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RESEARCH PUBLICATION

Drawing Things Together: Understanding the Challenges and Opportunities of a CrossLAM Approach to Digital Game Preservation and Exhibition

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ABSTRACT

Digital games have become a central part of contemporary culture and society. At the same time digital games provide numerous challenges for collections, preservation efforts, documentation, and exhibitions. This article investigates the challenges and opportunities implicit in LAM convergence and collaboration with actors outside of the LAM-sector itself. These actors are stakeholders of various kinds within game culture: game makers and industry, players, and rogue archives. More specifically, we turn to the collaboration in two Nordic museums in their work with digital games: The Finnish Museum of Games and the National Swedish Museum of Science and Technology. We draw on their actual efforts at collaboration between LAM-institutions and outside stakeholders and analyze them through the lens of political participation and agonistic pluralism. These concepts come from an interpretation of the participatory agenda in cultural policy that aims to resolve inconsistencies in the participatory agenda specifically around neoliberal logics of participation. The paper asks: How can the preservation of digital games be supported through participation of stakeholders inside and outside the LAM sector, and what policy changes would such collaborations require?

This paper concludes that political participation and agonistic pluralism are useful concepts for the modeling and understanding of game preservation and provide a possible solution for the paradoxes of the participatory agenda in Nordic cultural policy. Our comparison of the work in two museums shows that approaches that empower participants can lead to successful and surprising exhibitions not possible without the sharing of curatorial power. Policy regulating LAM-institutions should change in order to accommodate players, makers, and rogue archives as participants in game preservation efforts. For the future the participatory agenda in cultural policy should be interpreted through the lens of political participation and agonistic pluralism as calling for truly empowering participants in order to elevate participation in game preservation from lucky accidents to a political participation policy.

Keywords

Political participation | digital games | preservation | exhibition | playercreated content | agonistic pluralism | power | collaboration | LAM sector | cultural policy



INTRODUCTION

Digital games are a central part of contemporary culture and society that pose specific problems for preservation. Their popularity and impact put into relief the numerous challenges of digital game preservation regarding for example collection, curation, documentation, and exhibition practices (MacDonough, Fraimow, Erdman, Gronsbell, & Titkemeyer, 2016; Olgado, 2019). In the Nordic region, digital games are played by a majority of the population (see for example Findahl, 2014; Kinnunen, Lilja, & Mäyrä, 2018) and are important cultural and economic commodities. The Nordic countries also continuously host gaming events with a global reach, such as the digital festival *Dreamhack*. Digital games are also increasingly being recognized as part of a digital cultural heritage, with LAM institutions and private actors of various kinds engaging in efforts to preserve games and game culture for the future.

Previous studies of game preservation argue that if digital games and documentation of game-related activities and settings are to remain accessible in a meaningful sense beyond our current times, research-led cross-LAM collaborations need to be conducted (Lowood, 2004; Sköld et al., 2018;McDonough et al., 2010). Research into efforts of game preservation by LAM institutions has also called for more developed collaboration between different stakeholders within game culture as a whole--including players, fan archives, and the games industry. Newman and Simons (2018) state in their white paper that it is essential that the videogame industry (trade bodies, publishers, developers) and player communities work together. This need for collaboration is mirrored by Sköld (2018:129) when he points out, here from the perspective of archiving games, that "[c]ollaboration between institutions and videogame communities appears to be a potent approach to collecting videogame-community social media" and that "videogame communities possess a considerable capacity and expertise regarding the production and annotation of many aspects of community social life".

The merits of previous research notwithstanding, there is a lack of studies that explore participatory and collaborative approaches to game preservation from the viewpoint of policy. Policies are powerful tools of promotion and prohibition that determine the space of possible actions, modes of work, and prioritizations in preservational ventures. This paper aims to address the research gap by exploring how participation and multi-stakeholder collaborative efforts in the realm of game preservation can be rendered in such practical and theoretical terms that facilitate progressive political policy-making and help to resolve some of the paradoxes that early research work has pointed towards. The paper asks: how can the preservation of digital games be supported through collaboration with stakeholders inside and outside the LAM sector, and what policy changes would such collaborations require? Case studies of game-centered preservational and exhibitional work at the Finnish Museum of Games and the



^{1.} This paper discusses digital games exclusively, and use "games" and "digital games" interchangeably.

National Swedish Museum of Science and Technology make up the empirical foundation of the paper. The case data is analyzed and interpreted using a framework centered on the notions of political participation and agonistic pluralism. Due to policy (and policy work) being a common baseline component of preservational work in the LAM sector, the paper is well-situated to deliver actionable contributions to how the relationship between policy and game preservation and exhibition in a cross-ALM setting can be understood, and how game-focused policy work can be furthered.

PARTICIPATION IN CULTURAL POLICY AND GAME PRESERVATION

This paper takes a particular interest in *participatory aspects of* preservational processes. The discourse about participation in the discipline of cultural policy highlights that especially in the Nordic countries legislators and institutions like the UNESCO expect museums and LAM institutions to focus on participation of some kind. In this paper we use Mulcahy's (2006: 320, 329) outline of cultural policy as the "intentionality" of a structured set of goal-oriented activities geared towards "creating public spheres that are not dependent on profit motives nor validated by commercial values". Our understanding of cultural policy is also informed by the set of expectations called the "participatory agenda" in previous work (for example Brandrup Kortbek et.al. 2016). The aims of the participatory agenda are typically centered around democratization, education, and upward social mobility of visitors. However, previous research has found that these expectations are frequently formulated in neoliberal logics of access to cultural services and limit participation to alternative ways of reading art and culture:

Taking a closer look at the argumentation in these policy papers, it is however also obvious that the democratic vision is mixed up with a corporatist vision of social inclusion, as well as a corporate vision of private enterprise. (Sørensen, 2016:5)

Previous research has pointed out that these policy texts can be paradoxical, not offering a lot of practical guidance, and even purposefully de-politicizing participation. Sørensen (2016: 6) describes the aims of the participatory agenda as: "A shift from 'Bildung' to employability" and Brandrup Kortbek et.al. (2016: 20) echo this sentiment and point out the need to challenge "the participatory agenda to take a more – 'radical' – democratic direction", grounded in ideas of a radical democracy (Laclau & Mouffe, 2014; Mouffe, 2013). In other words: "Participation is not simply about joining the game, it is also about having the possibility to question the rules of the game." (Sternfeld, 2012:4) The participatory agenda is not only part of the cultural policy of the Nordic countries. The same conceptual inconsistencies and paradoxes can be seen in for example UNESCO's very definition of a museum:



Museums can play a leading role in bolstering the creative economy locally and regionally. Museums are also increasingly present in the social sphere, acting as platforms for debate and discussion, tackling complex societal issues and encouraging public participation.

