producing collections and exhibitions. By drawing on ANT we can analyse the complex interactions between many types of actors, while maintaining a critical eye on these interactions. However, we are not assuming uniform types of agency across all actors, but rather examine differentiating levels of power within the network. This is thus an open-ended approach, where no set of actors is excluded *a priori*.

Method

Our two cases are: The Swedish National Museum of Science and Technology (Tekniska Museet, hereafter TM) in Stockholm, Sweden specifically the exhibition *GameOn 2.0* hosted there in 2014, and the Museum of Art and Digital Entertainment (hereafter MADE) in Oakland, California, and the exhibition *Women in game development* hosted in 2015. These exhibitions were chosen as they represent two different types of museum, both in size, institutional context, and aim. TM is a well-established institution with a long history and high status as a national museum with a charter involving preserving technology and industry as part of Swedish cultural heritage. MADE is a small, relatively new museum dedicated to computer games, struggling to find its place, largely sustained by volunteer work and the passion of its staff. The exhibitions were of different sizes, with one being more selective in scope. We do not intend to generalize all game

exhibitions this way, but by using two contrasting cases we hope to illuminate some common as well as some differing aspects. A limitation is the western setting of the study, but our findings ought to be applicable to other museums and institutions outside of this cultural context.

We spent extensive time at the museums; at MADE by going to volunteer meetings and open houses over a six-month period in 2015, and at TM by being on the premises a few days each month during a three-year period in connection with a research project located at the museum (2015–2017). During this time, we were employed by the museum. We had no part in the work of producing the exhibitions, but were able to observe the ongoing processes, visiting the exhibitions, and taking part in guided tours. We also gained access to design and information material containing descriptions and information about the exhibits and their layout. Of note is that we have extensive backgrounds in games research, having completed PhDs in this field. Such knowledge, both practical and theoretical, informs much of the current study, enabling us to understand facets of interacting with games that could not be gained from just observing visitors playing, and becomes one way of integrating games, as actors, into the study. From an ANT perspective, our knowledge of games is part of how the study takes textual form.

Through discussions with staff we identified key informants at each museum, individuals who had worked with games and the exhibits. Not everyone identified wished or had time to be interviewed. We conducted 12 interviews; 6 at each museum with staff in different capacities, specifically floor staff, managers, artists, and curators. From a methods perspective, this study uses the accounts of staff as a starting point, but connects these to the properties and actions of other actors in the exhibitions. These include interactions of visitors, although they were not directly interviewed. Interviewees were informed that participation was voluntary and could be terminated at any point. Quotations are anonymized, yet as institutions are small, all informants were made aware of the possibility that fellow staff members might be able to identify them. To increase the confidentiality of our informants we do not reveal their position in the presentation of results but instead use a numbering system. The interviews varied from 20 to 90 minutes and were conducted as focused semi-structured interviews (Minichiello et al., 2000) to allow interviewees to tell their stories from their own perspective. Our questions concerned the informant's experiences of working with games in museums, professional background, relation to games, as well as discussions about the exhibition in focus. All interviews were transcribed in full; all Swedish quotations are translated into English.

We performed thematic qualitative analyses on the interview data (Boyatzis, 1998). First we identified the actors working together to make the museum exhibits in our two cases, then coded the interview data according to these actors: (1) the games, (2) the exhibitions, (3) the museums, (4) the staff, and (5) the audience. We then wrote rich empiric descriptions of each museum that detailed their exhibition work, focusing on how the actors' interaction patterns formed the exhibition, and paying attention to the power that actors exerted in the network. We then did a comparative analysis of our two cases across our five codes in order to uncover differences and similarities.

Game Exhibitions in Two Museums

We focus on interactions between actors and what happens as actors came together in the exhibitions, rather than actors as static entities and thus present our two cases separately.

