On digital artworks and their distribution and preservation infrastructures

Digitale Kunstwerke und ihre Vertriebs- und Bewahrungsinfrastrukturen

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Abstract
Digitalization offers new possibilities for cultural institutions but also challenges existing models. Looking at art institutions and their role as distributors and preservers of culture, this essay uses infrastructure theory and four case studies to discuss challenges that analog institutions face when they are dealing with digital art. The issues identified relate to resources, technical and financial, and knowledge about technological needs. The study also indicates that we hold on to old infrastructures and habits when it comes to preservation and distribution, but also when it comes to what an institution is and what it can be. Changing these habits takes time since they are often embedded in other systems. This suggests that the challenges institutions face in the cases of digital art are part of a larger infrastructural problem, which includes systems for funding, distribution of knowledge, educational programs, and habits.
Die Digitalisierung bietet neue Möglichkeiten für Kulturinstitutionen, stellt aber auch bestehende Modelle in Frage. Mit Blick auf Kunstinstitutionen und ihre Rolle als Vermittler und Bewahrer von Kultur werden in diesem Aufsatz anhand der Infrastrukturtheorie und vier Fallstudien Herausforderungen diskutiert, denen sich analoge operierende Institutionen gegenübersehen, wenn sie sich mit digitaler Kunst beschäftigen. Die identifizierten Probleme beziehen sich auf technische und finanzielle Ressourcen und auf das Wissen über technologische Bedürfnisse. Die Studie zeigt, dass wir an alten Infrastrukturen und Gewohnheiten festhalten, wenn es um Bewahrung und Vermittlung geht, aber auch im Hinblick auf das Selbstverständnis einer Institution. Diese Gewohnheiten zu ändern, braucht Zeit, da sie in andere Systeme eingebettet sind. Dies legt nahe, dass die Herausforderungen, denen sich Institutionen im Falle digitaler Kunst gegenübersehen, Teil eines größeren infrastrukturellen Problems sind, welches Systeme für die Finanzierung, die Verbreitung von Wissen, Bildungsprogramme und Gewohnheiten umfasst.

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1. Introduction

Digitalization processes do not only change how art and culture are distributed, preserved, and consumed, but also how they are created. The fact that digital art forms are difficult for many art institutions to work with is not new and has numerous times been discussed by scholars such as Christiane Paul (PAUL 2015; PAUL 2007). Apart from apparent challenges concerning technical solutions, resources, and conceptual problems, this essay discusses the possibility of a larger infrastructural dilemma related to the distribution and preservation of digital art in an institutional context. This essay aims to open up a discussion on a conceptual level, which in the future could lead to more practical solutions.[1]

Using infrastructure theory (PARKS 2017; PARKS/STAROSIELSKI 2015; STAR/RUHLEDER 1996; STAR 1999) this essay looks at the art world and its institutions (DICKIE 1997: 83–92) as an infrastructure for how art is organized, reached, experienced and understood in society. Infrastructures are embedded systems, structures for fundamental functions to operate in our society (PARKS 2017: 106; PARKS/STAROSIELSKI 2015: 6). Roads, railways, water pipes, airports, and telecommunication networks are examples of such structures. Apart from these material systems the term infrastructure also includes non-material constructions, so-called soft systems. Such infrastructures are for example systems for producing and organizing knowledge in society (PARKS/STAROSIELSKI 2015: 9). This includes political, technological, philosophical, communicative, epistemological, and social infrastructures. Social infrastructures include social institutions, among them institutions of art and culture (HOWE et al. 2016: 548–558).

