

The Archival Media Art Experience

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Abstract

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Content:	<p>The most immediate way of experiencing an art piece is personal contact with the artefact itself, however often due to the physical limitations of both art object and art consumer, the viewer's opportunity of encountering an given work in real life and real time is not always feasible. Archives, through media technologies, allow people to experience artworks from a distance. As a result the experience the artwork supplies may change. What factors determine this change, are they apparent to viewers of archives?</p>

Before investigating archival art experiences, the following main terms: experience, engagement, media art, technology, internet and archive need to be explored thoroughly. The following authors such as Dewey, Fenner, Ricardo, Zielinski, Idhe, Hine, Hogan and Manoff are but a few of those whom the thesis bases its theory upon.

As all experiences are highly personal phenomena, therefore interviewing people about their experiences was chosen as method for gathering such information. To guide the participants in the research, five different media artworks were chosen carefully as case studies to observe the particulars of the archival experience. Through the careful individual and comparative analyses of the views and opinions of the interviewees, this thesis anticipates that not only knowledge to specific each artwork shall be gained, but general insights will also be reached regarding archival experiences through the internet.

Declaration of Authorship

I, *Emõke Majohunbo Bada* born the: *09. 11. 1984.* in: *Kaduna (Nigeria)* hereby declare,

1. that I have written my Master Thesis myself, have not used other sources than the ones stated and moreover have not used any illegal tools or unfair means,
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Introduction

The preservation of new media art pieces often focuses on the continuing functionality of the artwork. What once was new and uncommon, first becomes ubiquitous, then aged and old. Cutting edge technologies do not stay as such and as the already fast pace of technology quickens, such works seem to have a paved path to becoming obsolete. The technology these pieces use may change and disappear, making their maintenance difficult or at times even impossible. Resisting the forces of time is a never ending process, especially when it comes to media arts conservation.

The materiality of media artworks are prone to the ravages of time in a different way than less technical ones. While traditional art needs to deal mainly with the decomposition of elements, media works face the additional danger of the technology they use becoming a thing of the past. The evolution of storage from floppy disks to CD-ROMs and DVD-ROMs is a prime example. Advancement of technology does not stop, from floppy disks and other physical storage formats users have moved on and use the internet to host their digital files, which has resulted in the illusion of immateriality. By transferring tangible materiality away from the users' hands, only the intangible experience the files give them remains.

The main research topic of this thesis is the pursuit of the media art experience through the internet as an archive. Whereas the most immediate way of experiencing an art piece is personal contact with the artefact itself, often due to the physical limitations of both art object and art consumer, the viewer's opportunity of encountering a given work in real life and real time is not always feasible. Experiences are determined by many different factors, some of which happen to be outside the power of the artist or the conservator. The experience given by an art piece is neigh impossible to quantify or conserve. The work itself however can be preserved and documented. Archives, through media technologies, allow people to experience artworks from a distance.

Technically mediated artworks are now becoming generally accepted. Festivals and conferences such as Ars Electronica, the International Symposium on Electronic Arts (ISEA), Today'sArt, Transmediale, the European Media Arts Festival, Resonate and the International Conference on the Histories of Media Art have helped place media art into the art canon and continue to do so. The international platform for sustainable access to media art, LIMA highlights the importance of preserving, distributing and researching media art. *"With knowledge and passion for both art and technology, these experts are insuring that video, digital and performance artworks can and will be presented now and in the future"* ("About LIMA", n.d.).

In contrast to this, the end or the death of technologies is also an aspect worth thinking about - Bruce Sterling's *Dead Media* project brings this issue to the forefront. *"Sterling's project*

confronted burgeoning fantasies about the immortality of machines with the simple facticity of a continuously growing list of things that have become defunct” (Zielinski, 2006, p. 2). Sterling’s *Dead Media* list in its current form can be thought of as an archive. It is a collection of technological artefacts, with descriptions accompanying each item.

The preservation of media artworks is a growing field, which is apparent in the book *Inside Installations - Theory and Practice in the Care of Complex Artworks* by Tatja Scholte and Glenn Warton. Different ways of dealing with age in media installations are written about in the book’s chapters, from restoring to refurbishing and remaking. Conservation of artworks or the assurance of their continued operation is usually considered vital to the life of art pieces. This however deals particularly with the technology and materiality of pieces and not with the effect of the works on their viewers. The experience a viewer receives due to an art piece is also an essential part of a work. Understanding what an experience is and how it may change is vital to this research.

A piece of work is finished in a way that is satisfactory; a problem receives its solution; a game is played through; a situation, whether that of eating a meal, playing a game of chess, carrying on a conversation, writing a book, or taking part in a political campaign, is so rounded out that its close is a consummation and not a cessation. Such an experience is a whole and carries with it its own individualizing quality and self-sufficiency. It is an experience. (Dewey, 1980, p. 35)

John Dewey’s book *Art as Experience* lays the groundwork regarding the properties of an experience. However, his understanding of the word is rather broad, so the views of other scholars such as Arnold Berleant, John Berger, Mikel Dufrenne, David Fenner and Francisco J. Ricardo will also be taken into account to narrow the definition. These writers focus not only on experience but on the factors of aesthetics and engagement as well, which are crucial to the creation of an aesthetic experience, which can be considered as a main aim of artworks in general.

Media artworks are arts of time (Zielinski, 2006). The following writers’ thoughts on technology and media art shall be considered in this thesis, Siegfried Zielinski, Don Ihde, Claire Bishop, Francisco J. Ricardo, Boris Groys, David Fenner, Wendy Hui Kyong Chun and Thomas W. Keenan, Nicolas Bourriaud, and Matthew Kirschenbaum. Technology is a vital and essential element of all media artworks. According to Ricardo media art is separate from traditional material arts such as photography, sculpture, drawing and painting. What sets it especially apart from traditional arts, is the fact that media art pieces are operated by processes. They are also only accessible to their viewers through processes (Ricardo, 2013). As processes take place in time, this strengthens Zielinski’s definition of media art.

The internet as an archive is a phenomenon that deserves careful attention. Ricardo lays emphasis on how technology is vital to managing memories today. Terje Rasmussen brings our focus to the fact that on the opposite end of remembering is forgetting, both of which are important in the construction of archives. Johnny Ryan, Peter Morville & Jeffrey Callender write about the particulars of internet and search technology, while Christine Hine, Reesa Greenberg, Marlene Manoff and Mél Hogan tackle the characteristics, uses and limitations of the internet.

Zielinski's description covers a very broad range of media art pieces, from movies to interactive installations. Covering the whole scope of media artwork experiences through the internet as an archive from different media art genres is a task deserving of a more substantial research than this thesis can provide. Therefore to narrow down the number of archival experiences to be investigated, five artworks were selected as case studies. The first one is the net.art piece *My Boyfriend Came Back From The War* by Olia Lialina. The second is the interactive installation *Legible City* by Jeffrey Shaw. *Mirror_piece* by Marx de Nijs is the third selected work. *Listening Post* by Mark Hanson and Ben Rubin is the fourth. *How to Construct an Orange?* by Attila Csörgő closes the list of art pieces.

Each of these artworks differ from each other in content and in the technology used. They were also all created in different years. Lialina's piece is a fully functional website that narrates the first evening of a couple after the boyfriend returned from war, accessible from any device that can connect to the internet. *Listening Post* is also an internet based art piece. However in contrast with the unchanging content of the previously mentioned work, *Listening Post* is a real-time data responsive environment, that continuously collects and updates its content from chatrooms and forums, before sorting it for display. *Legible City* and *Mirror_piece* are both installations, though the dimensions of the former are far greater than the latter. *Legible City* is an interactive work, users explore on a physical bicycle the virtual streets of various cities, where the buildings are made up of letters and words, creating a legible landscape. While *Mirror_piece* is not a strictly interactive piece, it shines attention on facial recognition technology and provokes questions about accuracy. *How to Construct an Orange?* is a subtle comment on the irregularities of form. Each of these works also differ in the experiences they give their viewers.

The reason for deciding on specific case studies rather than trying to deal in generalities can be attributed to Don Ihde's description of technoscience and the methodology it uses. Technoscience adds to the discussion of technological philosophy through the use of case studies. Instead of building theories from top to bottom, it is practice based and therefore learns and reads from specific instances, expanding insights upwards. According to Ricardo, a selection of a few works for analysis is satisfactory to arrive at worthy theories and conclusions.