GameOn 2.0 *at TM*

The National Museum of Science and Technology – TM for short – has, since 1936, occupied a specially constructed, multi-floor building in Stockholm with 10,000 square metres of exhibition space. It receives more than 300,000 visitors per year and has around 65 employees working in event planning, curation, exhibitions, research, human resources, and so on. The museum is one of several non-profit, national museums in Sweden. It is tasked with compiling and presenting the technical and industrial heritage of Sweden, to develop and convey knowledge and experiences of this cultural heritage and provide perspectives on social development:

> To make the world more understandable through reflecting technology from a contemporary perspective, with history as the starting point and the future around the corner. (from TM's mission statement)

The imposing building stands at the Stockholm waterfront with big glass doors open six days a week to paying visitors, who enter a foyer with white painted walls and dark marble flooring, gently flooded with music to fit whatever current exhibition is the main draw. In 2013–2014 the museum hosted the exhibition *GameOn 2.0*, a Barbican, London, production rented by the museum and put up in collaboration with Barbican staff. Even though the exhibition came as a premade package, TM did internal curation, choosing which games to exhibit and changing content. One example of this was how a display on the development of game-character Lara Croft's breast size was removed as it was considered inappropriate in a Swedish gender equality perspective. Renting the exhibition was a considerable investment and had limitations in terms of adaptability to the national context. However, a prolongation of the rental period for *GameOn 2.0* demonstrates the return on this investment. The exhibition was sectioned by themes, such as history, genre, and portability.

A large advertisement campaign announced that the world's largest computer game exhibition could be experienced at the museum, and visitors entering the exhibition were assailed by the sound of 120 digital games simultaneously being played on original hardware by a large crowd of visitors.

To begin with, the museum management was sceptical of the idea of a games exhibition:

> There were a lot of people who weren't so … there were a few at the museum like the management and such that maybe didn't think it was such a good idea, or maybe just didn't believe in the idea very much. (Informant 1, TM)

The exhibition was considered something far beyond the museum's normal framework, and digital games were not a topic that the museum had previously considered part of their mission:

> A bit higher up in the organization they were afraid that the guides would get stuck in the games, so because of that they said: 'You're not allowed to play the games, you can only answer questions and clean up and such things.' (Informant 3, TM)

Games were partly perceived as dangerous, treated as interlopers, and the management was actively trying to deal with the risk of having potentially addictive, playable games in the museum. This ban was later revoked as, according to staff, it made showing the exhibition nearly impossible. Thus, floor staff experienced a lack of engagement and organizational support. For example, there was, at times, no official project manager, which is otherwise standard at the museum. Consequently, informants explained how they had to make decisions on the go in order to figure out ways to work with the exhibition that were acceptable to the management. It is likely partly because of this that our informants felt it was important that floor staff had a personal stake in the exhibit:

> In an exhibit like *GameOn*, with very little information and more like an arcade, I think it's very important that the ones working there appreciate it and want to learn and know as much as possible so they can tell others. And I think it's easier to share this knowledge with others if you are passionate about it. (Informant 2, TM)

In contrast to the sceptical management, staff working with the exhibition 'understood' – as they expressed it – games.

A common theme in the interviews was how the exhibition lacked educational goals. As in the foregoing quotation, the focus on playing games rather than explaining them made it hard to impart knowledge to visitors. In this sense, the games were left to speak for themselves, with little outside contextualization. The games largely stood alone together with placards instructing visitors on how to play. A few traditional glass cases displayed a variety of consoles and game paraphernalia such as action figures, but with little information about the pieces or their cultural relevance. Exhibited in this way, games were portrayed simply as technology, disconnected from social and historical issues.

In the interplay between actors at TM, the contentious status of games exerted direct influence, as in the example of floor staff at first being forbidden to play the 'addictive' games. Actors tugged in different directions at the shape of games as playable *and* exhibitable. The mission statements of the museum, where pedagogics and informing the public stand at the forefront, collided with the exhibition itself, which was working from a logic of games as interactive and thus 'playable fun', making regular forms of learning and information difficult. On the other hand, this interacted in fruitful ways with visiting audiences – many people liked staying and playing in the exhibition. Configuring *GameOn 2.0* therefore relied on a focus on interactive and enjoyable aspects of games, letting them dominate over informative and pedagogical qualities. Selected parts of video games, to this end, had to be recruited as representative of game culture, in what can be understood as processes of translation (Callon, 1986). Those games that could conform to the limitations posed by spatial restrictions (games were played standing up), temporal restrictions (games were usually played for only a few minutes), and restrictions related to suitability for children (no games rated 18+), were enrolled as speaking for game culture and game history. Through such selective recruitment of game-actors,

the display of game history was shaped in concert with the more practical needs of the museum, such as providing an attractive venue for family visits in order to secure attendance and revenue.