Some characteristics of infrastructures are that they remain invisible while being part of our everyday lives and that they involve and are connected to other infrastructures and systems (STAR/RUHLEDER 1996: 113; STAR 1999: 381–382). Infrastructures maintain structures while being structures in themselves (HOWE et al. 2016: 558). The art world is thus not just an infrastructure in itself but also includes other infrastructures. These infrastructures can be material, like museums and galleries, or non-material, like conventions and organizational models, which for example include how exhibitions are being produced or how artworks

1 This essay is based on research, which was conducted for my MA thesis in aesthetics and culture at Aarhus University in 2019. The thesis was supervised by Nanna Bonde Thylstrup.

are being collected and preserved (DICKIE 1997: 83–92). These infrastructures in turn also relate to other infrastructures, such as political and financial infrastructures, outside the art world.

The discussion in this essay follows case studies of four platforms created for digital art. These platforms are *Net.Specifc*, *Ars17+ Online Art*, *Digital Museum of Digital Art* and *New New Wight*. Two of the cases were created by physically existing art institutions, two by artists working with digital art. In this essay, the cases are used as examples of solutions for distributing and preserving digital art in an institutional context. The examples have been chosen because they represent different approaches to the distribution and preservation of digital art. When studying the examples attention has particularly been paid to what has been done, why, how, and what happened next.

While these cases by themselves cannot give a full picture of how digital art is being presented and preserved, they can be used to fuel the discussion on the challenges that analog art institutions face when they work with digital art. At the same time, these examples can help us identify some of the reasons, methods, ideas, and concepts which are present when digital art is being distributed and preserved.

2. Digital art

Although there is no clear definition of what digital art is or what it can be, many of the works that today are understood as 'digital art' are digitally born works that are created, sorted, and distributed through digital channels, using different digital technologies from production to presentation (PAUL 2015: 7–25, 67). This means that digital artworks are part of a media infrastructure within which and through which they are created and distributed. At the same time, as artworks, they are also part of the infrastructure of art.

From an art-historical point of view, digital art is closely related to movements such as Dada and Fluxus along with conceptual art, all of which have embraced participation, happening, formal instructions, and a focus on concept rather than material objects (PAUL 2015: 7–25). Digital art is thus part of a history of artistic experiments involving process, systems, and interactivity (SHANKEN 2007: 43–70). Additionally, as it often plays with different contexts, it also relates to site-specific practices. Digital art is however difficult to place in a periodical or stylistic category (SØNDERGAARD 2016: 87).

While an overall characterization of 'digital art' indeed is lacking, suggesting that earlier forms of classification have become outdated, there are some features that are common for many of the artworks usually labeled 'digital art'. Although applicable in various degrees depending on the work, digital art is an interactive, performative and generative art form that is multi-, inter-, and transdisciplinary as well as event-based, time-based, or process-based (DIAZ 2016: 238; PAUL 2007: 251–274). It often plays with themes directly related to the digital or explores its possibilities (PAUL 2015: 7–25, 67). Such themes are for example artificial life and intelligence, body and identity, database aesthetics and data visualization, narrative environments, games, tactical media, activism, hacktivism, future technologies, augmented and mixed realities, social media, and web 2.0 (PAUL 2015:139–259). In this essay 'digital art' is used in a wide sense and refers to such artworks that relate to the digital.

Why then is it challenging for physical institutions to work with digital art forms? One of the often-presented arguments is that physical intuitions were created for art forms that are object-oriented, material, and static. Analog institutions are therefore not flexible enough to meet the requirements of digital artworks (PAUL 2015: 7–25).

Institutions have often been criticized for not meeting the contextual needs of digital artworks (PAUL 2015: 7–25, 67). The institutions create a certain context governed by certain traditions and behavioral norms and can therefore be limiting, extracting the artwork from its natural digital context (BENNETT 1997: 17–105; SCHUBERT 2000: 17). This especially applies to internet art, which natural habitat is the internet and should therefore be experienced whenever, wherever, and by whomever as long as there is an internet connection. This means that digital artworks do not only require new technical solutions but also create conceptual dilemmas (ANDERSEN/POLD 2015: 29–30; PAUL 2015: 7–25; PAUL 2007: 251–274).

How then can institutions work with these art forms without killing crucial parts of what makes them important in the first place? As an attempt to explore this question I have looked at four case studies.