Jussi Parikka's phrase *technological reality* opens up a few questions about the materiality of media in his book *A Geology of Media*. The term also brings forward the technologically mediated world humans currently live in. Electricity runs through most of the objects that are used, and interestingly while at first technological tools were created to make work and production more efficient (Zielinski, 2006), today the most favored articles also double as personal items. While laptops and smartphones in particular function as work equipment, more often than not they are communication and contact tools in addition to being the keepers of private memories.

Connection to the internet and experiencing media artworks through it happens via such tools. Experiences are phenomena that happen continuously and everyone has them (Dewey, 1980). Aesthetic experiences are usually connected to artworks and are influenced by several factors (Fenner, 2008). Therefore media art experiences are also aesthetic experiences. They are certainly affected by Fenner's factors, however when the internet as an archive becomes an additional layer between the art piece and its experiencer, it is definitely possible that there are further features that may impact the experience.

Experiences are highly subjective and personal empirical practices. This is the reason why gathering information about experiencing through the internet requires participants to interview. The unique perspectives of the interviewees about the internet as an archive and experiencing media artworks through it will hopefully result in a large range of responses. Just like the selected artworks, the interviewees are also diverse in character. The six of them are of various ages, from twenty-six to forty-seven. Four of them are women, two are men. Their jobs cover a vast spectrum as well, from teacher to data engineer to curator to artist to user experience designer. While the potential differences between the participants' answers due to their individual life experiences might seem counterintuitive, there will probably also be common features between them, which will hopefully lead to meaningful answers about the research topic of this thesis.

The interviews are divided into two parts. In the first one, the interviewees shall answer general questions about the internet as an archive. Optimally presumptions and attitudes about archival experiences will be uncovered in this section. In the second part, their answers are directly connected to the five chosen media art pieces at which they were asked to look at through the internet, before commenting on their experiences of them. Their feedback in both sections will be analyzed thoroughly, finding the opposites and parallels between the different answers. Furthermore connections may emerge and link to the literature that set the base line for the terms experience, engagement, technology, media art, internet and archive.

This thesis in a way is about the past as it is understood from the present. Media art history is also about the past and encompasses media theory too, both of which cover a far larger topic range than this study attempts to. While both media art history and media theory do deal with the

experiences media and media art offer, they do so in the larger context of history, theory and society. Understanding the specifics of media art experiences, how they work, how they may change is important for the future of each unique object and in general as well, not just for the furthering of conservation efforts and studies, but for coming scholars, academics, researchers and artists as well for the advancement of personal and public scholarly knowledge.

Archives store knowledge and are an institutionally accepted way to study the past in history. When there is no opportunity to experience an art piece in real life, often it is through archives researchers can find second hand accounts of them. These accounts may take various forms, from written descriptions and critiques, to interviews written and recorded, from images to videos. Archival experiences of media art pieces can be particularly complicated, as they depend heavily on the distinctive characteristics of the given work. The mediatization of archives adds an extra layer, inserts extra processes between its user and the materiality of the documentation of a piece. This most likely impacts in the case of media art pieces their archival experience. Electronic screens of all sorts stand as a interface to accessing digitally stored information. The internet is becoming commonly used as an archive, research into any topic often starts there (Hine, 2015).

Technologically mediated artworks will continue to be created in the future. A media art piece however is not composed solely of its technology. The content the work proffers its viewers are vital to the effect the piece has on them. The field of traditional arts is vast, comparatively media art is still young and not as firmly established. Interpretation, comprehension and of course experience are actions that are important to viewers of all artworks, independent of the materials and media they are compiled of. Audiences will probably also look at art pieces online, in archives not just in the physical world, therefore the documentation, the archival of these works is necessary and deserves particular attention.

Accessing the documentation and the documentation itself are vital components of a given media art piece's archival experience. Compared to the original experience, this archival experience in all likelihood will change and be different. The interviews through the case studies will hopefully shine light on these differences and illustrate how apparent these are to the viewers of media art archives. In spite of the limited number of case studies, this thesis anticipates that not only knowledge to specific each artwork shall be gained, but general insights will also be reached regarding archival experiences through the internet.

Before arriving there, first the most important concepts in connection to this topic need to be investigated thoroughly. The following three literature review chapters attempt to do so, starting with the terms experience and engagement, followed by technology and media art and concluding with archives and internet.

Literature Review

Experience and Engagement

For the purpose of this thesis John Dewey's investigation into the nature of experience in his book *Art as Experience* sets the tone for this chapter. The writings of Arnold Berleant, John Berger Mikel Dufrenne, David Fenner and Francisco J. Ricardo further the theme of experience and engagement. "*Things are experienced but not in such a way that they are composed into an experience*" (Dewey, 1980, p. 35). Experience is the interaction of the self with its surroundings, it is a process of living, and as such is continuous and constant (Dewey, 1980). Not every experience is the same however. Dewey divides experiences into two categories, experience and "*an experience*" (Dewey, 1980, p. 35). The former are characterised by their incompleteness, they happen to be not fully formed and do not particularly stand out against the backdrop of a river of experiences lived daily. These day to day interactions with the world are ubiquitous, thus do not warrant distinct attention.

An experience is "*when the material experienced runs its course to fulfillment*" (Dewey, 1980, p. 35). Elaborating on this statement Dewey writes that while any activity can be *an experience*, the common denominating feature of one is it "*is a whole and carries with it its own individualizing quality and self-sufficiency*" (Dewey, 1980, p. 35). This is how and why *an experience* emerges from the river of partial experiences that washes over everyone.

The qualities of one *an experience* and another can be far ranging, differences between them are varied and many. The reasons *an experience* emerges from the vast tides of experiences are also incredibly diverse. Sometimes a minute detail is enough, other times it is a monumental feature that causes one to appear. Every experience is seamless and their individual parts flow into one another without losing their distinct quality. Dewey also mentions that *an experience* has no breaks in it. There may be pauses, but these in themselves define and add rhythm to *an experience*.

Physical things from far ends of the earth are physically transported and physically caused to act and react upon on another in the construction of a new object. The miracle of mind is that something similar takes place in experience without physical transport and assembling.
(Dewey, 1980, p. 42)

Mental connections are crucial to having *an experience*. If connections cannot be perceived, *an experience* will be lost. For perceivers of an art piece, viewing is not a purely a passive experience. "*receptivity is not passivity*" (Dewey, 1980, p. 52). Engagement with the work is important, as according to Dewey, responsive acts are what lead to objective fulfillment. Humans actually

determine their own experiences through interaction between the subject and the object, the self and the world. *An experience* is difficult to unlink totally from the person experiencing it.

“Experience is limited by all the causes which interfere with perception of the relations between undergoing and doing” (Dewey, 1980, p. 44). An experience can be limited by anything that keeps it from becoming whole. Dewey, however specifically mentions the concept of recognition, which is a form of arrested perception. Recognition is the beginning of perception, where the viewer finds something familiar and instead of furthering the impression, jumps ahead into a conclusion, which might be a stereotype of some sort. Perception can replace recognition when observation is taken further and deepened. This often only occurs after the viewer realizes something is amiss with their original recognition.

An experience has a unity, a singular quality that runs through its different parts, sections and portions. Dewey also writes that recalling *an experience* is an intellectual exercise that can be language and text based. However in the moment, while living it, it involves emotions as well. Additionally *an experience* has an aesthetic quality which makes it complete. According to Dewey this is an emotional quality. Emotions connect and unify *an experience*.

Arnold Berleant in his book *Art and Engagement* underlines the holistic unity of experiences claimed by Dewey. He mentions that the view of experience as the composite product of separate, discrete sensations is inherited from empiricism. In contrast with Dewey he concentrates on what aesthetics mean to the arts, the relationship between them, how aesthetics influence engagement. *“Now the purpose of aesthetics is to clarify and explain our experiences with the arts, and all theoretical assertions must stand ultimately on their ability to do this”* (Berleant, 1991, p. 18). Right in the introduction, he highlights that the aesthetic dimension permeates all layers of history and culture, the affectional, the religious, the social, the practical, and the technological. Just like art, which is linked to many different factors at the same time to be fully experienced. Finally, he states in participatory aesthetics the most important is *“the contribution we ourselves make, a contribution that is active and constitutive”* (Berleant, 1991, p. 4).

Contemporary art is a challenge to traditional aesthetics, the Kantian disinterested attitude of separating the experience of beauty from sensory pleasure or ordinary emotions is no longer adequate. Art itself has changed, due to social and technological reasons. The art object as such often disappears and artists require *“the active engagement of the total person and not just a subjective cast of mind”* (Berleant, 1991, p. 26). This engagement draws attention to connections and keeping art distinctive but not apart from the world. Appreciative engagement as Berleant terms it, may take many different forms, depending on the artwork, its style, the time of its creation. The attention required by artists for viewers to interact with a piece ranges from subtle nudges to active

participation. Art, both traditional and contemporary insists on appreciative engagement, dropping the curtain on disinterested contemplation.