Children made up the majority of the visitors, which fits well with the museum's slogan, '*Every little genius's favourite place!*' (authors' translation). The museum caters mainly to children between 8 and 12 and the exhibition was staged with this audience in mind. *GameOn 2.0* was indeed popular among this group, as well as among teenagers, who were seen as a group usually difficult to reach for the museum. Their attendance was taken as a sign of the exhibition's success. Even though not explicitly stated, the selection of games took into account discourses regarding potential harm of exposing children to the more brutal, gory, or otherwise problematic content of digital games, in that there were no games included with an age-rating of 18+. As such, the rules regarding the suitability of certain games for certain players (materialized in the form of the industry's PEGI-ratings) constituted an actor with specific influence over the network, shaping the format of the exhibition. This, in turn, glossed over aspects that could be considered unseemly, as games with controversial content were excluded. Recruiting the PEGI-system into the exhibition network therefore served to diminish the impact of games that could be seen as 'problematic'.

The restrictions on which games were shown did, according to staff, lend credibility to games as a valued form of culture, instead of vilifying them:

> It's always been accepted to engage with music or art and to exhibit those types of culture, but video games have ended up in the shadow, so it is quite a big thing that a national technical museum puts on an exhibition with over [*sic*] two hundred games. (Informant 2, TM)

The interactive nature of the exhibition promoted the medium-specifics of games, yet posed difficulties for visitors not familiar with gaming. Visitors were supposed to play, yet playing demanded knowledge about the conventions of different genres and platforms. This posed a barrier for engagement and as a result those not previously familiar with games often walked aimlessly through the exhibition without interacting with them. Moreover, visitors preferred familiar games – young visitors usually played modern games and adult visitors played games from their youth. While museum staff worked hard to present the relevance of all games and to increase the knowledge represented by the exhibition, its very structure made such efforts difficult, as exemplified in this statement:

> It was very difficult to have tours in this room … there was so much noise and disturbance. (Informant 1, TM)

The museum tried to give tours that added information about the cultural significance of games, but staff found it impossible to keep the attention of visitors. Instead of listening to the guide, they would start to play the games. Thus the number of tours was drastically reduced after an initial period. In this context, games as cultural objects were portrayed in the exhibition as entertainment and technological artefacts disconnected from societal or cultural issues. The exhibition format in itself also resisted the contextualization of its

objects into wider cultural networks through its inaccessibility for visitors lacking prior knowledge, and the inability for information to be conveyed in the exhibition room.

Visitors were essential actors in the exhibition interactions. Although not intended to cater to an entirely homogeneous group, the exhibition's form nevertheless excluded people with less prior knowledge of games. The presumption that people possess the necessary gaming capital to play original games is connected to the focus on providing an 'original experience'.

On the other hand, the museum staff and the museum's overarching mission statement strived to include other types of visitors, and staff looked for ways to provide contextualization. However, they ended up having to downplay those aspects in the face of the visitors and the experiential logic of the exhibition. As a process of translation, this shaped the exhibition to allow a limited understanding of game culture and the significance of games as history and heritage. The interactivity and playability of games thus became the dominating actor in the network of the game exhibit to which other actors conformed – games were enrolled (Callon, 1986) to serve these purposes. The exhibition was thereby configured in a way that translated games into interactive fun rather than as a culture with a deeper history and significance.