3. The webpage and the game – some examples

In 2012 the *Museum of Contemporary Art* in Roskilde, Denmark, launched an online exhibition space or platform for digital art called *Net. Specific* <http://netspecific.net/>. The platform is a webpage where the

museum, between 2012 and 2015, opened two exhibitions showcasing internet art with artworks commissioned by the museum for the platform. The museum specializes in contemporary art and focuses largely on new media, including sound art, video art, and net art. According to Sanne Kofod Olsen, who was the director of the museum at the time of the launch of *Net.Specific*, the platform was created as part of the museum's work with contemporary time-based and performative art forms. It is the result of a research-based project and the desire to extend the museum's practice online to include internet art, which back then had not received much attention in an institutional context in Denmark (OLSEN 2019).

Net.Specific is independent of the museum's webpage but the museum logo indicates the origin of the page. The works presented on the platform are not hosted on the page, instead, the site links to artworks that exist or existed elsewhere on the internet. Explanatory texts are used to communicate the concept of the platform and the artworks. The works are only shown online and none of the exhibitions or works were installed in the physical museum, but there was an on-site computer through which the platform could be reached. Although at the time it was launched, the platform was supposed to be an ongoing project, the page has not been maintained since 2015 (OLSEN 2019). The page still exists, but some of the works can no longer be accessed. The works are not included in the permanent collection of the museum.

Fig. 1: *Net.Specific (source: screenshot, August 30, 2019)*

Similarly, in 2017, *Kiasma Museum of Contemporary Art* in Helsinki, Finland, launched its *Ars17+ Online Art* platform for a new collection of digital art <http://arsplus.kiasma.fi/en/>. The platform is a webpage that showcases digital artworks of various forms, including video, net art, gifs, apps, games, and software. It was created as a result of the museum's wish to include digital art in their collection and exhibition program (MILLER/LIIMATAINEN 2017), which engages with contemporary art. The platform was curated by Arja Miller and Milja Liimatainen from *Kiasma* and guest curator Attilia Fattori Franchini. It was originally launched in connection with the physical exhibition *Ars17: Hello World*, an exhibition about the digital revolution in art, which was exhibited at the museum in 2017. Although the physical exhibition has run its course, the online extension is still available.

Most of the works on the platform were commissioned for the platform and exhibition, and they have been included in the permanent museum collection (MILLER/LIIMATAINEN 2017). Most of the works are hosted on the platform together with explanatory texts and artist descriptions. The platform is a subdomain of the official museum page and shares its visual identity. During the run of the physical exhibition at the museum, the platform was accessible in the physical museum building through a tablet placed in the museum library.