Berleant gives two reasons as to why this change happened: “*one is the succession of technological innovations that industrialism introduced; the second, the social and perceptual transformations of the modern world*” (Berleant, 1991, p. 33). The features of traditional art objects which include highly skilled craftsmanship, celebratory nature, uniqueness, and rarity is in big contrast with today’s design, practicality and price consciousness of mass production. Additionally, age is no longer a sought after characteristic, newness of objects has become more valuable, though it is fleeting. Art has become available to the masses. Technology and science changed the arts, photography and film taking a central role.

And artists have always known that the arts embody a technology that involves, with etymological literalness, a joining or a fitting together. But it is in modern architecture and the film, offspring of our industrial technology, that this integration has asserted itself most strikingly” (Berleant, 1991, p. 41)

The unity of the observer and the experience is crucial to aesthetic sensibility. Berleant also writes that the engagement artworks need can be quite specific and vary for different art forms. Landscape painting in particular needs perceptual participation to experience it, the viewer draws upon their knowledge of space. Architecture is more reactive, the design of building constructs how people move through them. In literature, the reader has to build and complete the written word into an experience. Music is a process that is shared by composer, performer and listener. Dance brings focus to the human performance.

“*Film is the mass art of our day*” (Berleant, 1991, p. 175). The chapter Cinematic Reality investigates the nature of the experience films give viewers. Films are not material in the traditional sense, its content is what is consumed, while the technology behind it is hidden. Films immerse viewers more fully in the experience than with other arts, engaging with it is far easier as it joins several senses at the same time.

Berleant refers to Michel Roemer. “*Film portrays the ordinary surfaces of things, yet it remains an object fashioned of images, not the things themselves*” (Berleant, 1991, p. 183). Film does not only cite experience, it can actually render it. Filmmakers use of sound, image, movement and time creates a unique universe viewers enter, understand and experience.

“*Alternatively one can forget about the quality of the reproduction and simply be reminded, when one sees the original, that it is a famous painting of which somewhere one has already seen a reproduction*” (Berger, 1980, p. 21). Experiencing a reproduction can lead to the disruption of

perception, also known as recognition. Berger specifically mentions that the difference between the art piece and the image of the art piece can lead to two outcomes. One in which the painting's experience is raised, or one where it becomes equal or less than than the photograph of it. Former is more likely when the reproduction is incapable of rendering the original painting in its fully glory. This would be the case with Goya's painting *The Dog*. The slight differences between the immense depths of the browns and blacks in the painting could not be captured by photography. This however is an experience that can only be felt standing in front of the original artwork itself.

In the case of a photograph, where there is no clearly denominated original, the difference between the live and archival experience it gives, might not be so clear cut. It could be exactly the same, it might be less, as the observer recognizes it and thus invests less attention in it, and finally it might be more as the viewer gives more attention to it, as the picture is larger or more detailed compared to the first occurrence of it they experienced.

"The work must offer itself to perception: it must be performed in order to pass, as it were, from a potential to an actual existence" (Dufrenne, 1973, p. 19). Mikel Dufrenne thoroughly explores the phenomenology of the aesthetic experience in his book, in which the above cited sentence is a grounding idea. He delves deeply into performance as a way of experiencing a work. First he takes theatre, music and dance, where indeed a piece must be performed so a spectator can experience it. The performance itself is not the piece, but the viewer judges the piece through the performance. He further states that all arts require a performance, however in more traditional ones (painting, sculpture) it is the artist creating who performs the act of creation.

How are other kinds of arts, the non-performative ones, experienced? Perceivers in Dufrenne's wording are spectators, who move between the identity of performer and witness, depending on the artwork that is being viewed. For those works that require an actual performance, the viewer cooperates, making them a performer, performing the role of audience, performing themselves in relation to a drama for example, by not participating in the piece itself, making sure they stay apart from it.

The witness in contrast to this is *"a registering apparatus placed at one point or another in space by the work as it organizes its own way of being viewed"* (Dufrenne, 1973, p. 55). The viewer must enter the work. The witness sees the orchestra, but is immersed in the music. Or in the case of a painting, they step into the painting, making themselves unreal as the work, stepping over the threshold of reality. They contemplate its aesthetic world, explore it from within, without taking on the role of the outsider.

"The work waxes or wanes, is enriched or impoverished, according to the warmth of our devotion to it and the meaning we discover in it" (Dufrenne, 1973, p. 25). The experience we have depends on our engagement. The experience can be influenced by the piece itself and potential

reproductions. Reproductions present themselves as the work itself, inviting the viewer to perceive it and not imagine the original. If the original is known and has been experienced, then that changes the reception of the reproduction. Dufrenne says that memories give a real but diminished presence, reproductions give a fuller, but proxy presence which must be imperfect. Films are technological, mechanical reproductions, which through the screen impress a strong vision onto the watchers.

David Fenner's book *Art in Context* is about aesthetics. Right in the beginning, he states that the aesthetic attitude has changed. Originally the goal of the aesthetic attitude was to lead to aesthetic judgement. Currently the aesthetic attitude leads to aesthetic experience. His investigation into what constitutes an aesthetic experience, is pertinent to this research.

Aesthetic experiences are, first, experiences. They are complex things, having to do with aspects as tidy as the formal qualities of the object under consideration and with aspects as messy as whether one had enough sleep the night before, whether one just had a fight with one's roommate, whether one is carrying psychological baggage that is brought to consciousness by this particular aesthetic object. (Fenner, 2008, p. 25)

The aesthetic experience is influenced by various factors. One of these is the aesthetic analysis, which is part of an aesthetic experience according to Fenner. The formal analysis is usually the first to be referred of all. These are the basic aesthetic properties of the artwork itself, usually referencing form, line, colour in case of a painting. These change according to artistic discipline. The aesthetic experience, however is not defined by purely formalities, there are other secondary factors as well that may have significant impact.

Fenner names them external factors, and he divides them into two groups, informational factors and subjective factors. There are three kinds of informational factors, the first is genetic information. Questions such as, who was the artist, when and where was the work created, what was the environment and society like, belong here. The second factor is comparative information, and answers to questions like what genre is the work, how does it compare to other similar works can be found here. The final factor is provenance information, which deals with the history of ownership and the value of the piece.

Human experiences are “*subject to a variety of stimuli that on the surface have nothing at all to do with aesthetics but nonetheless can play a palpable role in the construction of (any) experience*” (Fenner, 2008, p. 28). Subjective factors can have a great impact on the experience a viewer has when interacting with an artwork. They can be the following; psychological factors, physical factors and maintenance of distance. Emotional moods, distractedness belong to the first factor. The second, physical factors encompass both internal and external properties. The internal

ones relate to alterations in the normal situation of the human body, such as the effects of drugs, alcohol or even caffeine. External ones take into regard the properties of the environment, such as temperature, noise, comfort.

Finally Fenner mentions two other factors that are important with respect to the aesthetic experience. Associations is one of them. This is not a purely subjective, but also a relational factor because they arrive as a combination of the viewer's memory and the objective aesthetic facts of the artwork. He mentions three kinds of associations: recollective, emotional and cognitive. Recollective associations happen when a past memory is remembered. Emotional associations happen when the viewer connects an emotion to the art piece, which can be general (this music is sad), or somewhat specific (the wind reminds me of Denmark), or very specific (this smell reminds me of my father's cooking). Cognitive associations are those when the viewer of a piece finds a commonality with another artwork, and make a connection between them. They are directed and intellectual associations (Fenner, 2008).

The second factor that Fenner writes as significant to the aesthetic experience, is context. According to him, the definition of art in twentieth century was challenged immensely and as a result expanded greatly. The context the artwork lives within matters. He mentions Marcel Duchamp and writes that if his works were analyzed purely based on their formal aspects, he would not be such an important figure of art history. The value of his works lie in the challenges they issue. Alongside challenge as a context, he also lists three others. They are social, moral and taste contexts. Social contexts include ethnic and racial, class, gender, national or cultural, political contexts. Moral contexts are religious, sexual and violence contexts. Taste contexts are divided into only two, "good taste" and "my taste". The difference here is not between good or bad taste, but between varieties of taste (Fenner, 2008). An example would be the preference for Monet or Picasso. Regardless of the personal taste of art enjoyers, aesthetic experiences are actively sought. *"The viewer is looking to get a return on her investment of time, energy, and attention. To the extent that she is seeking such a reward, she is actively engaged in finding value"* (Fenner, 2008, p. 290).