UNESCO supports developing countries using museums' potential to foster social cohesion, notably among local communities and disadvantaged groups. (https://en.unesco.org/themes/museums; accessed 2019/03/22)

This can be read as a recognition of power imbalances and could point towards a focus on agonistic struggle. On the other hand, it contradicts this concept of struggle, and instead formulates social cohesion as an aim which can be read as a call for the adaption of minorities to mainstream culture, downplaying the role of historical and current conflicts. There seems to be no concept of exploitation and discrimination, no understanding of the fact that disadvantaged groups have their own valuable heritage, and no concept of resistance. As a consequence of these conceptual contradictions several authors point towards the limited practical success of participatory exhibitions and "A gap between good intentions on the policy level of convergence and the various paradoxes of everyday reality." (Sørensen, 2016: 6)

In this study we argue that the participatory agenda constitutes a basic ambiguity as well as a set of more specific paradoxes that emerge when the agenda is made into practice. (Brandrup Kortbek et.al., 2016: 20)

However, my own research into participatory projects across cultural institutions has shown that in practice the historical and embedded nature of those imbalances can render even the best conceived and facilitated projects problematic when assessed in terms of democracy and ownership (see Kidd, 2009, 2011a). (Kidd, 2011b)

This means that a kind of participation that explicitly empowers participants could be a viable alternative and theoretical tool. The discussion of empirical examples in this article aims at providing practical examples for how such participation of third parties in LAM-sector preservation efforts can practically work, as explorations of the various form such efforts can take (see Sköld, 2018).

In order to stay focused on the power relationships between the museums and other relevant collaboration partners we turn now to the concept of *agonistic pluralism* and the possibility of participants to defend their interests and perspectives (Mouffe, 2013). Agonistic pluralism is an alternative to consensus as an aim for a democratic society. A democratic society that aims for agonistic pluralism will attempt to create an arena for fair and respectful, violence-free, *struggle* instead of consensus. Agonism requires a struggle between equals. The overpowering of a party who has no standing or power to enforce their interest in a given process is not agonistic. Similar frameworks have been used



in studies of power positions in political participation (Arnstein, 1969; Carpentier, 2011, 2016). Participants in this perspective are only those who have the possibility to defend their interests, to struggle against other stakeholders, and to change the real distribution of power. This understanding of participation explicitly excludes equal access or mere interaction of otherwise disempowered audiences and has been used for discussing co-creation and participation in the area of game design (Prax, 2016a). As a somewhat simplified theoretical tool for the evaluation of the power positions of different participants Arnstein's ladder of citizen participation (1969) (figure 1) can be used to indicate the power position of a participant in a given process.

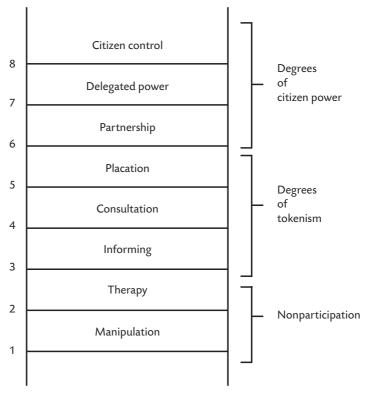


Figure 1 Arnstein's ladder of citizen participation (1969)

As the metaphor of the ladder indicates, the higher the number of steps on the ladder are for a given process the more participatory the process is. The ladder has eight steps grouped into three sections, ranging from nonparticipation over tokenism to citizen power, the latter indicating that the participants are the sovereign of the process. That said, the point of the ladder in this context is not that each participatory process should aim to reach the top of the ladder. Not every element of game preservation needs to be run by participants and this paper does not aim to displace LAM professionals. Agonistic pluralism does however require that participants have some standing which excludes the level of nonparticipation. While an aim for full participation in preservation could be the level of partnership (6), also placation (5) and consultation (4) could be relevant here. Consultation (4) "can be a legitimate step towards their full participation" but "offers no assurance that citizens concerns and ideas will be taken



into account." (Arnstein, 1969:219). Instead consultation is designed by power holders to show that they have gone through the motions of participation. Arnstein understands placation (5) as a stage or participation where participants have some degree of influence like a number of seats on a board but can be "easily outvoted and outfoxed" (1969:220). Another example she gives are planning committees that allow participants "to advise and plan ad infinitum but retain for power holders the right to judge the legitimacy or feasibility of the advice." (Arnstein, 1969:220). Finally, partnership (6) is characterized by real negotiation where participants "have some genuine bargaining influence over the outcome of the plan" (Arnstein, 1969:221-222).

The concepts of collaboration and participation are interrelated. In this text, we use *collaboration* as an overarching category to denote various ways of working together with others. *Participation*, on the other hand, places critical focus on the power relations between different actors and is thus in line with the conceptualization of political participation used by both Mouffe and Carpentier. The relationship between collaboration and different sorts of participation have been discussed elsewhere (e.g. Brandrup Kortbek et.al.,2016; Jenkins & Carpentier, 2013), but our focus on power relations places the emphasis on challenging "the representative, identity-borne and consensus-typified democracy/community in favour of a lived, diverse and also paradoxical and agonistic or dis-sensual togetherness" (Sørensen, 2016: 9).

DIGITAL GAMES AND TROUBLES OF PRESERVATION

Working with digital games preservation, three main challenges have been identified in previous research. These are key to understanding the necessity of collaboration and participation both within and outside the LAM sector.

Challenge 1: games as born-digital objects

Digital games are increasingly published and distributed digitally. This is not only the case for nearly every game developed for mobile devices, but also valid for computer and console games that are currently distributed via download services to an almost universal degree. As a consequence, there are fewer physical objects emanating from the production of new games, like retail boxes and cartridges, that can be collected and preserved. The interactions between players in games, as well as communication within communities are similarly becoming more dependent on digital media. Digital games thus epitomize the challenges and opportunities brought to the LAM sector by social media, intangible cultural heritage, and hegemonic modes of increasingly digitised interactions and processes in the broader scene of present-day social and cultural life. One central challenge here is that of choosing what to preserve out of a vast abundance of born-digital player-created content. With the explosion of digital texts related to games it is becoming an increasingly complex task to choose what to preserve, something that can only be managed with the help of experts from



inside gaming communities. In addition, the practical aspects of preservation for born-digital culture are fraught with issues surrounding how to preserve, since EU-level laws prohibit transfer and copying of digital material even for preservation purposes. Additionally, laws around preservation often overlook born-digital content leaving LAM actors powerless in these situations. Therefore, collaboration with producers becomes increasingly necessary.