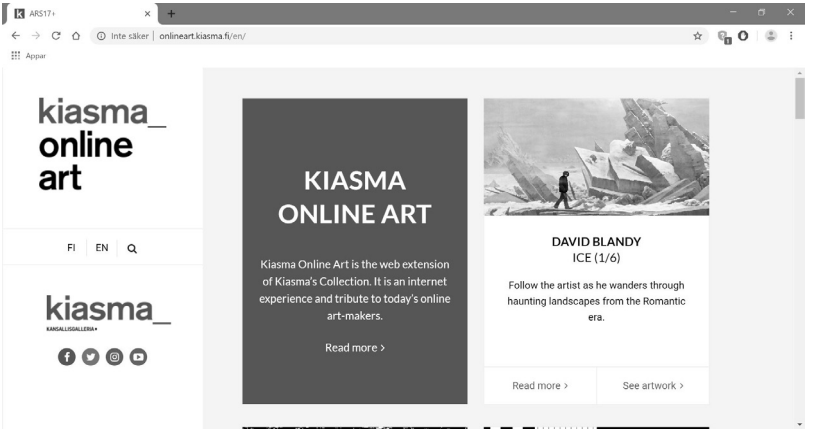

Fig. 2: *Ars17+ Online Art (source: screenshot, August 30, 2019)*

A slightly different approach was used by artists Alfredo Salazar-Caro and William Robertson (who both work with digital art) when they in 2015 launched their *Digital Museum of Digital Art* <https://dimoda.art/>. This platform is a software application developed in the game-engine *Unity* and made available for download through a webpage. Once downloaded it can be accessed from a personal device. The platform is a virtual interactive computer game-like space with a 3D model of a neo-classical museum building in which works by different artists are showcased. The works are built into the platform and are part of the infrastructure. Mostly focusing on VR art, the *Digital Museum of Digital Art* has to this date produced three exhibitions, all available for download on their webpage. This webpage also includes texts explaining the concept. The main idea with the *Digital Museum of Digital Art* was to create a new platform, a new museum, where digital artworks and VR art could be presented in their intended context: the digital (FABBULA 2019).

Although the *Digital Museum of Digital Art* is an independent virtual space, they have organized launches in collaboration with physical institutions such as *Transfer Gallery* in New York. They have also been using the concept of pop-up exhibitions to collaborate with other institutions, events, organizations, and festivals taking place in physical spaces.

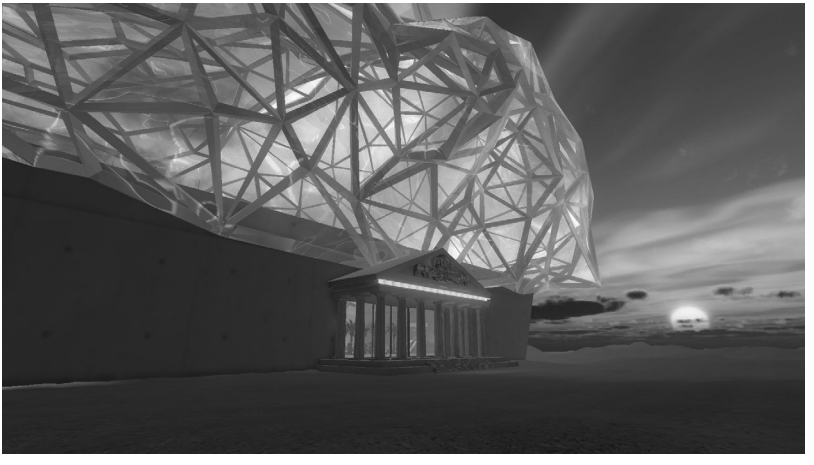

Fig. 3: Digital Museum of Digital Art
(source: screenshot, August 30, 2019)

Using the game infrastructure to create art spaces for digital artworks is also something artists Theo Triantafyllidis and Julieta Gil did when they, in 2015, created the *New New Wight*, a virtual copy of the New Wight Gallery at the University of California, Los Angeles (UCLA) <http://dma.ucla.edu/exhibitions/newnewwight/thegalleryisnaked/index.html>. The platform was launched together with the opening exhibition The G*allery is Naked*, where digital works by 14 artists selected from an open call were presented. Like the *Digital Museum of Digital Art*, the *New New Wight* is an interactive digital space, created using the *Unity* game-engine, where the artworks are built into the platform itself.

Triantafyllidis and Gil both work with digital art and new media and have studied at UCLA. When they created the space they were interested in audience experience and exploring the boundaries between space, artwork, and authorship (TRIANTAFYLLIDIS 2019). The platform was made available through download from UCLA's webpage and online using the browser plug-in *Unity Web Player*. As the plug-in is no longer supported the space is no longer accessible online, but can still be downloaded and then accessed from a personal device. After the first exhibition presented in the virtual space, no other exhibitions have taken place. Documentation of the first exhibition is available as a video on YouTube (THEOTRIAN 2020).