However, the interactive constitution of the exhibit was arguably a significant factor in making it an economic success. This convinced the management that video games should be part of TM's future work, including a permanent exhibition. Imparting the museum's credibility as a cultural heritage institution to the domain of digital games was a struggle shown in the differences of opinion between management and floor staff, where the high numbers of visitors finally convinced the management of the value of the medium. In an era when many museums struggle to sustain financial viability, their cultural impact is fragile and dependent on the public's affirmative reaction. Hence, positive feedback from visitors and press enabled the continued support of the exhibition, in contrast to what we normally witness – where power rests in the hands of museums to elevate everyday objects into the realm of cultural heritage.

Museum of Art and Digital Entertainment

The Museum of Art and Digital Entertainment (MADE), a small, relatively new museum, is located in the centre of Oakland, California. At the time of our study one entered through a ground-floor door, unlocked during Saturdays and Sundays, the days the museum was open. A sign outside welcomed and directed visitors to the second floor. Inside, it was instantly clear that a visitor had reached a sanctuary for video games and gaming hardware. Shelf upon shelf of neatly stacked games lined the walls, decorated with friendly signs asking, 'Please don't touch the collection', immediately imparting a view of the objects displayed as 'proper' museum artefacts; the 'see don't touch' imperative an echo of traditional museum ambience. Glass cases placed here and there displayed parts of the museum's hardware collection. The main exhibition at the time, *Women in game development*, took up a quarter of the wall space, where a long row of antique and more modern game consoles were rigged for playing a selection of games,

accompanied by signs telling visitors about the games and the women who had worked on their development.

Besides being a museum, MADE was also a library for video games, where for a small donation, visitors could play any game of their choice from the vast collection. Courses in game design were also held. The museum work thus focused on exhibition, preservation, and education, as expressed in MADE's four core goals:

> A. The preservation of historic artistic works in the digital media. B. The education of the public in the process of creation for digital works of art and video games. C. The exhibition and curation of individual artists and creators, their works, and their biographies. D. All exhibits should be playable: games are to be played, not viewed from afar or watched on video. (The MADE goals, from www.made.org)

These four goals were manifest in the museum's activities and operations, and in its understanding of games as playable works of art. MADE was entirely run by volunteers, although preparations were ongoing for the launch of a kickstarter[1] campaign to help finance the relocation of the museum to a more suitable site, as well as employing staff. MADE had 10–15 volunteers who came and went, working with exhibitions, curating the collection, fundraising, staffing the museum during opening hours, and teaching classes. It was a varied group, although it consisted predominantely of men in their 20s and early 30s. Most had no formal education in museum work or game studies and work thus often had an *ad hoc*, sporadic nature to it. The atmosphere at MADE was one of counterculture and the celebration of geekdom, and in general lacked expressions of professionalism. Games were revered and discussed intensely as art works and as being important in terms of history, as well as in more mundane ways, for example, simply as exciting consumer items:

> I think we [at MADE] generally fall into some set of game aficionados and we have a subculture view of games. (Informant 4, MADE)

As this informant implies, the volunteering organization of the workforce and the personal involvement in game culture contributed to an atmosphere of idealism at MADE. It had the feel of a museum built from the ground up by enthusiasts, all engrossed in and with a personal connection to this form of popular culture.

Visitors to MADE consisted mainly of children who took the free classes and visited the museum with their parents, along with young adults in their mid-20s and early 30s with a previously established interest in games:

> We have basically two main demographics, parents with children … and the other group is people who are roughly our age … who want to relive their old glories on the battlefield, they all want to play Mario Cart 64 or Golden eye like that. (Informant 5, MADE)

This informant was in his early 30s and in the quotation refers to both his age and the researcher's. While MADE does not keep visitor statistics, the staff all agreed that these two groups constituted their visitors, which corresponds to what we observed. People who sought out the museum mostly came with substantial knowledge about games and

gaming culture, or were children. Visitors often played games that they already knew and staff spent much effort trying to make visitors explore unfamiliar games. Showing old games to young children and thus preserving the history of games was a source of joy and the reason many of the informants continued the sometimes demanding work as volunteers for the museum.