Challenge 2: games as interactive

Another core attribute of digital games is their interactive nature which in turn constitutes a complex preservational challenge. Games are a "text" that requires player input in order to be traversed (Aarseth, 1997). This means that games are emergent; they manifest themselves differently to different players depending on how they interact with the game. This interactivity and participation of the player in actualizing the game goes beyond active reading and meaning-making (Barthes, 2001). The interactive and emergent qualities digital games highlight the need to include playable games in game exhibitions in the LAM sphere (Guins, 2014; Lowood et al., 2009; Newman, 2012). As it is difficult to provide clear-cut representations of what a game is outside of it being played it makes sense to take this into account when preserving games, thus allowing future generations to explore games and potentially recreate them in their own way. However, the suggestion has never been to solely rely on this mode of exhibition, and recent literature is increasingly pointing out the limitations of this approach (Eklund, Prax & Sjöblom, 2019; Newman & Simons, 2018; Nylund, 2015, 2018; Sköld, 2015, 2018). The three main criticisms of letting the notion of "original experience" inform LAM-work in the digital-game arena are: (i) playable games exclude players who do not have the necessary skills or time, (ii) playing a game in a museum setting without other layers of contextualization is not enough to communicate the socio-cultural relevance of it or to show the various player practices that have developed around it (Prax, Sjöblom, & Eklund, 2016), and (iii) the difficulties facing digital-game preservation are so great that they question the feasibility of keeping digital games in LAM-collections playable, necessitating a preservational strategy focused on the collection and curation of game-related materials other than the actual game itself (see e.g., Newman, 2011).

Digital games are also open to contradictory and subversive kinds of play which embody a variety of player values and approaches to the game. Competitive play is difficult to even compare to casual play, even if they are happening within the confines of the same game. These modes of play have vastly diverging practices of meaning-making that emerge in the interaction between player activities and the characteristics of the digital game being played. This centrality of the player for the definition of what this game and its play are makes it impossible to exhibit a game and expect it to stand for all the varying practices of play. This is a strong



^{2.} This is of course not just a characteristic and a challenge of game-focused museum efforts but of museum efforts generally (Greenhill, 1992).

argument for including players in the process of defining and creating games as cultural heritage. This argument is also supported by the intervention of the concept of intangible heritage in other areas (see e.g., Cook, 2012). However, in the area of digital games the involvement of the player in the creation of games as heritage does not stop at play alone, as shown below.

Challenge 3: games as co-created/participatory culture

Another preservational challenge is that digital games are open to being modified and changed by players and that the participatory culture around games can even change what the game is (Pearce, 2009). Players mod, redesign, reinterpret, and in many other ways change how games are played; both for themselves and for others. Some of the world's most popular games like *DoTA* and Counter Strike were originally designed by players. This co-creation of the design of games can even be understood as a struggle against the design vision and authority of the game publishers (Prax, 2016b), a struggle that potentially includes the use of digital rights management (DRM) systems and other means of technological control in an attempt to limit the impact of player creativity (Kow & Nardi, 2010). For the cultural policy that guides preservation and exhibition of games, this means that there is yet another blurring of authorship, and challenges arise regarding the determination of what materials are supposed to be preserved and which version of a game that is supposed to be the focus of preservation efforts. Player participation therefore goes further than just interactivity in play, and player-creators need to be considered co-creators of the games they are modifying, hacking, subverting, and re-making (McDonough, 2011, 2012; McDonough et al., 2010). These issues further complicate participation in preservation processes.

APPROACH

The empirical basis of the paper are the investigation and participation by the authors in museum work practices at the Finnish Museum of Games (Suomen Pelimuseo; http://vapriikki.fi/pelimuseo) and the National Swedish Museum of Science and Technology (Tekniska Museet; https://www.tekniskamuseet.se). During the last few years both museums have developed their own exhibitions of digital games in Finland and Sweden respectively. The authors of this paper have, in various ways, been involved in the museums' work with digital games both with underlying research as well as more hands-on creation of game exhibitions. The empirical material used in this paper has been collected for previous research projects concerning the exhibition of digital games at both museums (Eklund et.al., 2019; Prax et.al., forthcoming; Nylund, 2018) while the connecting frame of political participation has emerged through our analyses of this data for the study at hand. As researchers, we have critically examined practices at the museums and well as our own perspectives and have come across a number of cases in the empirical data that are illustrative and together point towards a possible solution for the paradox of participatory preservation



of games. We consider our reflexively-framed 'emic' (Harris, 1976) empirical approach to be of great usefulness in the pursuit of gleaning further insights into cross-LAM approaches to game preservation and their relationship to and implications for cultural policy and cultural policy-making.

In the article we draw on specific instances, or cases, chosen from our collected empirical data that highlight some of the challenges and opportunities in LAM-institutions' collaboration with outside stakeholders in this field. These examples are neither meant to be representative of the respective exhibition nor game-related museum practices generally but instead have been chosen as particularly relevant examples for showcasing the possibilities of participation in the process of curating game exhibitions and working with preservation of games in a museum context, and by extension also provide insights into third party participation in the LAM-sector more generally. They are also not meant to show that the respective institutions are especially advanced in their approach to third-party participation. In order to show both the limitations of this approach to participation and failures of the respective museums we also include a case of what we consider to have failed in the participatory process. This means that they are extreme cases which have been chosen to illustrate a point and not for generalizability (Flyvbjerg & Bryant, 2003) and that the focus of the comparison between these cases is the way in which the museums worked with third parties such as other LAM actors, game creators, players, rogue archives, and researchers. As such extreme cases we have selected them to serve as pointers towards what a practice of participatory preservation with a focus on agonistic plurality might look like and not as definite cases to emulate or conclusive evidence of the viability of such practices. The analysis of the data gathered from the Finnish Museum of Games and the National Swedish Museum of Science and Technology will be informed by the notions of political participation and agonistic pluralism as outlined above.