Fig. 4: *New New Wight*
(source: screenshot from YouTube, August 30, 2019)

4. Challenges – what can be learned

In an interview about *New New Wight*, Triantafyllidis points out that the main challenges with the space were technical and related to the implementation of the artworks in a game-engine (TRIANTAFYLLIDIS 2019). Birgitte Kirkhoff Eriksen, the current director of the *Museum of Contemporary Art* in Roskilde, has also in an interview mentioned technical difficulties in the case of *Net.Specific* (ERIKSEN 2019). The same goes for *Ars+ Online Art* and *Kiasma* in which case curators Miller and Liimatainen have expressed how the regular museum staff had to deal with technical challenges they necessarily were not trained or equipped to work with (MILLER/LIIMATAINEN 2017).

According to Susan Leigh Star's and Karen Ruhleder's studies on collaborative systems across different communities, what may seem easy for one group might appear difficult for another and the reason for this is a gap between different user contexts (STAR/RUHLEDER 1996: 127f.). Such a gap could for example be identified in the development process of *Ars17+ Online Art* where the curators, with knowledge about art, had limited experience of working with digital technologies, and the IT-department, who built the platform, had no experience of working with art (MILLER/LIIMATAINEN 2017). In other words, lacking knowledge about technical solutions related to digital art in an institutional context can also be seen as an infrastructural problem. This calls for a closer look at, for example, recruiting processes, but also on how education is structured, to allow interdisciplinary studies and tighten the professional gap between art and IT.

One of the major challenges with *Net.Specific* was financial, and the lack of external financial resources was in the end what closed the project down (OLSEN 2019). Limited financial resources were also mentioned in the case of *Ars17+ Online Art*, where it affected the overall outcome and design of the platform (MILLER/LIIMATAINEN 2017).

This is interesting from the point of view of financial infrastructures that make funding cultural projects and art possible. For example, to what extent do digital artworks or projects centering on digital art gain funding? Is the funding continuous and what aspects affect the possibilities of funding? Digital artworks are often for example dependent on material components, hardware, to be experienced (PAUL 2007: 251–274). Even if the archived codes of the digital space and artworks could be kept as such, the hardware is part of ongoing development and changing

fast, which means that older digital works might not exist in formats that can be processed by later technology (LENOIR 2007: 364f.). As digital technologies are continuously advancing they also require constant maintenance. This requires a constant flow of financial resources. How this is taken into account in the funding processes could refer to another infrastructural issue, namely a cultural-political one.

When it comes to the preservation of digital artworks, their often process- and time-based interactive nature challenges existing models of preserving, commonly developed for more static art forms. Documentation through video or photography, often used in the cases of performance art, is one method also used for preserving digital art (PAUL 2015: 25). This we have seen in the case of *New New Wight*. This of course does not preserve the artwork itself, but can be used to study aspects of the artworks later.

In the case of *Ars17+ Online Art*, the artworks presented on the platform are part of *Kiasma*'s collection. Practically this means that the museum owns the source code. Traditionally this means that the museum is responsible for the works. Possible preservation strategies were discussed with the artists while the platform was being built, and attempts were made to include these in the contracts. However, the museum has expressed an understanding of the fact that they might not be able to preserve the platform and the works (MILLER/LIIMATAINEN 2017). *Net.Specific* was never supposed to be a permanent collection nor a space for preserving the works exhibited on the platform (OLSEN 2019). Rather it seems to be an experiment on how to work with internet art in an institutional context.

As for the *Digital Museum of Digital Art* and the *New New Wight*, preserving the artworks means preserving the space. The downloadable version of the *New New Wight* was made for archiving purposes (TRIANTAFYLLIDIS 2019). The *Digital Museum of Digital Art* was developed with the vision of a permanent collection and archive of the digital works presented on the platform. Part of the preservation strategy in this case included the copies of the museum that would be created and spread out when visitors would download the files containing the space on the webpage (BORS 2015). Both *New New Wight* and the *Digital Museum of Digital Art* are, however, apart from the hardware, also dependent on software (*Unity*) to be experienced.