Francisco J. Ricardo's examinations into the engagement aesthetic are also prominent to this research, as his focus is especially on *"how art or text created using electronic/mechanical media may resemble (or differ from) previous aesthetic encounters"* (Ricardo, 2013. p. 1). He continues by stating that this question would not be of concern, if new media were thought about the same way as old media. New technologies are often made with the aim of amplifying efficiency, however in contrast with this aim, new media art does not "produce" more efficiently and instead complicates the act of production (Ricardo, 2013). Attention is no longer reserved for the art object, but also for the actions leading up to its creation. These actions, processes take place in time.

To experience such works is to look, read, think, and feel differently about art, literature, image, and text because aesthetic focus is not on heightening our sense of an object or a work, but on what comes between us and the work - the act of engagement itself. (Ricardo, 2013, p. 2)

Ricardo explores engagement in media artworks as an aesthetic experience in itself. Instead of merely seeing, reading, thinking, and feeling in relation with an art piece, he centers his attention on what viewers can produce from the previously mentioned actions, which are reflection, meaning and critique. Ricardo claims that reflection is positioned in time between the perception of a piece and the judgements a viewer arrives at. Meaning however, happens after judgement takes the viewer back to reflection. Critique is the language that allows perception to become reflection, which leads to judgements that then arrive at meaning (Ricardo, 2013). *“Critique is a kind of reasoning that begins in the sensory experience, and takes the work and the viewer somewhere new - beyond what the viewer may have initially seen”* (Ricardo, 2013, p. 3).

“The more intricate the machinery of an expressive medium, the less dependent it is on art institutions to legitimize it as an art form” (Ricardo, 2013, p. 74). The historical reactions to new art are manifold. It may either be accepted, ignored or even attacked. If it is accepted, understanding of it may not be according to the time it was made in, as the public often uses older standards and criteria to critique a new piece of work (Ricardo, 2013). Ricardo writes, that it is the job of a critique to argue and explain how to understand the new in the now. *“If there is more than one way of perceiving, perception becomes a kind of critique. As electronic media are forms of perception, they contain both evidence and method of their own critique”* (Ricardo, 2013, p. 12).

“Engagement signifies a continual state, a relationship of progressive moments that persist without repeating” (Ricardo, 2013, p. 13). Engagement according to Ricardo is comprised of observation, perception, understanding and contemplation. He also mentions contemplation specifically as an extended state of holding not understanding. Not understanding is not the lack of comprehension, rather the realization that multiple understandings may coexist and not crowd out one another.

However we define new media - something I identify as media born outside of the traditions of material arts that include photography, sculpture, drawing, painting - my point is that we are not encountering work revolving around the idea of viewing, of a spectral aesthetic alone, but an additional engagement aesthetic - or many - that defines the new. (Ricardo, 2013, p. 9)

Technology and Media Art

“Nothing endures in the culture of technology; however, we do have the ability to influence how long ideas and concepts retain their radiance and luminescence” (Zielinski, 2006, p. 2). Zielinski likens the time of media to geological time, which grew only as knowledge and inquiries into the age of earth grew. He also writes, that to uncover and deepen knowledge in media archeology, *“We must also seek a reversal with respect to time, which - in an era characterized by high-speed technologies and their permeation of teaching, research, and design - has arguably become the most prized commodity of all”* (Zielinski, 2006, p. 11).

The title of Siegfried Zielinski’s book *Deep Time of Media* is poetic food for thought. In it he explores important questions regarding time, technology and the archeology of media. Historically *“one thing above all others is refined and expanded: the idea of inexorable, quasi-natural, technical progress”* (Zielinski, 2006, p. 2). This concept of progress above all, also brings along with it the idea, that newer is better. The past does not predict the future and Zielinski ponders what Michelangelo would have made of the Cave Automatic Virtual Environment (CAVE). Would such a skilled artist of drawing, painting, colours and geometry been interested *“in such an idea, weak and already backward a couple of years after its ‘invention’”* (Zielinski, 2006, p. 3). Zielinski doesn’t go into why the CAVE specifically lost its power so quickly.

A reason that some technologies lose their place in everyday life has to do with the nature of development, globalization and to some extent power. First of all, the evolution of technology differs vastly from the biological way of evolution. It is characterized by concentrated development, which is a result of being able to pass on stored knowledge with no great difficulty (Zielinski, 2006). Another reason technologies fade away is due to standardization. Technologically diverse but competing technologies became uniform, to become viable internationally. In case of communication and data networks, this happened quickly and early. Diversity fights a losing battle to standardization. Calculation and imagination are two opposing aspects on the same spectrum, as are global companies and individual artists. Latter use technology in a freer way, making them the testing ground for ideas and ideals.

In the chapter *The Economy of Time*, Zielinski investigates the life work of Aleksej Kapitanovich Gastev. Gastev is an interesting Russian character, who was invested in the transformation of Russia, with the help of machines. One of Gastev’s claims is that time needs to speed up. To achieve this he realized that people are too slow and lazy, therefore machines will lead the technological transformation of Russia, by controlling, organizing people in the most efficient way. Today, it can be said that technology controls people, one only needs to look at how much time

is spent on smart phones not actively achieving an outcome. This was probably not what Gastev had in mind though. Gastev loved technology, but it must be brought to attention, that in that time and period in Russia, machines were quite scarce.

Devices today are abundant. This plethora of machines however, are not waiting to be discovered, as during the avant-garde. The devices have to adhere to all sorts of rules and regulations, they are standardized and systemized. Creating something that is totally new, that is not purely the reprocessing of something old for media artists is a veritable task. It is quite the task also to actually uncover and know all the workings of a given technology chosen to create an art piece with. Most often the inner workings of a computer for example remain totally hidden, interaction is only possible through a screen projection that has been tailored to the user.

The screen as such has become a crucial element of media technology. What is seen on it is a two dimensional image. Photographs are two dimensional too, as are films. *“When watching media constructs, we have become used to viewing them as larger or smaller framed images”* (Zielinski, 2006, p. 270). Moving images bring time into the frame. Zielinski also says that electricity is a maker of time in arts. This energy is what makes art move, and movement always implies time. Zielinski’s most important point about media works is about time taken from people and given back to the viewer. He refers to Jean-Luc Godard, and says *“Designed or formed time must give back to people something of the time that life has stolen from them”* (Zielinski, 2006, p. 274). This needs to encompass not just cinema though, but other complex technical media works.

“Arts that operate with and through advanced technical media are arts of time” (Zielinski, 2006, p. 271). Time aside, media arts are notoriously difficult to define. They are a strange mixture, on one side, all arts require some sort of media to be expressed through, on the other side it refers to arts that can be linked to the development of technology in recent decades (Zielinski, 2006). The word media, was used to separate it from old, traditional art. The reason it became popular as a term, besides the fact it is a large umbrella term for artworks that include different kinds of technology, is because the word media signified the future, which was politically and economically accepted. Traditional art institutions were not so welcoming however.

“Modern science is instrumentally, or technologically embodied” (Ihde, 2009, p. 35). This can be said of media art as well. Ihde writes about the history of the philosophy of science in his book, *Postphenomenology and Technoscience*. Generally this philosophy is practice based, he lists Marxism and critical theory, phenomenology and existentialism, and pragmatism as examples (Ihde, 2009). Compared to technoscience, these philosophies observe technology as one defined subject, and more often than not, have a pessimistic attitude toward it. Technoscience in contrast makes specific case studies to engage in technological philosophy.

“Only through being technologically mediated is the newly produced knowledge possible” (Ihde, 2009, p. 55). Ihde writes that science today is in fact so tied into technology, it cannot be separated from it anymore. Instruments and technology is crucial to gain new scientific knowledge, it is through them human observation skills are enhanced to see what was previously invisible. Human embodiment is empowered and furthered with machines. Does technology bring with it new experiences into art?

With technology becoming ubiquitous, the focus of art is turning away from production, and is now more about “*artistic obsession with production processes*” (Ricardo, 2013, p. 5). Questions of beauty or scarcity cannot really be applied to processes. Additionally, art is not just created with new technological media, but it also can only be accessed through technology. Film is an example of this, as it is only experienceable through a process. There is a great difference between seeing a process and seeing through a process. Though latter is unique in art history, it does bear resemblance to the aesthetic of dance and music, which could be attributed to the former.

“While many artists use digital technology, how many really confront the question of what it means to think, see, and filter affect through the digital” (Bishop, 2012, p. 437). Bishop recalls the nineties, the expectations of technology changing everyday life. She notes however, that while the digital revolution changed the world of labour and production, art did not receive a similar jolt. Digital technologies are used widely, however it seems to be more for the transformation of the analogue into the digital, than for probing deeper questions such as the materiality of the digital.