Suomen Pelimuseo

Suomen Pelimuseo was initially supported by a crowdfunding campaign arranged in 2015, which collected 85,860€ from 1120 backers. With the help of the campaign, funding for a permanent museum in Vapriikki Museum Centre, with special emphasis on Finnish game heritage, was acquired. Suomen Pelimuseo was built by involving game developers and the gaming community in the museum's curatorial processes. Since 2017, Suomen Pelimuseo has been dedicated to exhibiting and preservation of Finnish games. One of the exhibited elements at the Suomen Pelimuseo is a selection of 100 Finnish games. The games, displayed throughout the 400 square metres of exhibition space, were chosen by a team of experts, including university researchers, hobbyist collectors, game journalists, and museum curators, but also game developers and designers. The 100 games include a wide variety of digital and analog games, with digital games making up 70 % of the selection. Of the 70 digital games on display, all but thirteen are playable. In addition to playable games,



interviews, documentaries, objects, design material, and other contextualizing material are also on display. (Heinonen, 2017.)

One of the authors of this paper has been involved in the Suomen Pelimuseo project since 2015, first in coordinating the crowdfunding campaign, and later as a researcher, producer, and curator. The author has had experience with working in museums since 2011. Work tasks at the Suomen Pelimuseo have included creating the theme and scope for the exhibition together with a team from Vapriikki Museum Centre, contacting dozens of Finnish game developers and curating various studio exhibitions.

Tekniska Museet

The study of digital game preservation at the Suomen Pelimuseo will be compared to museum work practices at Tekniska Museet, located in Stockholm and established in 1923. Tekniska Museet is a well-established institution with a long history and high status as a national museum. Since 1936 it 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 with event planning, curation, exhibition, research, staff issues, *etcetera*. The museum is one of several non-profit, national museums in Sweden. It is mandated to take responsibility for compiling and presenting the technical and industrial heritage of Sweden and tasked by the government to develop and convey knowledge and experiences of this cultural heritage and provide perspectives on social development.

Tekniska Museet has been working with digital games for a few years and is at present taking steps to include more outside stakeholders in its current and future game-related exhibitions, for example in their permanent exhibition, *Play Beyond Play*.

Three of the authors spent part of their working weeks during a four-year period (2014-2018) working in a research project dedicated to bridging academic research and museum practical work. Several of the authors were involved in the production of the exhibition *Play Beyond Play* as researchers. The project was funded by The Swedish Arts Council and the researchers took part in writing and submitting the application. During the project the authors conducted research on digital games and on how to work with and exhibit digital games. They also, together with the museum staff, organized a series of symposia with the explicit goal of increasing collaboration between a wide variety of stakeholders such as The Swedish National Library, other museums dedicated to games both Swedish and International, the Swedish game industry, players and community representatives, researchers, the civic sector, and more. As researchers, our work has frequently been critical of the museum's work, as exemplified in previously published articles (Eklund, Prax & Sjöblom, 2019). The data for this project consisted of a set of twelve interviews at two different game museums, observations of several exhibitions as well as the



continuous involvement with the museum's work at game preservation and exhibition.

ANALYSIS

Players, fans, and co-creators

The first potential participants in game preservation and exhibition are players, fans, and co-creators. This category includes productive players who shape both gaming culture as well as the games themselves. Examples for including players as participants into the making of a game exhibition come from Play beyond Play at Tekniska Museet. The curators contracted players that had been identified as interesting and asked them to submit videos of themselves where they explained how games were relevant to them specifically. For example, one video told the story of a self-declared game addict in recovery. Another one explained how a player co-creator had been working for free for a games company who profited from his labour. These videos highlighted issues of games as culture that would have been difficult to communicate without this collaboration. While the contact with these players was initiated by the researchers who worked for Tekniska Museet the players had full freedom to decide what they wanted to say in their videos. On the other hand, Tekniska Museet kept full curatorial control over how and if the videos were shown in the exhibition. This means that in terms of the power relationship, players were free to propose content but that the museum had final say. In Arnstein's ladder this process would reach the level of placation (5). We can see this inclusion of players as them making donations to the museum, which the museum then chooses to use or not use in the exhibition. That said, the player recordings in the end made up a considerable part of the fairly small initial exhibit and their videos were included in the way in which they had been submitted, in a prominent space close to the entrance of the exhibition. It can be argued that their discussion of issues around games that stretch beyond play are central to the exhibition and while they had little influence on the outcome of the curatorial process (and no insight into it) their perspectives and input was valued and respected by the museum.

Another attempt at Tekniska Museet to include the voices of players in preservation was a solicitation of player stories around games. The museum advertised online and in a game-related exhibition for visitors to submit their own stories and memories from digital gaming. However, the call resulted in few submissions. This approach cannot be understood as full political participation but can instead be classified as consultation (4). It is more in the line of traditional donations from the public to a museum. Players likely did not know what the museum would do with the stories or how important they could be for preservation as their contribution to the process stopped as soon as they sent in their written text.



The games industry

The games industry and game makers in general are relevant stakeholders in games preservation (see e.g. Bachell & Barr, 2014; Kraus & Donahue, 2012). It can be an invaluable source of information about how and why a given game was made and they can share objects like artwork or earlier versions. On the other hand, the industry might have specific aims with their engagement and a more powerful negotiating position in relation to the LAM sector to start with (potentially even because the LAM sector is relying on funding from the industry for specific exhibitions).

Suomen Pelimuseo staff strived to reach the developers of the 70 digital game they exhibit, but five of them declined to work with the museum or were deceased. The rest were invited to contribute on the exhibition as co-curators to for example help decide what exact titles (and versions) should be made playable and what kinds of objects and context information should be displayed. When game developers were contacted, museum staff coached them on to selecting suitable ("exhibitable") game development materials from their personal or company archives. All in all, over 300 mostly game design related objects were donated or borrowed in this way. The co-curators picked out a wide selection of material, ranging from game retail boxes to more personal objects related to their work and the game development process. Below we analyse the collaborative process around three games that are good examples of the process.

UnReal World

UnReal World, originally released as a shareware PC game in 1992, is a *Kalevala* themed survival *roguelike*, continually developed by Sami Maaranen and Erkka Lehmus since 1992. The game's detailed hunting simulation is based on experience, since the developers have studied the techniques used by ancient hunters. *UnReal World* was included as the game with the "Longest update support" in the Guinness World Records Gamer's Edition 2017.