According to Tina Mariane Krogh Madsen, who curated *Net.Specific*, traditional preservation strategies need to be reinvented focusing more on process, concept, and performativity. One such strategy is to more

closely include the artists in the discussion and development process of a preservation method for their work and, through contracts and databases, state the future of each artwork (MADSEN 2015: 313–320). This was the case with *Ars17+ Online Art*. Depending on the artwork and its needs, the preservation methods could, apart from documentation, also involve permissions to recreate artworks or update them following technological developments (MADSEN 2015: 313–320).

This means that the artwork would change over time and it would also question institutional ideas about originality, authenticity, and the concept of a unique artwork that should be conserved for future generations. Digital art therefore does not only challenge traditional ideas of exhibiting and presenting (distribution) but the concept of preservation as a whole. This in turn challenges the role of the intuition as a caretaker (preserver) of culture.

5. Digital imaginaries

Looking at the examples discussed above it is interesting to see how they all, although digital, seem to simulate an analog reality in various degrees. *New New Wight* is a virtual copy of a physically existing gallery within which artworks are shown. The white cube model and the fact that it relates to an actual institution, create a clear institutional framework around the space. The *Digital Museum of Digital Art* is in itself already called a museum and the platform is a virtual building that with its neoclassical style looks like a traditional museum. While *Net.Specific* and *Ars17+ Online Art* both are webpages, they are framed by their mother institutions through museum logos and exhibition texts. Why is it that the digital platforms seem to replicate elements of physical exhibition spaces and institutions when the possibilities of the digital space are different from an analog one? To explore this question I have looked into whether this has something to do with how 'the digital' is imagined or understood.

When we examine the cases we can see that there are different ideas of what digital art is and what the digital space can be. The *Digital Museum of Digital Art* and *New New Wight* are for example focusing on a certain type of digital art that can be exhibited in the virtual space created. *Net.Specific* focused on internet art and *Ars17+ Online Art* is a collection of various types and forms of digital artworks.

All of the cases mentioned have in one way or another involved the internet in their infrastructure. As Christiane Paul points out, what often happens when we think of the digital or the internet is that we imagine it as immaterial, or as the invisible cloud accessible by whomever, whenever and wherever (PAUL 2007: 251–274). The idea of this accessibility is for example something *Kiasma* found attractive in the case of *Ars17+ Online Art* (MILLER/LIIMATAINEN 2017). The digital is however not immaterial, it just involves another kind of materiality, which consists of all those infrastructural components that make it possible to transport information and audiovisual content (PAUL 2007: 251–274). This materiality is crucial to whether one has access and it is affected by other systems, among them political, financial, and social (CHUN 2016: 4–19; STAR 1999: 389; THYLSTRUP 2019: 133). The digital space is thus not neutral but governed by its power structures while simultaneously relating to others.

According to media theorist Lisa Parks, how we understand or imagine infrastructures (what we think of them, where they are, who controls them, and what they do) is also an infrastructure (PARKS 2015: 355). The infrastructure of art institutions, therefore, includes, apart from buildings and people (material components), ideas and conventions (soft systems), also our ways of thinking about and being around art and institutions. The same goes for media infrastructures, which apart from cables and satellites also consist of our idea of them. This is what Parks calls infrastructural imaginaries, and as imaginaries, they might not always represent the full truth (PARKS 2015: 355).

When a cultural institution presents art online, the online space (platform) becomes an extension of the institution and its infrastructure but is also part of the digital and that infrastructure. Looking at how institutions understand the digital can help us understand their relationship to the digital, how they treat it, and work with it in an institutional context. It could also explain why the digital platforms discussed seem to mirror analog setups. This suggests another infrastructural dilemma related to infrastructural imaginaries, namely to how we imagine institutions and the digital.