New media art does so, however it is a field of its own, and does not enter the mainstream art world (Bishop, 2012). Interestingly, the digital brought with itself the renewal of interest in the analogue. Commercial viability is a reason for this, material products such as film are considered rare, expensive and difficult to copy which in turn makes them valuable on the art market. Digital videos in contrast are so easy to spread, technically no original exists and therefore cannot be considered a safe investment.

Production does not necessarily oppose reproduction, however. “One category - games - thrives on the reproduction of its experience; the other - art - from the uniqueness of its presence. Electronic art is between the two - another reason that game critics and contemporary art historians should be considering the new” (Ricardo, 2013, p. 82). Artworks that were intended from the beginning to be reproduced are harder to consider inauthentic. Kirschenbaum states that while a copy of the *Mona Lisa* can only be a copy compared to the original, one does not need to read the original manuscript of *Frankenstein* to arrive at the same literary experience. Ricardo also writes about distributed presence as a complex concept. Presence is not missing from electronic arts, but it not easy to pin down either. Also the method of image production and people’s access to it has a role in it. Seeing leads to capturing, which then allows for transmission with the aim of achieving a

response, and all stages are made possible through technological media (Kirschenbaum, 2008). *“But as images continue to be created by all, with limitless abandon, and with unconstrained distribution, the standing of artistic convention and institutional art may continue to recede from the authoritative back to the nostalgic”* (Ricardo, 2013, p. 5).

The abundance of content affects how people consume it. In reaction to Zoe Leonard’s work, where four thousand postcards are exhibited, Bishop remarks on how the way of attention has changed due to technology. *“Our eyes just scan the surface, in the rapid-fire skimming with which we browse news and reviews on our smartphones”* (Bishop, 2012, p. 440). In this case, viewers save time by giving works purely a cursory glance. This is also often the case with video works. In galleries, exhibited videos loop endlessly. In exhibitions that have many films, even the most conscientious viewers would consider whether or not they have the time to view all videos from beginning to end. *“The result is that we filter and graze, skim and forward”* (Bishop, 2012, p. 6). Boris Groys also writes about how people explore and engage with exhibition spaces. According to him, videos in exhibition spaces change the expectations of the space itself.

The visitor to a video installation basically no longer knows what to do: Should he stop and watch the images moving before his eyes as in a movie theater, or, as in a museum, continue on in the confidence that over time, the moving images will not change as much as seems likely. (Groys, 2008, p. 89)

Normally viewers have complete control over the time they spend there, engagement with unmoving images can be stopped and restarted by will alone (Groys, 2008).

Time incidentally is also thought of a characteristic of newness. New, however is not easy to define. *“The new should have no precedent, should break with the everyday, and thus should be difficult, if not impossible, to describe”* (Chun, & Keenan, 2006, p. 3). Newness is often related to age. In the case of new media art that Chun and Keenan apply themselves and other invited authors to, technology is part of newness. Given the immense amount of materials available to create from and with, *“The artistic question is no longer: ‘what can we make that is new?’ but ‘how can we make do with what we have’”* (Bourriaud, 2005, p. 8). This sentence somewhat shows Bourriaud’s disenchantment with technology. Groys writes that for art, newness is being alive and not inside a museum. *“The museum is repeatedly described as a graveyard of art, and museum curators as gravediggers”* (Groys, 2008, p. 24). At the same time, however artists aim to be part of museum collections, as in them, their works can stand the test of time.

Time can be said to be a selector of art, it factors deeply into collectors’ investments into art. Fenner interprets Walter Benjamin’s thoughts about understanding the value of an artwork. Riegl

maintains that to understand a piece, one needs to understand why it was created. This idea opposes the so called test of time, which says “*as time progresses, only those objects with lasting value will continue to enjoy consistent appreciation and praise*” (Fenner, 2008, p 128). Riegl would say that time is a context that adds to the understanding of the piece, and an artwork should be seen through the lens of the spirit and time it was made in, not in the spirit and time it is being viewed in.

In media, we move in the realm of illusions. Dietmar Kamper, philosopher and sociologist, used to insist in public debates that the verb illudere not only means to feign or simulate something, but also includes the sense of risking something, perhaps even one’s own position or convictions: I think that this is of crucial importance for engaging with media. (Zielinski, 2006. p 10)

Time is immaterial, and contemporary technology appears to be that as well. “*My point is not that this immateriality is chimerical or nonexistent, but rather that it exists as the end product of long traditions and trajectories of engineering that were deliberately undertaken to achieve and implement it*” (Kirschenbaum, 2008). According to Kirschenbaum computers are a material environment, that give the semblance of immateriality and it is the digital nature of computational representation that allows this illusion to persist. Digital archives and the internet strengthen this impression.

Archives and Internet

Archives have a staying power, their vast collections of organized or unorganized materials hide immense knowledge inside them. Many of them aim to be all encompassing, however no matter how wide ranging a collection is, they are still selective. Materials need to be accessible within them for users to find them useful. “*It is no longer possible to manage memory without managing media*” (Ricardo, 2013, p. 55). This is true when engaging with media art, however it also applies to archives. Regardless of the content being preserved, more and more technological media is used to conserve it. Digital copies of images, texts, films are made. The materiality of archives is moving into the seemingly immaterial territory of technology. The availability of digital copies are significant to scholars who cannot directly access the originals.

Archives can be thought of as a combination of time and memory. However, the opposite spectrum of memory, forgetting also deserves attention. “*Information always involves saving or remembering, as well as selecting and forgetting*” (Rasmussen, 2010, p. 109). Rasmussen writes

about collective/social memory. It functions similarly as an archive, the main difference being is that it actually impacts of members of society. The community that is affected by any singular archive is not as large. Social memory is “*contingently produced by present institutions, media and technologies and is oriented towards the future*” (Rasmussen, 2010, p. 109). Archives turn automatically towards the past. Selection in archives can be considered editing of the past and even the present, especially if the remembered material becomes part of social memory.

Archives are complex structures to create and navigate. In physical archives, materials need to be organized for them to be accessible. User friendly navigation is also required for them to be so. For the purpose of this thesis, the internet is one of the largest archives humans interact with regularly. Google and other search engines facilitate navigation using text and now even through images as well. In contrast with more formal archives, the content that amasses on the internet is not governed by a select few archivists or curators like with more traditional and formal archives. Either way, no archive can be fully complete, the issue of selection is a returning one, whether it is the responsibility of one person or based on the collective interest of the masses that browse and build the internet. Something will always be left out, intentionally or unintentionally.

When archiving and conserving media art, the medium, the material character and the expressive nature of a specific work weighs heavily into consideration of its preservation and documentation. Cultural institutions like museums invest heavily into their own systems and there is much research into best practices across different fields. The book *Inside Installations* by Scholte and Wharton hosts prime examples of such examinations into the maintenance of complex installations shining light on to the archival issues faced by museum professionals, such as the changing technologies that may render an art piece irreproducible in its original state, resulting in solutions like emulation instead of conservation.

Documentation is vital to institutional collections. The International Council of Museums (ICOM) underlines its importance and set a minimum standard for doing so.

Museum collections should be documented according to accepted professional standards. Such documentation should include a full identification and description of each item, its associations, provenance, condition, treatment and present location. Such data should be kept in a secure environment and be supported by retrieval systems providing access to the information by the museum personnel and other legitimate users. (“Code of Ethics”, 2017)

The exact particulars of carrying out the direction of ICOM is left up to each individual institution. When it comes to accessing these archives, those interested more often than not have to negotiate entry privileges with their various gatekeepers.

Users in contrast face much less opposition to the research on the internet as an archive, a store of knowledge. “*The Internet is a loose arrangement of connected but autonomous networks of devices*” (Ryan, 2010, p. 31). Protocols govern the communications between the unique devices and networks. On this distributed network, the physical location of data accessed via computers, tablets, smartphones could be anywhere in the world. This is not apparent to users, sitting in front of their screens, scrolling casually through topics distant from each other not only in content, but in their storage venues too. The internet as such seems immaterial, embodied only through active, functioning screens. “*The underlying technology which enables the diverse forms of data circulation, accumulation, and communication that go on becomes very remote from everyday experience*” (Hine, 2015, p. 9). Computers are a material environment that were intentionally made to give the illusion of immateriality, the digital nature of computational representation is particularly well suited to do this (Kirschenbaum, 2008).