At MADE, the games themselves could be considered the most influential actor. The museum staff (i.e. volunteers), via the museum's mission statements, allowed the interactive nature of games to be the guiding principle, and aligned their own work and agency with that notion of interactivity. There were, in general, fewer struggles at MADE than at TM, simply because everyone adhered to this power division. The museum's flat hierarchy distributed power more or less equally among the main human actors, but the strong belief in, and submission to, the mission statements among the staff allowed for a more stable network where volunteers worked as spokespersons for the games. In general, visitors were less influential in the network at MADE, although of course provided the financial base for the museum. Through classes, staff translated the importance of games to younger generations. A desire for other types of audiences and for legitimacy, however, exerted influence. The staff wished for an older, more 'serious' audience, whose presence would validate the cultural institution:

> I'd like this to also be on the tour of museums, the sort of museum people who like to go to museums and appreciate art visit. (Informant 2, MADE)

In the preparations for the kickstarter-campaign, this striving for legitimacy came to the fore as the museum searched for a new, larger, and better-looking venue in a more respectable part of town where new kinds of visitors could be attracted to the museum.

Games were thought to be constructed as 'proper' culture or art in the exhibition work of museums, especially in particular museums with high cultural status, as in the following statement:

> … once something has been featured in institutions like the Smithsonian I [think] that it basically cements the status as art right there *laugh*. (Informant 1, MADE)

While striving to present games as a validated museum concern, the museum's day-to-day work consisted less of exhibiting games and more of grant-supported classes aimed at children and youth. The staff argued that by introducing youth to older games, the legacy of gaming could live on through future generations. This linkage between past and present, through the material objects of games and game consoles, was central to MADE's work. Everyone at the museum pulled in the same direction, in order to preserve a past that they felt to be threatened.

The *Women in game development exhibition* (from now on WGD) contained 8 games made between 1984 (King's Quest 1) and 2007 (Portal), all playable on original hardware. Along with each game a placard informed visitors about the game as well as the specific woman involved in making it and her role in the development team. That you could play the games was key to the construction of games as appropriate for a museum, or 'art', as this informant frames it:

> Exhibiting games has a whole host of its own challenges and specialties, it's an interactive work of art so to truly exhibit it you have to have it playable. You have to allow people to actually interact with it. (Interviewee 2, MADE)

The exhibition, originally launched for the (US) women's history month ran from February to November 2015. The choice of topic for the exhibit was in part a conscious reaction against an ongoing online backlash movement on gender representation in game culture at the time, which ran under the hashtag #gamergate:

> The women in the game development exhibit came a lot out of #GamerGate actually, not necessarily as a direct response but more like a statement against that. (Interviewee, 2 MADE)

While *WGD*, like *GameOn 2.0*, focused on games as playable experiences, the structure of the exhibition placed it instantly in a social and societal context, even if visitors could choose to ignore the signage in favour of only playing the games. In a period when people under the #gamergate hashtag were harassing women in games, the *WGD* exhibition could be seen as a cultural counterpoint to the hostile and sometimes misogynist taint that game culture had taken.

At MADE, actors' interactions produced a different network than at TM, with less unresolved conflicts and internal stresses, and fewer competing notions of games and game culture. Problematic features of game culture were, on the one hand, brought to the fore in the *WGD* exhibition, but were at the same time neutralized and disarmed through highlighting success and progress within these areas, so-called survivor bias. MADE presented an obvious counterpoint to the gamergate debate, and presented an image where women were always part of game design, without resistance or pushback. It can therefore be argued that MADE showed a glossed-over version of game history. This was done through a selective recruiting of both artefacts and human actors, exemplars of industry pioneers. Fitting them into the exhibition network therefore geared it towards a specific type of understanding of gaming history.

Playability as a guiding principle translated game culture into a format accessible in museum spaces. But whereas the *WGD* exhibition managed to be political and critical while keeping the playability focus, at TM the interactive nature of games made playability dominate over the contextualization of games. This made it difficult for visitors to experience games as anything other than entertainment products or nostalgic revelry. At MADE, even if visitors chose to disregard the signage and simply play the games, the framing of the exhibition as games made by women at least offered visitors an image of the fact that women clearly are part of game development. So while not moving away from the original experience or focus on the material, the exhibition was in its very structure connected to the history and context of digital games.