Of the case-examples for game developer participation *UnReal World* is the most successful. The enthusiastic developers of the game were thrilled by the museum's outreach and went out of their way to collaborate. Co-curation resulted in a transgressive out of the box presentation, including development materials and fan letters, but also self-made trekking and historical reenactment equipment on loan from Sami Maaranen. These include a self-made shaman's drum that was also used in making the game's music, self-made arrows that were used to test the game's archery mechanics and other objects that are playing with the idea of what kinds of objects can be used to talk about digital games. At the same time, the artifacts show how real life trekking and hunting experiences have influenced the design of the *UnReal World*.

The active role played by the game producer not only in providing material but also in planning the exhibit means that this process can be seen as partnership (6) and full participation on Arnstein's ladder (1971). However, a full appreci-



ation of the real power distribution could be hampered here because the interests of the museum and the game makers seem to align in such a way that it is difficult to say what their power relationship would be in a potential conflict. That said, without the participation of the game makers it would not have been possible to produce this exhibit or the insights it provides into the personal nature of game creation.

Supernauts

Supernauts (2013), although a modest success in its own right, is a different kind of example from the games industry. Developed by the game studio Grand Cru, it relied on the creativity of the gaming communities and wanted to revolutionize the interaction between players. The free-to-play game was in development for three years and gameplay focused on building innovative space stations. Ultimately, however, the game did not reach the desired number of players and it was closed in 2015, losing all player generated content in the process.

In the case of *Supernauts*, co-curation made it possible to show some aspects of a discontinued game. Game developers made concept art available and, more importantly, put museum staff in contact with the fan community. As servers did not exist anymore, it was not possible to show all the participatory content players had created during the game's three-year online life-span. However, getting in contact with the player community made it possible to talk about what the fans thought was interesting from an exhibition point-of-view. As a result of the extended co-curation process, a fan made crochet figure of a game character was put on display in the exhibition.

During the project, museum staff relinquished part of their role as experts and gave over authority to game developers. Following Iversen and Smith (2012, pp. 107-108), Suomen Pelimuseo's design process was "a form of dialogic curation; a holistic, inclusive and experience-centered approach to the design of heritage matters, from project inception to final exhibition". In the end, the selection of exhibited materials turned out more varied than what museum staff had been able to estimate when reaching out to developers. This is also a case of partnership (6) and full participation on Arnstein's ladder (1969). The recognition of the expert status of the game developers is a central step here and the success of being able to produce a high-quality exhibit for a discontinued free-to-play game, something that otherwise could well be seen as an impossibility, indicates that this process could be a step towards participatory game preservation. The inclusion of the fan community here was possible due to collaboration with the developer, a step that potentially could be included into preservation processes in the future.

Clash of Clans

International mobile hit game *Clash of Clans* (2012) by Supercell is one of the most well known Finnish games, as well as one of the most profitable. This makes Supercell an example of a particularly powerful outside stakeholder for a museum to work with. Despite initial interest and SP being willing to share



curatorial power, collaboration did not pick up in ernest. While managers seemed to like the idea of working with the museum there was no clear responsibility nor designated resources for the participation process established on the side of the company, nor an understanding of company work processes and potential IP constraints on the museum side. In the end it meant that the company shared some of their concept art for the display, but nothing else. The process did not result in a true dialogue, despite the fact that the participant company would have been in a relative power position as an established and profitable game studio.

This failure shows that political participation is a time-consuming process, with no guaranteed gains. Developer and museum affordances put a limit to the usefulness of co-curation, as time, money and exhibition space are all finite resources. Co-curating does not work if the contacted developers lack time to come up with interesting exhibits, lack the understanding of what might be interesting to visitors, do not have anything in their personal or company archives worth exhibiting, or do not allocate company resources to the participation. Co-curating also requires an atmosphere of trust, which takes time and effort to develop. Participation in curation and preservation of games is a dialogue which not everybody is interested in joining or has the resources to join. From a critical perspective it is also important to point out that participation in preservation requires the donation of unpaid labour with all the limitations to privileged participants and their perspectives that this entails. When working with game studios it is also not always clear where the problems lie that limit the collaboration. It could easily be invisible to the LAM institution if a game studio has internal debates over if and how they want to give access to their intellectual property (IP). This issue of the limiting factor of IP law also impacts the next actor we discuss here.

Rogue archives

A third relevant actor in game preservation are rogue archives. The practices of rogue archives range from preservation practices of independently developed games within the frame of a research project (Stuckey, Richardson, Swalwell, & de Vries, 2015; Stuckey, Swalwell, & Ndalianis, 2013; Stuckey & Swalwell, 2014; Swalwell, Ndalianis, & Stuckey, 2017) over the collection of broken games or fail games (Mora-Cantallops & Bergillos, 2018; Navarro-Remesal, 2017) to archives of playable games on emulators and even the Internet Archive which for example hosts the Wayback machine³. Rouge archives currently have some of the best and most thorough collections of digital games, which makes them a potential central partner for collaboration. That said, the "how" of such a collaboration is not obvious (De Kosnik, 2016).

Jason Scott from the Internet Archive gave a talk at a symposium at Tekniska Museet where he highlights the possibilities of rogue archives for the preser-



^{3.} A publicly available archive of old websites.

vation of games to simply use what is out there regardless of intellectual property laws, something LAM institutions lack. (Jason Scott, The internet archive; Save Game symposium at Tekniska Museet 2015/04/28; https://www.youtube.com/watch?v=w2Z0PO-kzYM&list=PLZVkEICvA5-EpKIAtMEpA-KZPsxAEohyi1&index=3, accessed 20190402)

And the reason that it happened [finding a working version of an old game] was that in 2000 someone took a really old version of 9-track tape, didn't ask questions, didn't ask for funding, did not ask what its meaning is, didn't try to justify it to academics, business, or the general public, and just kinda ripped it into a bunch of things. (Jason Scott, 2015)

The possibility of preserving games without the need for justification can well be the reason why rogue archives have the most complete collections (Newman, 2012a, p.13). Rogue archives, however, often do not extend their work beyond playable games for entertainment and there is a bias towards the preservation of popular games. "The whole thing is really about love." (Jason Scott, 2015) As uplifting as this message of the human and emotional side of culture is, it also means that the culture that nobody loves might not be preserved. Especially memories of problematic and even traumatic aspects of the past, memories that could be said to be especially important to learn from in the future, do not necessarily motivate preservation in this manner. The collection of games without regard for justification or meaning that Scott mentions highlights the important role that traditional LAM actors need to play in collaboration with rouge archives. In contrast to the LAM sector, rogue archives do not necessarily understand how to preserve or exhibit cultural heritage. LAM institutions are important here, as they are skilled in evaluating what kind of information and additional references are needed to contextualize culture.