6. Broken infrastructures

According to Wendy Chun, our understanding of the digital is based on habits. Like infrastructures, habits exist by being invisible, automatized, and unconscious (CHUN 2016: 6, 13). Infrastructures are both forming and formed by social conventions (STAR/RUHLEDER 1996: 113; STAR 1999: 381f.). Like habits, they have been learned from somewhere. Institutions are what maintain certain ideas about art and art institutions, which in turn affect our understanding of them (DICKIE 1997: 83–92). If our understanding of the digital, as Chun says, is based on habits, then it is possible that also our understanding of the art institution is based on habits (that which we are used to).

According to Star and Ruhleder, infrastructures remain invisible due to their quality of connecting to other infrastructures and systems in a standardized way. Since infrastructures are constantly built on older, already existing systems, they inherit the strengths and weaknesses of those older structures (STAR/RUHLEDER 1996: 113; STAR 1999: 381f.). It then seems possible that the digital spaces for art, at least when it comes to the cases discussed, are built on older institutional systems, which are, in turn, based on habits. The platforms thus echo the infrastructures and logic of these analog systems, which include models of (re)presentation and the concept of preservation.

When it comes to the digital, break down and glitches are an inevitable part of its logic. This also means that digital artworks are not necessarily made to last. As mentioned above this possible outcome was discussed in the case of *Ars17+ Online Art*, although nothing permanent was decided, and it is evident in the case of *Net.Specific*, that still links to works (pages) that no longer work.

As Cymene Howe et al. writes in the article *Paradoxical Infrastructures: Ruins, Retrofit and Risk* we constantly live among broken infrastructures, ruins of earlier projects, which no longer hold the same optimism they once did (HOWE et al. 2016: 550). According to Star and Ruhleder infrastructures become visible when they break and no longer do what they are supposed to do (STAR/RUHLEDER 1996: 113; STAR 1999: 381f.). When it comes to digital art, it has become clear that traditional analog art institutions find it challenging to do what they are supposed to do (used to do), including distributing and preserving. This in turn suggests a broken infrastructure.

7. The update

According to Chun, the digital is bound to the update. That which is no longer updated becomes unusable (broken) and is no longer cared for (CHUN 2016: 2). This constant updating relates to hardware and software, but it can also relate to the institution as a sort of 'hardware' for art. One of the reasons behind *Kiamsa* creating *Ars17+ Online Art* was for example the wish to stay 'up to date' regarding new art forms (MILLER/LIIMATAINEN 2017).

As digital art is challenging traditional and habitual ways of thinking about institutions, distribution, and preservation, it offers us a chance to rethink these concepts when it comes to digital art. In the case of the update Chun indicates that "to delete is not to forget, but to make possible other ways to remember" (CHUN 2016: 19). In the same way, by moving away from previous infrastructural arrangements and habits we can think of other possible infrastructures. What then is the updated institution?

To explore this question I talked to artists working with digital art. When it comes to preservation, artists Nora Al-Badri and Michael Takeo Magruder both agree with rethinking the whole concept (AL-BADRI 2019; MAGRUDER 2019). As digital art is more about keeping the artwork alive and accessible, it becomes more a question of maintenance rather than dead preservation (MAGRUDER 2019). And then not only a question of what should be maintained but also of longevity – for how long shall it be preserved? (AL-BADRI 2019) As Andreas Broeckmann has pointed out, the process of erosion and perishability (dying and disappearing) can be an important aspect of the aesthetic of digital artworks (BROECKMANN 2007: 201). In regards to preservation, this means they cannot be preserved in the traditional sense, that is, kept in original condition, when there is no one original condition.

Triantafyllidis agrees with Al-Badri and Magruder. What he and the artists involved with the *New New Wight* learned from the project was knowledge and experience, which lives on (is preserved) in future projects by these artists (TRIANTAFYLLIDIS 2019). Instead of preserving works, more focus could be put on preserving concepts, ideas, and knowledge. This is where intuitions have an important role to play, and not only as preservers but by actively allowing projects, concepts, ideas, and knowledge to be generated. And it is curious to see that while preservation indeed has been discussed in all cases mentioned, no solid plans

were made in regards to the future of these platforms at the time of their launch. This can of course relate to the financial or technical resources discussed earlier, but it can also suggest that the question of preservation has been less important, and more significance has been placed on the experiment.