Christine Hine delves into the phenomena of the internet, how to approach it and its many meanings for users in her book *Ethnography for the internet: Embedded, Embodied and Everyday*. She writes that “*the Internet has become a mass phenomenon*” (Hine, 2015, p. 6) and that it is becoming the “*first port of call for information-seeking*” (Hine, 2015, p. 7) for a lot of people. While the internet is indeed wide spread in many countries, there are still many places in the world where access to it is limited, either due to technological, structural or even political constraints.

“*The Internet has often become an infrastructure that underpins the things that people do, rather than a foregrounded activity that they do in its own right*” (Hine, 2015, p. 8). It has become the backdrop, the setting to many activities. Surfing it can be considered the digital alternative to the *dérive* (Bishop, 2012). Instead of walking the streets, the virtual space of knowledge hosted on the net is explored. Perusing the internet can consume quite a lot of time. “*The everyday Internet offers a wide diversity of experiences and an overwhelming array of information and interaction, which is an issue for the everyday Internet user*” (Hine, 2015, p. 15). This abundance can act as a limitation to the unwary, the impatient and impulsive art enthusiast internet surfer looking for particulars about an artwork. The myriad sources of vastly different qualities of knowledge shared on the internet requires time and effort to sort through.

Hine also asserts that “*going online*” is not a a specific form of experience, rather people experience being online as another embodied way of being and acting in the real world. “*Even if it may sometimes be immersive, then, the online world does not necessarily substitute for or replace bodily experience*” (Hine, 2015, p. 43). Already mentioned previously, the internet is indeed for many the most convenient way to find information. “*The Internet can, in fact, disappear as a remarkable facet of everyday life, as it becomes simply an infrastructure which offers a means to do other things*” (Hine, 2015, p. 14). People do not use the internet only to escape the real world, but

to make sense and understand events unfolding in their own lives (Hine, 2015). Using the internet to research artworks, therefore is a sensible conclusion art aficionados may arrive at.

The role of the internet in remembering artworks, exhibitions is quite important. *“Instead of an episodic history, the web and its tools can foster interwoven historical perspectives, layered approaches, and a myriad of interconnections”* (Greenberg, 2009). While Reesa Greenberg focuses specifically on exhibitions that remember past exhibitions, the following statement about the significance of the web as an archive has value for solitary artworks. *“Even if the web functions merely as an online archive recording more information and more exhibitions, there is the real possibility of different and more decentered histories emerging, histories that call the very concept of a landmark exhibition into question”* (Greenberg, 2009). Digitalization of the physical is vital to the archiving today. She however comments on the fact that major institutions *“have yet to resolve how to documentize, let alone redocumentize, their archives online”* (Greenberg, 2009) in such ways that take into account both the nature and character of exhibitions and the internet. Usually the web user only encounters a brief description and a few images of artworks, videos and photographs of the environment are rare. As a result forgetting exhibitions is quite easy for the public memory (Greenberg, 2009).

Greenberg highlights in particular the documentation of the multi-site one-day happening *Fluids* as a successful example of the online remembering of exhibitions. The piece took place in ten different locations. It consisted of building a rectangular ice structure which was then allowed to melt.

The photo-grids also record the re-invention of Fluids in two geographic locations in the same web space, making the simultaneity of the same event, invisible in actuality, visible virtually. The multi-modal forms of remembering Art as Life online can be read as a visual equivalent for the malleability of memory and the many means we use to shape it.
(Greenberg, 2009)

A description, a historic photograph, a poster share the page with two photo-grids a video and the list of venues, the work was presented. Sadly, on the date 25th of October 2017, a mere nine years after the event, one limitation of institutional online archives becomes quite apparent, their continued presence is dependent on the owner, the operator of the website. The documentation is only visible though the Internet Wayback Machine website today.

An advantage of the internet is that documentation of artworks is not solely under the control of a given institution.

YouTube, in particular, has revolutionized what is publicly remembered about exhibitions with material not found on museum websites such as videos of vernissages where the focus is as much on those attending as the art, videos taken clandestinely in exhibitions by individuals, or the addition of a soundtrack or commentary. (Greenberg, 2009)

Through video, sound also becomes recorded and becomes a part of the documentation. Additionally the body can be portrayed in the exhibition space through film, using the cinematographic tools of camera positions, movements and zoom. This is in contrast with photographs or a static camera recording. *“Moreover, individuals who record, interpret and post their own exhibition experiences on shared sites have become acknowledged contributors to contemporary modes of producing and disseminating knowledge”* (Greenberg, 2009).

Bruce Sterling’s *Dead Media Project*, that follows technology that has become obsolete was heavily dependent on individual contributions to it. The *Dead Media Project* materialized as a mailing list, where subscribers could add and did add to the ever growing list of outdated hardware, software, ideas and artefacts of technological media. The project illustrates a glaring contrast between the newness of technology, the immortality of machines with their eventual demise. Sterling writes on the project’s website, that with his friend Richard Kadrey, they are fascinated with media and would like to see a new book about it, *“A media book of the dead”* (Sterling, & Kadrey, n.d.).

“The methods for transmitting information shape the nature of the knowledge that can be produced” (Manoff, 2004, p. 12). In the *Dead Media Project* the knowledge that was shared with the list members took the shape of e-mail, which was then later collected and shared on the website in the form of note. These notes presumably are identical to the original e-mails, and can be accessed through categorical listings or a numerical index. There is also a separate category for new, as-yet-uncategorized notes. Manoff mentions Derrida, referring to his claim that archiving also produces and not just records an event. This is definitely an issue that needs to be taken into account when approaching an artwork through an archive. *“Whatever the archive contains is already a reconstruction - a recording of history from a particular perspective; it thus cannot provide transparent access to the events themselves”* (Manoff, 2004, p. 14).

Engaging with an artwork in the real world also means taking into account its surroundings. The space it is in, the ambient sounds that float through the air around it, the distance that must be kept from it, how it can be approached and even other art pieces in its proximity can influence a viewer’s experience of it. The particulars of engaging with an archive, engaging with the internet deserve attention as well. Traditional, institutional archives often have gatekeepers, who instruct the

visitor in the procedures of viewing a given archive, from the utilization of catalogues to search for a specific work, to the systematic repository system works are stored within.

“Appraisal is therefore always informed by material considerations, a space reserved for precious artifacts that best affords the telling and retelling of stories” (Hogan, 2015, p. 9). Hogan in the article *The Archive as Dumpster* states that selection is an essential part of archives, it also serves as process of valuation, as in physical archives space is limited, thus objects in collections are constantly evaluated and reevaluated, when a new item arrives, it might take the space of an old one. Additionally collections face reassessment when a new coordinator is appointed to manage it, whose values may not be identical with their predecessor’s. The limitations of the archive, is actually essential to it. In contrast, the internet has no such limit. *“However, unlike the conventional archive where storage limitations impact archival processes, the rubric of ‘the digital’ and ‘online’ (as) archive has been totalizing”* (Hogan, 2015, p. 14).

Endless amount of content is online, with ever more being created by the second. *“As a large unsorted store, the online archive, without assessment of its content, communities, and cultures of use, is allegorical to the dumpster”* (Hogan, 2015, p. 13). The order that can be found in institutional archives is not characteristic of the internet. On the whole, the internet does not have governing factors, it is fragmented and though structuring may be apparent in its smaller elements, these do not necessarily scale or transfer to its other parts. The value of the content on it is not necessarily clear either, but not because it is worthless but because we do not know how to value it outside of the scarcity/capitalist model (Hogan, 2015). Formal and informal knowledge on the internet mingles freely, there are no clearly designated experts. This may be considered by professionals as a disadvantage, however it is also an advantage as there is space for everyone to express themselves on the web. Hogan also writes that we lack knowledge *“how to best organize large amounts of data within a framework that is about more than the moment of search (and hence antithetical to long-term visions)”* (Hogan, 2015, p. 13).

Search is a vital function to exploring the web. Through search engines surfers can find information directly, not having to rely on hyperlinks to lead them from one website to another. *“Search is the worst usability problem on the Web”* (Morville & Callender, 2010). Searching an under appreciated skill, and its difficulties are not obvious at first. Most search engines, like Google for example, use free text to find and list sites that are relevant. Image search is also increasingly possible today. However should a phrase or picture be highly ubiquitous on the web, the user may find themselves with a long catalogue of irrelevant webpages. Good keywords, key images are crucial to finding information on the internet. Navigating the internet is not purely about the search function. *“In fact, we move fluidly between modes of ask, browse, filter, and search without noting*

the shift. We scan feeds, ask questions, browse answers, and search again” (Morville & Callender, 2010).