Another central point is that rogue archives, as the name indicates, are operating in a legal grey-zone at best. Questions of intellectual property and the right to show particular games, or even make them playable to the public, are the subject of an ongoing debate around legislation and public policy. This legal uncertainty extends to 'abandonware', ⁴ unpublished games, hacks and modifications, and even large parts of non-western games. Many of these issues are connected to the emulation⁵ of games, an issue that has been debated in games preservation research and is not possible today due to legal obstacles, even though it is frequently seen as one of the most promising methods of long-term game preservation. (Newman, 2012a; Newman & Simons, 2018; also Sköld, 2018a). This means that rogue archives depend on staying under the radar of industry lawyers and can frequently be threatened with legal action and shut



Abandonware is computer software that is no longer distributed or supported by the developer or copyright holder.

^{5.} Emulation is the reproduction of the function or action of a computer or software system. In the context of game preservation, it refers to creating artificial versions of obsolete gaming hardware to be able to run old games on new computers.

down. Scott, in his talk, questions the immediacy of these kinds of legal threats to rogue archives.

It all boils down to: Are you going to be sued into oblivion? [...] I can crawl into a hole. I can take the dirt around it, scoop it over me, and die. Or... I can continue and see who screams. (Jason Scott, 2015)

Scott's argument is twofold: he points out that it is possible to resolve legal issues by just giving in whenever there is a real request to take something down and that bravery in the face of legal threats is needed in order to be able to preserve games. Not all institutions can break the law with the same *laissez faire* attitude as the Internet Archive. The point that it is easier to apologize than to ask for permission is certainly pragmatic yet poses problems for state funded LAM that has to stay on the right side of the law. However, the logic of the Internet Archive that "Access drives preservation" (Jason Scott, 2015) could help the LAM sector. All this said, it has to be pointed out that even Scott doubts that the Internet Archive is safe and has set up a backup of all their data to allow other actors to continue its work should they be taken down.

Is this a long-term solution? No! Somebody else maybe more seasoned or perhaps working under a different setup will mirror us. I am working very hard to make sure that the day this thing dies from untoward means, 48 hours later somebody else can do everything in there. (Jason Scott, 2015)

The outlook on possibly being subsumed into the LAM sector in the future is already pointing towards an expected convergence, albeit one that might be born of necessity. A full partnership (6) would be the more constructive path for the transition of knowledge and skills in a convergence of LAM institutions and rogue archives than the LAM sector picking up the pieces after the Internet Archive will have been discontinued. The legal protection and skills around exhibition and education from the LAM sector could be augmented with both the technical skills, the practical outlook, and the orientation towards access that defines rogue archives.

DISCUSSION

Practical lessons from participatory game preservation and exhibition

The examples from game exhibition and preservation discussed above show that participation of game makers and players in this space is possible and happening. Especially the cases from Suomen Pelimuseo show the potential of political participation to produce transgressive out-of-the-box type exhibits, like *UnReal World's* traditional hunting equipment or *Supernauts'* crochet figure. These exhibits could not have been made without participation of game makers or players. Museum researchers tried to lead co-curators towards material they thought would be suitable for the exhibition, but many times commit-



ted co-curators came up with interesting ideas on their own, and many game developers had nothing they could provide for the exhibition. This means that full participation, even on the level of curatorial decisions, should be understood as a dialogue or process. In some cases, the exchange went on for many months, narrowing down co-curator's ideas to what museum staff thought would be most interesting and plausible exhibits. Here the specialized knowledge of the LAM institutions is required, and the benefit lies exactly in the partnership between the game makers or players who understand what is important in this space and the institution who knows how to exhibit, educate, or preserve it. That said, as space was limited, museum staff in many cases had to choose from a bigger selection of donations, so they in effect had the final say on what to include. Co-curation was the ideal, but that kind of genuine dialogue between game makers and museum staff was reached in only in a few cases.

It is also important to point out that while the game developer and the community were recognized as experts and gained an authority position in this process, Suomen Pelimuseo museum was still a central actor with the specialist knowledge about preserving cultural heritage, creating exhibitions, and educating the public. It can also be said when comparing the success of the participatory processes in the examples that the cases that reached higher levels of participation also functioned better. The cases from Suomen Pelimuseo that reached the level of partnership produces exciting exhibitions that the museum saw as highly successful. That said, partnership in curation is no silver bullet. Suitable informants with personal archives were not reached in all cases, which diminished the effectiveness of co-curation. Political participation and co-curation need to be a dialogue, which not everybody is interested in joining.

Tekniska Museet also had some success with light participation in *Play beyond Play*. To a considerable extent this is built on player created material but did not get as far as Suomen Pelimuseo in sharing curatorial decisions or even giving insight into their curatorial process. This indicates that full participation with empowered participants and agonistic pluralism might work best in a situation in which the LAM institution in question has a more equal powerful position from the start as the other participants. Being crowdfunded and on a limited budget might here have been an advantage of Suomen Pelimuseo as it required them to share curatorial power which led to some successful cases.

The methods of sharing curatorial power based on an understanding of political participation that is shown in its infancy stages in the examples here is transferable to archives and libraries who are working to incorporate the histories, artifacts, and knowledge from different communities. Civic participation, not as mere consultation but as sharing power over defining a space, culture, or heritage does not come with a to-do-list or checkboxes but is an ongoing conversation with constant reflection on the power position of the stakeholders involved. Examples could be projects where libraries or archives



offer their space for projects and outside stakeholders to shape and define their own culture.⁶

Policy implications

Policy regulating LAM-institutions should change in order to accommodate players, makers, and rogue archives as participants in game preservation efforts. As mentioned above, there is already a participatory agenda in cultural policy, especially in the Nordic countries. The notion of political participation used in this paper is useful for highlighting the power position of participants and is compatible and even partly based on agonistic pluralism, a framework also used in previous research in this space to address this problem. This means that the political participation is a valid interpretation of existing cultural policy that is already directing LAM institutions to focus on participation and would only require a re-interpretation or slight change to be practically applicable. Implementing these requirements of participation and collaboration as political participation takes steps towards resolving the practical paradoxes of the participatory agenda (Brandrup Kortbek et.al., 2016: 20; Sørensen 2016: 6).