Discussion

Traditionally, by choosing which objects to display, how to display them, and what meaning to give them in the context of an exhibition, museums control the museum experience (Hooper-Greenhill, 1992), thereby shaping our understanding of cultural

heritage. However, what we have attempted to show is that the shape of game exhibitions is not merely a result of curating, design, and game history. Rather, there are many material and immaterial properties of the actors involved that mould the exhibitions. Internal struggles over the position of games as suitable for the museum's operation, visitor demography, prior knowledge of games, as well as economy and business models, staff and volunteers' commitment to game culture, interactivity, and age-rating for games are all indispensable for understanding how games are being configured as exhibitable culture. The visitors themselves are, naturally, key actors in the configuration of such networks, and important in the translation of games within the museum context. They provide both economic means for the museums (through entrance fees, and in the case of MADE, direct funding of exhibits through donations) as well as being key to the play activities that are core parts of the exhibitions. Through the work in these museums, by the integration of heterogenous actions into exhibition networks, we can see how the struggle over gaming's past becomes a struggle over gaming's present; or how gaming comes to be cultural heritage.

It should be highlighted that the results draw on case studies of two museums exhibits, both from a western context. Both adhere to the 'original experience', which has so far dominated in preservation practices of digital games (Lowood et al., 2009; Swalwell, 2013). Yet, other types of exhibits exist, and we are thus not trying to generalize across the board. However, the original experience logic seems to dominate the discussion on games in museums and we thus believe that our results offer interesting insights into the current state of digital games as cultural heritage and exhibitable culture.

While visitors might see exhibits as a coherent whole our analysis rather shows how different actors come together in forceful translation processes where some have more influence and power over the shape of the network than others. Specifically, we want to point to how the games themselves – as material-digital artefacts – influence the ways in which they are incorporated into exhibition networks, and how floor staff at the two museums functioned as spokespersons supporting the agency of games. Thereby games are agentive in how they are appropriated and sacralized as cultural heritage in museum institutions.

In *GameOn 2.0's* decontextualized format games were exhibited as playable and enjoyable interactive artefacts in their own right. Through putting parentheses around the cultures and people of these games, *GameOn 2.0* presented a more palatable image of gaming than might otherwise have been the case. In contrast, at the *WGD* exhibition, games were contextualized into ongoing struggles regarding female gaming and game design. While dealing with a highly contentious issue it was basically represented as a solved issue. This ignored the historical and current struggle of women in game development. Survivor bias meant that successful female game designers could be presented as having been part of the industry throughout, portraying it in a more positive light than potential alternative representations of this history.

Despite their differences, we want to point to a common denominator between the two museums. In both settings, games go through a forceful translation in order to interact with the institution; to become part of the network of games as cultural heritage. This forceful transformation results in a network of actors where contested aspects of games and gaming culture are being excluded – they are *lost in translation*. In order for the

network to reach at least a semi-stable form, where the exhibits are possible within a museum context, the various actors interact in ways that scrub games clean of their contested nature. This results in exhibits where games lose much of their social meaning and give rise to understandings of game history that gloss over problematic areas. Instead, games are selectively presented as an enjoyable, friendly, and playful experience for the whole family.

While translating video games into cultural heritage, the process of making games exhibitable loses track of games *as* culture by focusing on physical artefacts and interactive, playable fun. It de-emphasizes them as situated *in* our culture, and *of* our culture – how games come to be and be experienced. Thus games 'in/as/of culture' (O'Donnell, 2014: 410) are lost in translation. Selective recruitment of games and game culture can thus be seen as a powerful transformation of a politically sensitive domain into a non-threatening representation. This contrasts with how heritage studies have argued that we should treat such subjects: '… we need to embrace the vile along with the valiant, the evil with the eminent, the sordid and sad as well as the splendid. For the whole of the past is our legacy' (Lowenthal, 2015: 610).