When it comes to distribution, Al-Badri and Magruder talk about the advantages of a distributed system. Working with festivals and other public, less formal contexts outside of the institution, has the potential of providing wider contexts for presenting and experiencing digital art forms (AL-BADRI 2019). This would also enable random encounters, chance, and unexpectedness, and generate new audiences (MAGRUDER 2019). The *Digital Museum of Digital Art* also works through a distributed system. The museum itself only exists digitally, but through various pop-up events, collaborations with physical institutions, and festivals, the platform, and the art it presents become distributed and are made available in different analog contexts. Also here, in the case of distribution, institutions have a significant part to play in taking the initiative to allow new collaborative and distributed practices.

New ways of thinking about the institution, preservation, and distribution are needed when it comes to digital art. And when trying to figure out how these new strategies could look like, old infrastructural models might come in handy. Salazar-Caro addressed this in an interview about the *Digital Museum of Digital Art*. According to him, although the idea with the digital museum was to move as far away as possible from the physical reality and embrace the possibilities of the virtual, the use of traditional concepts and traditional architecture anchors the visitor in familiar surroundings (BORS 2015). Even if concepts such as 'museum', 'institution' or 'gallery' reflect an earlier system, because we are used to them, they might help us navigate the complex reality in which digitalization has placed us. And this is where cultural institutions have an important communicative task in helping us make sense of this reality and its implications.

Changing that which we are used to (habits) is difficult and takes time. Infrastructures are large and complex, exist in different layers, and are connected to other infrastructures. No one is therefore fully responsible for an infrastructure, and changing one might require other parts of the system or other systems to be changed (STAR/RUHLEDER 1996: 113; STAR 1999; 381f.). This means that to overcome some of the challenges institutions are facing when dealing with digital art, it is not enough to only change or 'update' the institution. Instead, other systems

might have to be changed or updated as well. As discussed above, such systems include financial and educational structures, but also our habits around and ways of thinking about art, culture, and institutions and what they do.

8. Conclusion

In the context of mass digitalization I have, by focusing on the concepts of distribution and preservation, in this essay discussed the challenges art institutions face when they are dealing with digital art. To do so, I have looked at four case studies that serve as examples of digital platforms for digital art. The studies show that the immediate issues, when it comes to these examples, were technical and financial. Using infrastructure theory I have been able to argue that these issues can be related to larger infrastructural arrangements, concerning funding, education, and recruiting processes.

Further, I have been able to argue that how digital art is treated in an institutional context is based on how we imagine and understand institutions and digital art, which is based on habits. These habits, which include organizational models and concepts such as preservation, live on in how institutions work with digital art, which can be limiting. As digital art challenges these habits, it has become difficult for institutions to do what they are supposed to do, which, in infrastructural terms, suggests an infrastructural breakdown. The difficulty in fixing this breakdown is that changing habits is challenging and takes time. At the same time infrastructures are large, intertwined, and complex systems, which means that changing one (in this case the institution and our habits around it) needs other infrastructures to change as well. This all suggests that an overall challenge when it comes to institutions working with digital art is an infrastructural one.

We need new ways of thinking about the digital, but also art, institutions, distribution, and preservation. Cultural institutions have an important role here, not just as communicators but also by allowing more experimental practices to take place and accepting that there is no universal way of working with digital art in an institutional context. Working with digital culture is in itself a process, constantly developing, breaking down, and changing and it can therefore never be definite nor flawless.

For further research, I would suggest looking more deeply into funding possibilities and structures for digital art projects. I would also suggest studying how knowledge of art and digital technologies is distributed in an institutional context, along with how educational programs for institutional staff are structured. Last but not least I would also suggest a closer look into how the digital is understood in an institutional context. As this essay has discussed the topics at hand on a conceptual level, I believe the outcome of studying the suggested would bring forth more practical solutions.

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