A more practical formulation of the participatory agenda should stress that participation requires power. A participant is only a participant if they can defend their perspective, if they have standing in a discussion, if there is agonistic pluralism. Stakeholders like players, game makers, the games industry, but also rogue archives and fan preservation projects should be considered partners with their own power and perspectives that need to be included in considerations and plans for such a project. This means realizing that the LAM sector will have to relinquish some of their power over heritage defining activities while still being relied on for the knowledge, experiences, and special training this sector possesses. Our examples show that the collaboration worked better when it was based on partnership and full participation that drew on the various skills and resources possessed by both LAM and outside actors. It can however be argued that in the instances where LAM institutions relinquished power they did so because they had to. Tekniska Museet needed material for their exhibition and Suomen Pelimuseo was even more reliant on the participants' contributions both in terms of time and know-how. For the future it should be an element of the participatory agenda in cultural policy to call for truly empowering participants in order to elevate participation in game preservation from lucky accidents to full collaborative policy.

Collaboration with game makers is the most straightforward here from the perspective of IP issues. The examples from Suomen Pelimuseo show that work with game makers and the industry can be fruitful and practically viable. However, IP legislation is a foundational problem that needs to be solved. Even work with the industry can be more complex as soon as the ownership of the



An example for a project where libraries open spaces for games and gaming culture could be https://www.bibliogames.no/.

IP becomes more involved. Making LAM actors exempt from some IP limitations for preservation purposes needs to be an aim of cultural policy, both domestically and internationally LAM actors could then collaborate with actors such as rouge archives that already have technical skills and infrastructure necessary for this kind of preservation. Allowing them to fully participate in the preservation of games as culture is an important next step for the convergence of the LAM sector. Another issue that has only tangentially been touched upon is player productivity on the level of modding, streaming, and esports. These are central elements of game culture that need to be considered for the future of cultural policy in regard to digital games (Lowood et al., 2009; Pinchbeck et al., 2009; Van der Hoeven, Lohman, & Verdegem, 2008). The ownership as intellectual property of, for example, an esports tournament is a complex question to the point that the preservation and exhibition of it as culture should not be dependent on how or if it will eventually be answered. Modding and player modification of games leads, at least for the time being, into a similar no-man's-land. The practices of rogue archives then, including making games freely available online as emulation, are limited by the same issues as the preservation of any player participation in game preservation. This means that IP limits not only emulation of games in rogue archives but in the end threatens the very elements that make games special, player interaction and creativity in both playing and making games. Here we need to take steps to empower these actors to be part of our preservation efforts by accommodating them as partners in cultural policy frameworks.

CONCLUSION

This paper has investigated how the preservation of digital games can be supported through collaboration with stakeholders inside and outside the LAM sector, and what policy changes such collaborations would require and inform. We conclude that participation in the preservation and exhibition of digital games should not stop at established LAM institutions but include players, game makers, and rogue archives. Digital-born games with their focus on interaction-in-play and co-creation-in-production stress the necessity and many benefits of involving players in defining what digital games and digitalgame cultures are and how they should be collected, described, and disseminated in the LAM sector. This requires an open dialogue with participants and an ongoing process as well as the sharing of curatorial power. While player communities, game makers, and rogue archives have necessary skills and infra-structures for the meaningful preservation of game heritage, LAM institutions do have competences in long-term preservation and exhibition that are crucial for an informed practice around the preservation of digital games. This means that collaboration between LAM institutions and rogue archives (or at least their practices and communities) in which these third-party actors have the stance of full participants would be a relevant solution to key issues of game preservation. Policy regulating LAM-institutions should change in order to enable the participation of players, makers, and rogue archives. This paper



argues that political participation and agonistic pluralism are useful concepts for the modeling and understanding of game preservation and provide a possible solution for the paradoxes of the participatory agenda in Nordic cultural policy.

BIBLIOGRAPHY

Aarseth, E. J. (1997). Cybertext: perspectives on ergodic literature.

Arnstein, S. R. (1969). "A ladder of citizen participation." Journal of the American Institute of Planners, 35(4), 216–224.

Bachell, A., & Barr, M. (2014). "Video game preservation in the UK: A survey of records management practices." International Journal of Digital Curation, 9(2), 139–170.

Barthes, R. (2001). "The death of the author." Contributions in Philosophy, 83, 3–8.

Brandrup Kortbek, H., Schwartz, C. P., Sørensen, A. S., & Thobo-Carlsen, M. (2016). "The participatory agenda – A post-critical, anticipatory intervention." Nordisk kulturpolitisk tidsskrift, 19(01), 19–35.

Carpentier, N. (2011). "The concept of participation: If they have access and interact, do they really participate?" CM-Časopis Za Upravljanje Komuniciranjem, 6(21), 13–36.

Carpentier, N. (2016). Media and participation: A site of ideological-democratic struggle.

Cook, Terry. (2012). "Evidence, Memory, Identity, and Community: Four Shifting Archival Paradigms." Archival Science, 1–26. http://doi.org/10.1007/s10502-012-9180-7

De Kosnik, A. (2016). Rogue archives: Digital cultural memory and media fandom. MIT Press.

Eklund, L., Sjöblom, B., & Prax, P. (2019). "Lost in Translation: Video Games Becoming Cultural Heritage?" Cultural Sociology. https://doi.org/10.1177/1749975519852501 Findahl, O. (2014). Swedes and the Internet.

Flyvbjerg, B., & Bryant, C. G. (2003). "Making social science matter: Why social science fails and how it can succeed again." Canadian Journal of Sociology, 28(1), 109.

Greenhill, E. H. (1992). Museums and the Shaping of Knowledge. Routledge.

Guins, R. (2014). Game after: A cultural study of video game afterlife.

Heinonen, M. (2017). "From Our Garage to the Finnish Museum of Games-History in the Making." Skrolli International Edition E, 1, 82–83.

Jenkins, H., & Carpentier, N. (2013). "Theorizing participatory intensities: A conversation about participation and politics." Convergence, 19(3), 265–286.

Kidd, J. (2009). "Digital storytelling and the performance of memory." In Save as... digital memories (pp. 167–183). Springer.

Kidd, J. (2011a). "Enacting engagement online: framing social media use for the museum." Information Technology & People, 24(1), 64–77.

Kidd, J. (2011b). "The costume of openness: heritage performance as a participatory cultural practice." Performing Heritage: Research, Practice and Innovation in Museums and Live Interpretation. Manchester University Press. Manchester, 204–220.

Kinnunen, J., Lilja, P., & Mäyrä, F. (2018). Pelaajabarometri 2018: Monimuotoistuva mobiilipelaaminen.

Kow, Y. M., & Nardi, B. (2010). "Who owns the mods?" First Monday, 15(5).