ANT claims that networks are never stable and constantly in flux – and by extension that there are other possible ways of presenting games in museums without losing sight of critical aspects of this medium. We argue that, in our cases, the process of video games' entry into museums and their subsequent transformation into cultural heritage is problematic, in that constructing a past, present, and future of gaming hides negative aspects. In the attempt to make games sacred, the profanity of games, the everyday as well as dark sides of game culture, is hidden from view. We argue that museum exhibits could and should be able to exhibit games, while admitting to the profaner aspects of game culture.

Note

1. A crowd-funding website where projects can solicit funds from the general public.

ORCID iD

Lina Eklund [iD] https://orcid.org/0000-0002-8086-4962

References

Barwick J, Dearnley J and Muir A (2011) Playing games with cultural heritage: A comparative case study analysis of the current status of digital game preservation. *Games and Culture* 6(4): 373–390.

Bennett T (1995) *The Birth of the Museum: History, Theory, Politics* (1st edn). London: Routledge.

Bergmark K and Bergmark A (2009) The diffusion of addiction to the field of MMORPGs. *Nordic Studies on Alcohol and Drugs* 26(4): 415–426.

Boyatzis RE (1998) *Transforming Qualitative Information: Thematic Analysis and Code Development*. London: SAGE.

Buckingham D (2000) *After the Death of Childhood: Growing Up in the Age of Electronic Media*. Cambridge: Polity Press.

Byrne S, Clarke A, Harrison R, et al. (2011) Networks, agents and objects: Frameworks for unpacking museum collections. In: Clarke A, Harrison R and Torrence R (eds) *Unpacking the Collection. One World Archaeology*. New York: Springer, pp. 3–26.

Callon M (1986) The sociology of an actor-network: The case of the electric vehicle. In: *Mapping the Dynamics of Science and Technology*. London: Palgrave Macmillan, pp. 19–34.

Cameron F (2008) The politics of heritage authorship: The case of digital heritage collections. In: Kalay YE, Kvan T and Affleck J (eds) *New Heritage: New Media and Cultural Heritage*. London: Routledge, pp. 170–184.

Cohen S (2002) *Folk Devils and Moral Panics: The Creation of the Mods and Rockers*. London: Routledge.

Consalvo M (2008) Crunched by passion: Women game developers and workplace challenges. In: Kafai YB, Heeter C, Denner J, et al. (eds) *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*. Cambridge, MA: MIT Press, pp. 177–191.

Consalvo M (2012) Confronting toxic gamer culture: A challenge for feminist game studies scholars. *Ada: A Journal of Gender, New Media, and Technology* 1: online. Available at: https://adanewmedia.org/2012/11/issue1-consalvo/ (accessed 13 May 2019).

Corbett S (2006) Digital heritage: Legal barriers to conserving New Zealand's early video games. *New Zealand Business Law Quarterly* 13(5): 48–71.

Dolwick JS (2009) 'The Social' and beyond: Introducing actor-network theory. *Journal of Maritime Archaeology* 4(1): 21–49.

Durkheim É and Swain JW (1965) *The Elementary Forms of the Religious Life*. London: Collier Macmillan.

Haddon L (1988) Electronic and computer games: The history of an interactive medium. *Screen* 29(2): 52–73.

Heinonen M and Reunanen M (2007) Preserving our digital heritage: Experiences from the Pelikonepeijoonit Project. In: Impagliazzo J, Järvi T and Paju P (eds) *History of Nordic Computing 2*. Berlin: Springer, pp. 55–64.

Hooper-Greenhill E (1992) *Museums and the Shaping of Knowledge*. London: Routledge.

Juul J (2010) *A Casual Revolution: Reinventing Video Games and their Players*. Cambridge, MA: MIT Press.

Kurin R (2004) Safeguarding intangible cultural heritage in the 2003 UNESCO Convention: A critical appraisal. *Museum International* 56(1–2): 66–77.

Latour B (2005) *Reassembling the Social – An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.

Law J and Hassard J (eds) (1999) *Actor Network Theory and After*. The Sociological Review Monographs. Oxford: Blackwell/Sociological Review.