Browsing the internet after a while brings the user’s attention to the abundance and scarcity of information that both commonly occur on it. Not all subjects in all languages were created equal, as content on the web depends on the individual content creators’ and sharers’ interest. Hine validates the importance of the web’s aspect of sharing and discussion “*the Internet featured as a cultural site, in that it was a significant place where scientists met and discussed and where new spaces of knowledge production emerged*” (Hine, 2015, p. 31). However as an archive it has longevity limitations. Compared to physical archives, where removal of an artefact takes time and perhaps even invokes certain procedures, where the deterioration of an artwork can take decades, deleting pages on the internet takes merely a few seconds.

“*The Web constantly overwrites itself, but unlike the palimpsest, past iterations are cached in layers rather than made visible underneath current iterations, if at all retrievable*” (Manoff, 2004, p. 20). The Internet Archive website functions as an interface through which users can search for these layers. The totality of its cache cannot be confirmed however. “*Is the Web archive, at least in part, also an archive of its fissures, a trail of broken and faulty links and 404 errors? Should it also reveal the network’s ‘wear and tear’*” (Manoff, 2004, p. 13). This is a critical question about the nature of the internet as an archive. The hoard of information that can be found on the web gives the illusion of the eternal. The cloud is a space to keep digital material safe and infinitely accessible. Websites also advocate this impression about their content. According to Manoff, site operators may remove without a trace any material they decide. Scarcity on the web may seem like an anomaly, but it is not actually uncommon. “*The undocumented becomes precious*” (Manoff, 2004, p. 14).

Methodology

Experiencing media art through archives is a particularly interesting field of study. Through the literature review, different aspects of the the terms experience, engagement, technology, media art, archive and internet unfolded. Experiences are determined by many different factors, and while the most immediate way of experiencing an art piece is personal contact with the artefact itself, due to physical limitations of both art object and art consumer, the viewer’s opportunity of encountering a given work in real life and real time is not always feasible. Archives, especially those that do not allow for real life encounters, allow people to experience artworks from a distance through various media technologies. Gaining access to institutional, formal archives in itself is not an easy undertaking, which is why more often than not, the internet as an archive steps into their place.

As the internet has become more and more ubiquitous, it is a useful source of information for multiple purposes. Access to Google and Wikipedia via smartphones allows people to gain knowledge that might not be otherwise readily on hand. Gaining knowledge, building an opinion, an experience of media artworks is also possible through the internet as an archive. However, due to the limitations of the archive, it is probable that compared to a live sensual experience, the archival experience an artwork supplies is likely to change and differ, perhaps even missing vital elements present when viewing it live. The aim of this thesis is to discover the particulars regarding archival experiences of media artworks. This will be achieved by interviewing people about experiencing art through archives, followed up with questions connected to specific art pieces, building unique case studies.

“In order explore some varieties of engagement as an aesthetic experience in depth, it is not necessary or possible to produce a compendium of electronic works of art and literature” (Ricardo, 2013, p. 2). This particular quote is from the book, *The Engagement Aesthetic: Experiencing New Media Art Through Critique* by Francisco J. Ricardo. Ricardo maintains that to explore and understand, it is enough to select a few works to analyze, there is no need to compile and attend to extreme quantities of artworks to be able to arrive at satisfactory theories, ideas and conclusions.

Postphenomenology and technoscience, according to Don Ihde, have a similar attitude. The history of philosophy of technology, is a bit winding, especially since it acquired the name fairly recently compared to other branches of philosophy. Philosophy of technology comes from practice based traditions. The attitude in texts dealing with technology is usually negative and pessimist (Ihde, 2009). Additionally they engage, observe and criticize technology as a clearly definable general concept. Technoscience in contrast, prefers to use specific case studies to talk about the philosophy of technology, before attempting to draw general conclusions.

Following Ihde’s and Ricardo’s lead, this thesis will examine the internet archival experience of a limited number of media artworks. There are many artworks within different archives and collections that would benefit from deeper knowledge of how accessing a piece through technologically mediated archives influences the experience it gives. Why narrow the research down to media art pieces specifically? Unlike traditional art pieces such as painting, drawing or sculpture, technical processes are vital to allowing them to be experienced by viewers in the first place. With traditional art pieces technical mediation and translation only occurs once they are accessed through an archive. When viewed through an archive, media art pieces receive additional processes on top of the processes that run them and through which viewers access them.

How do viewers experience media artworks through archives? When perceiving a piece through technological media, what aspects of the work assists them in creating an experience of the

piece, that may be a substitute for experiencing the actual art piece in real time and in real life? How complete can such an experience be?

The thesis will focus on the experience of the following five different media art pieces; *My Boyfriend Came Back From The War* by Olia Lialina, *Legible City* by Jeffrey Shaw, *Listening Post* by Mark Hanson and Ben Rubin, *Mirror_piece* by Marnix de Nijs and *How to Construct an Orange?* by Attila Csörgő. *My Boyfriend Came Back From The War* is a website, by clicking through it, a narrative unfolds in front of the web surfer's eye. *Legible City* is a virtual space viewers can explore using physical, bodily actions that are translated into the three dimensional virtual space. *Listening Post* is a large installation, that conducts data scraping and analysis, then visualizes and sonifies the collected information. It is an immersive real-time data responsive environment. *Mirror_piece* is a work that uses facial analyzing software to recognize the person standing in front of it, using its inbuilt database of famous and infamous people. Finally *How to Construct an Orange?* is an installation where shapes that approximately resemble spheres float in the air.

The pieces are unlike in their meanings, shapes, forms and technologies. Their ages vary as well, respectively they were created in 1988, 1996, 2001, 2010, and 1993. They differ in the space they occupy in exhibitions, in the mode of engagement required for a viewer to experience it. They are similar though, in the fact that they all use electricity, which Zielinski considers as the common attribute that ties together all media art pieces. “*Art emerges in expressive works, not in categorical abstractions or media*” (Ricardo, 2013, p. 10). Merely using media, will not necessarily lead to the creation of an art piece. These case studies can be definitely considered expressive. Their expressiveness after being viewed through the translation of an archive, however does bear probing.

As experiences are subjective and personal phenomena, are only attainable through first hand observations by the experiencer, researching them cannot be based purely on theory. By interviewing individuals about the various art pieces, their personal thoughts and ideas will come to light about experiencing artworks through the internet. “*An empirical inquiry about a contemporary phenomenon (e.g. a ‘case’), set within its real world context - especially when the boundaries between phenomenon and context are not clearly evident*” (Yin, 2009). The art pieces as case studies foster the creation of empirical evidence by the interviewed participants, allowing for a wide range of responses that will hopefully unveil particulars about experiencing media art through the internet.

Working with the internet as an archive is an action that most of its users have done, and while it may seem an obvious choice for researching material, attending to the process and the results of it in a critical manner is crucial. Searching for information is the first step, this is usually achieved through a search engine. Google search currently leads the market with 78,78% (“Search

Engine Market Share”, n.d.). The majority of internet surfers use it. Search for information about the five media art case studies started on this platform for this reason.

Navigating search engines is fairly simple, after the input of keywords into the search box, more often than not a vast list of websites is served to the user. The sheer amount of pages received can often be intimidating, fortunately there are algorithms that attempt to order the results according to relevance or prevalence. The content of the links only becomes evident after clicking on them and reading the material shared on the various pages. Diligent researchers will sift through them to find as many valid sources as possible and then synthesize their findings. However, when faced with a lack of solid search results, a user might have to make do with what little information they happen to find, extracting as much as they can out of a particular document.

Online documentation is available online in the form of images, videos and texts on all selected case study art pieces, though the amount of it varies. As this thesis is concerned with the experience the interviewees receive from the given artworks via the internet, instead of asking them to research the works themselves, a selection of links about the media art pieces will be provided to them. Sharing all of the found material with the participants of this research might not be conducive, as even when looking at an artwork in a physical environment, people’s attention is not limitless. Additionally in exhibition spaces, usually the texts that are offered, if offered alongside any given installation usually are quite brief. How much technically mediated information is needed of an artwork for a viewer to gain an experience?

It is necessary to determine the exact description of each case study, to make sure there are no differences between what will be shared with the interviewees. The responses of each participant may only be compared to each other, if they all face the same investigative situation, the controlled experiment of experiencing the selected artworks through the internet. The given information needs to be limited and concise, so it is not tedious for the viewers to ingest and understand. Instead of compiling the most thorough and comprehensive documentation of the five chosen pieces from all applicable sites to give to the interviewees, the documentation of the various artworks will be sourced directly from the internet. Each participant will receive the same list of links to immerse themselves in. The content on the web addresses the interviewees will be given shall consist of a combination of photographs, texts and videos depicting and describing the selected media art piece. After viewing the list of links, each person will be asked give an account of their experience of the five art pieces.