Kraus, K., & Donahue, R. (2012). "Do you want to save your progress?": The role of professional and player communities in preserving virtual worlds". Digital Humanities Quarterly, 6(2).

Laclau, E., & Mouffe, C. (2014). Hegemony and socialist strategy: Towards a radical democratic politics. Verso Trade.

Lowood, H. (2004). "Playing History with Games steps towards historical archives of computer gaming." Electronic Media Group Annual Meeting of the American Institute for Conservation of Historic and Artistic Works Portland, Oregon June, 14.



- Lowood, H., Armstrong, A., Monnens, D., Vowell, Z., Ruggill, J., McAllister, K., ... Pinchbeck, D. (2009). "Before it's too late: Preserving games across the industry/ academia divide." 4th Digital Games Research Association International Conference: Breaking New Ground: Innovation in Games, Play, Practice and Theory, DiGRA 2009.
- MacDonough, K., Fraimow, R., Erdman, D., Gronsbell, K., & Titkemeyer, E. (2016). "On the EVE of Preservation: Conserving a Complex Universe." M. Carter, K. Bergstrom and D. Woodford, Eds, 210–220.
- McDonough, J. P. (2011). "Packaging videogames for long-term preservation: Integrating FRBR and the OAIS reference model." Journal of the American Society for Information Science and Technology, 62(1), 171–184.
- McDonough, J. P. (2012). "Knee-Deep in the Data: Practical Problems in Applying the OAIS Reference Model to the Preservation of Computer Games." 2012 45th Hawaii International Conference on System Sciences, 1625–1634. IEEE.
- McDonough, J. P., Olendorf, R., Kirschenbaum, M., Kraus, K., Reside, D., Donahue, R., ... Rojo, S. (2010). Preserving virtual worlds final report.
- Mora-Cantallops, M., & Bergillos, I. (2018). "Fan preservation of 'flopped' games and systems: The case of the Virtual Boy in Spain." Catalan Journal of Communication & Cultural Studies, 10(2), 213–229.
- Mouffe, C. (2013). Agonistics: Thinking the world politically. Verso Books.
- Mulcahy, K. V. (2006). "Cultural policy: Definitions and theoretical approaches." The Journal of Arts Management, Law, and Society, 35(4), 319–330.
- Navarro-Remesal, V. (2017). "Museums of Failure: Fans as Curators of "Bad", Unreleased, and "Flopped" Videogames 1." In Fans and Videogames (pp. 128–145). Routledge.
- Newman, J. (2011). "(Not) Playing Games: Player-Produced Walkthroughs as Archival Documents of Digital Gameplay." The International Journal of Digital Curation, 6(2), 109–127.
- Newman, J. (2012). Best before: Videogames, supersession and obsolescence. Routledge. Newman, J., & Simons, I. (2018, April 23). 'Game Over?' Curating, Preserving and Exhibiting Videogames: A White Paper. Retrieved April 15, 2019, from BGI website: https://thebgi.uk/gameoverwhitepaper/
- Nylund, N. (2015)." Walkthrough and let's play: evaluating preservation methods for digital games." Proceedings of the 19th International Academic Mindtrek Conference, 55–62. ACM.
- Nylund, N. (2018). "Constructing Digital Game Exhibitions: Objects, Experiences, and Context. Arts, 7, 103." Multidisciplinary Digital Publishing Institute.
- Olgado, B. S. (2019). "Save Point/s: Competing Values and Practices in the Field of Video Game Preservation." In N. G. Taylor, C. Christian-Lamb, M. H. Martin, & B. Nardi (Eds.), Information in Contemporary Society (pp. 411–418). Springer International Publishing.
- Pearce, C. (2009). Communities of Play: Emergent Cultures in Multiplayer Games and Virtual Worlds. Cambridge, Mass.: MIT Press.
- Pinchbeck, D., Anderson, D., Delve, J., Alemu, G., Ciuffreda, A., & Lange, A. (2009). "Emulation as a strategy for the preservation of games: the KEEP project." DiGRA 2009-Breaking New Ground: Innovation in Games, Play, Practice and Theory.
- Prax, P. (2016a). Co-creative Game Design as Participatory Alternative Media (Informatics and Media, Uppsala University).
- Prax, P. (2016b). "Co-Creativity in Online Games as Alternative Media." Questions de Communication.
- Prax, P. (2018). "Between Global Competition, Marketing, Deviant Play, and Cheating: High-End Raiding in World of Warcraft." Comunicazione Sociali, (1), 80–90.
- Prax, P., Sjöblom, B., & Eklund, L. (2016). "GameOff: Moving Beyond the 'Original Experience'in the Exhibition of Games." SIRG Research Reports, 2016, 1–17.



- Prax, P., Sjöblom, B., & Eklund, L. (forthcoming). "More like an arcade The limitations of playable games in museum exhibitions." Museum and Society.
- 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. https://doi.org/10.1002/asi.23875
- Sköld, O., Huvila, I., Talja, S., Kjellberg, S., Latham, K., Uppsala universitet, & Humanistisk-samhällsvetenskapliga vetenskapsområdet. (2018). Documenting Videogame Communities A Study of Community Production of Information in Social-Media Environments and its Implications for Videogame Preservation. Uppsala: Department of ALM.
- Sørensen, A. S. (2016). "Participation" The new cultural policy and communication agenda. Nordisk kulturpolitisk tidsskrift, 19(01), 4–18.
- Sternfeld, N. (2012). "Playing by the Rules of the Game: Participation in the Post-Representative Museum." Trans. Erika Doucette and Sam Osborne. CuMMA Papers, (1).
- Stuckey, H., Richardson, N., Swalwell, M., & de Vries, D. (2015). "What retrogamers can teach the museum." MWA 2015: Museums and the Web Asia 2015.
- Stuckey, H., & Swalwell, M. (2014). "Retro-Computing Community Sites and the Museum." Handbook of Digital Games, 523–547.
- Stuckey, H., Swalwell, M., & Ndalianis, A. (2013). "The popular memory archive: Collecting and exhibiting player culture from the 1980s." In Making the history of computing relevant (pp. 215–225). Springer.
- Swalwell, M., Ndalianis, A., & Stuckey, H. (2017). "Fans and videogames: histories, fandom, archives. Routledge.
- Van der Hoeven, J., Lohman, B., & Verdegem, R. (2008). "Emulation for digital preservation in practice: The results." International Journal of Digital Curation, 2(2).