Lowenthal D (2015) *The Past is a Foreign Country – Revisited* (2nd edn, revised). Cambridge: Cambridge University Press.

Lowood H, Monnens D, Vowell Z, et al. (2009) Before it's too late: A digital game preservation white paper. *American Journal of Play* 2(2): 139–166.

Minichiello V, Aroni R, Timewell E, et al. (2000) *In-Depth Interviewing: Researching People* (2nd edn). Hong Kong: Longman Cheshire.

O'Donnell C (2014) On Balinese cockfights: Deeply extending play. *Games and Culture* 9(6): 406–416.

Ong CE (2014) Rethinking (in)tangible heritage: Social constructionism and actor-network theory approaches. In: *XVIII ISA – Facing an Unequal World, Challenges for Global Sociology*, Yokohama, Japan, 13–19 July 2014.

Pasquier D, Buzzi C, d'Haenens L, et al. (1998) Family lifestyles and media use patterns: An analysis of domestic media among Flemish, French, Italian and Swedish children and teenagers. *European Journal of Communication* 13(4): 503–519.

Pierce D (2013) *The Survival of American Silent Feature Films, 1912–1929*. Washington DC: Library of Congress.

Pinchbeck D, Anderson D, Delve J, et al. (2009) Emulation as a strategy for the preservation of games: the KEEP project. In: *DiGRA 2009 – Breaking New Ground: Innovation in Games, Play, Practice and Theory*. Brunel University, London, UK, 1–4 September 2009.

Prax P, Sjöblom B and Eklund L (2016) *GameOff – A critical analysis of a digital game exhibition*. Stockholm Internet Research Group – Working Paper Series, SIRR16(1).

Shaw A (2010) What is video game culture? Cultural studies and game studies. *Games and Culture* 5(4): 403–424.

Sköld O (2015) Documenting virtual world cultures: Memory-making and documentary practices in the *City of Heroes* community. *Journal of Documentation* 71(2): 294–316.

Sköld O (2018) Understanding the 'expanded notion' of videogames as archival objects: A review of priorities, methods, and conceptions. *Journal of the Association for Information Science and Technology* 69(1): 134–145.

Swalwell M (2013) Moving on from the original experience: Games history, preservation and presentation. In: *DiGRA 2013: DeFragging Game Studies*. Atlanta, GA, USA, 26–29 August 2013.

Van der Hoeven J, Lohman B and Verdegem R (2007) Emulation for digital preservation in practice: The results. *International Journal of Digital Curation* 2(2): 123–132.

Author biographies

Lina Eklund has a PhD in sociology and is a lecturer at the Department of Informatics and Media at Uppsala University, Sweden. She is interested in the impact of digital technology on social relations. Her current work focuses on uses and practices of digital technologies in managing families, the impact of anonymity on digital sociality as well as the role of digital games in museums. She is a founding member of the Interdisciplinary Stockholm Internet Research Group, sirg.se. Recent publications include: 'Digital gaming and young people's friendships: A mixed methods study of time use and gaming in school', co-authored with Sara Roman, in *YOUNG: Nordic Journal of Youth Research* (2019).

Björn Sjöblom is a senior lecturer at the Department of Child and Youth Studies at Stockholm University. He works in a variety of areas related to discourse and interaction, both by and about children and youth. For the most part, his studies focus on interaction in various forms of digital media, especially in games. His research includes studies of teenagers in internet cafés, interaction in video-mediated gaming (such as on Youtube), and representations of children in digital games. Of special interest are also questions of digital media as cultural heritage, and of young people's relationship to e-sport.

Patrick Prax is a lecturer at the Department of Game Design at Uppsala University. He wrote his dissertation on the co-creation of digital games as alternative media and he is interested in how players can change the games they are playing to reflect an alternative perspective to a hegemonic capitalist world view. He is a board member for the Cultural Heritage Incubator of the Swedish National Heritage Board. Recent publications include: 'Between global competition, marketing, deviant play, and cheating – High-end raiding in World of Warcraft', in *Communication Sociali* (2018).