All in all there will be six participants in the study Viktoria Papp, Katinka Óry, Tünde Mariann Varga, Balázs Bónis, Javier Chozas and Tine Colstrup. Viktoria Papp is a graphic, user experience and user interface designer in Malmö, Sweden. Katinka Óry teaches Hungarian literature and grammar to high school students in Szigetszentmiklós, Hungary. Dr. habil Tünde Mariann

Varga PhD leads the aesthetics and art theory lectures at the Hungarian University of Fine Art in Budapest. Balázs Bónis is a data engineer, currently working for Microsoft in Berlin, Germany. Javier Chozas is an artist living in London, whose body of work contains large scale mixed and multi media installations. Tine Colstrup is a curator at Louisiana Museum of Modern Art in Humlebæk, Denmark. *Marina Abramović - The Cleaner* was one of the recent exhibitions she has worked on. It is anticipated that the different backgrounds and experiences of the interviewees will present themselves in the answers they give, revealing different aspects of experiencing through the internet.

Each interview shall be divided into two sessions, with five questions each. The two sets of questions were impacted by the issues, terms and concepts explored in the extensive literature review. Through the interviews empirical, practical answers, evidence and results will arise regarding experience, archives, information and content, thus adding to the purely theoretical analysis of these terms in previous chapters.

The first part will set the scene, where each person will first need to answer a few grounding and general questions, about experiencing art through the internet, having technology mediate the works' properties to their senses. They will be asked their views about accessing artworks without the possibility to see them live, before receiving the case studies to discover. The following questions will be asked each interviewee.

1. What do you think about experiencing an artwork without seeing it live, only through technologically mediated archival means like the internet?
2. How do you think a live experience differs from an archival one?
3. Does the difference matter? Why?
4. What would you consider an informed/adequate archival art experience?
5. Is it possible to have an informed archival art experience without seeing the original? Why or why not?

Only after having answered these queries will the interview proceed to the second session, where questions about the archival experience will be connected to the five selected art pieces. Before commencing with the questions, the participants shall receive the list of links to study. The two parts take place independently, this way the artworks and questions in the second part will not inform the answers in the first. Each person shall receive the same questions for all art pieces. Only after they have engaged with the works in depth, will they be required to answer the following five questions about the artworks and the experience they gained from them.

1. Have you encountered this work before? If yes, was it in a live or in an archival situation?
2. What is your experience of this artwork? Would you consider it a full experience?
3. Was the information enough for you? What more would you need?
4. What parts of the experience do you think are missing because you saw it through an archive?
5. How different do you think it would be if you saw it live?

Analyzing the answers of the interviewees will be divided into six segments. The first part will give an account of the general attitudes towards the internet as an archive. The following section is a preliminary to the five case studies focusing on the individual media art pieces. The preliminary will summarize issues foreseen before the start of the second round of interviews. It shall report on the search process for the most relevant links for each art piece, the rationale behind each link choice. Each artwork shall have its own chapter, that begins with an as detailed description of the given art piece as possible compiled from the available online material. This will be followed by the impressions of the interviewees, assembled according to the five questions they were asked to answer. Their answers will be interpreted and analyzed taking into account the concepts and thoughts introduced in the three literature review chapters of the thesis. Hopefully interesting connections will be revealed about experiencing media art pieces through the internet, allowing for a deeper understanding of this phenomenon.

General Attitudes to the Archival Art Experience

What do people think about experiencing art through archives, through the internet? The first set of interviews resolved to obtain responses to this question from six different persons, of different age and interests. The interview participants are Dr. habil Tünde Mariann Varga PhD university lecturer, Viktoria Papp user experience and user interface designer, Katinka Óry high school literature teacher, Balázs Bónis data engineer, Javier Chozas installation artist and Tine Colstrup curator at Louisiana museum. The six interviewees were posed the same five questions. This chapter will first summarize examine their answers to each question methodically and then analyze them in the following part.

Question 1

What do you think about experiencing an artwork without seeing it live, only through technologically mediated archival means like the internet?

Tünde Mariann Varga stated that during her aesthetics and art theory lectures at the Hungarian University of Arts, it is always a problem to describe experiences to the students. In class she shows the documentation of an artwork and afterwards attempts to share the experience, however latter is practically inaccessible to other people. If a work is not created specifically for the internet as a medium, but is instead an installation or a video installation, a broad reconstruction can be attempted based on the images and and descriptions, however it will never give the same experience as when seen live.

Viktoria Papp is of the strong opinion that experiencing an artwork only via the internet is boring. She mentioned the *Mona Lisa* as an example of the contrast between experiencing the original and reproductions of it online or in print. After having seen copies of it, her live experience of the painting was not disappointing, but it was definitely a surprise when she was confronted with its true size. Jeff Koones' balloon pieces also drew her skepticism. On the internet they look pretty good, but it is surely different live when one has the opportunity to touch them.

Katinka Óry thinks that in many aspects the archival experience cannot award the same experience. A technical issue for example are the colours of monitors, which can vary from screen to screen, in addition to the difference from the original colours of an artwork. A non technical issue is the fact that people usually see art pieces in museums, where the artefact is in a venue that signals and prods viewers to accept it as an artwork. This context is not present on the internet, as the piece is taken out of its environment. Difference in the reception of the work may also be a result of this influence.

Balázs Bónis thinks that when one sees a performance or an image live that is a truer, realer experience. A painting live is still a more special experience compared to viewing a picture of it through a computer monitor. The archival experience doesn't even come close to the original.

Javier Chozas defends the way of approaching art based on experience. He is of the opinion that there is only one kind of approach through archival means, which is an intellectual one. He thinks that the main problem today with the relationship between viewers and art is that the experience has transformed into something weak, that it has lost its appeal. As a result people are not as interested anymore in image based formats, when they are surrounded by images. Javier Chozas says, when talking about archives, the overdose of information makes it difficult to

approach. If the art piece is related to research, which takes into account intelligence and methodology to gain an experience, it can be interesting.

Tine Colstrup said that the experience completely depends on what the work is. Some can work very well online, while with other's she would lack the here and now of the situation. Additionally the three dimensional character of a work can also be lost.

Question 2

How do you think a live experience differs from an archival one?

Tünde Mariann Varga's thoughts on this are the following, when viewing documentation, she can only imagine what it was like to experience, to see or to be in an installation, as there is also a bodily dimension. She needs her senses when looking at a piece that is not a picture but is process based, is in an installation, where she has a physical relation to the work. The triad of body and perception and exhibition space may come back very well through video or photo documentation but based on that only, she never reaches the same experience as when viewing a piece live.

Viktoria Papp noted the chance to ask questions when seeing an artwork live in addition to the opportunity of walking around it physically, looking at it in angles not possible through the internet. It does depend on what the item is, if it is a photograph of a painting or a 3D exhibition in a museum one can explore virtually. In the latter a little bit more is visible, but it is still not the real deal. She said seeing a painting live is incredibly different from experiencing it on the internet. The computer screen's physical size is limited, large objects appear small and material textures disappear on it.

The difference between a live and archival experience in Katinka Óry's opinion is the intensity. Seeing a piece live in its own context is more likely to allow place for the aesthetic experience according to Gadamer. Sitting in front of a computer, one is effected differently, perhaps the impact is less. Balázs Bónis's answer is in a similar vein, he says that watching a performance live has a much bigger effect. It is obviously a truer experience, than watching a video of it.

Javier Chozas' response delves into what the experience of an artwork is. His approach to this is to remember that humans are not animals and that although people live in a society in which the main sense is sight, there are other senses that also need to be experienced as well. He considers an experience as an event or happening whenever something makes viewers use their other senses. He mentions Slavoj Žižek's event concept, which means that this is something unique. The problem of archives is that they never make a person feel like they are living something unique, because it is an intellectual thing that can be repeated. The sensual experiences of the smell of plaster or wood a

sculpture is made of, the roughness of the material in the hand can not be repeated, as it become a part of one's past and that makes it something similar to life, and in that sense special. Javier Chozas does not see the point of trying to make the archive a way of experiencing art.

Tine Colstrup once again emphasized that the difference depends on what the work is. Looking at an archival version is basically sitting at one's desk with a computer or with an exhibition catalogue. This can be very nice sometimes and it can lend more focus to the work itself, as in the live situation the viewer is present with their body, they often share the space with other people, sometimes one is not prepared for what they are about to experience, or they have not tuned in. In a live situation there is a lot of noise, which is not really there in the archive version be it online or be it in a catalogue. This has its pros and cons of course.

Question 3

Does the difference matter? Why?

Tünde Mariann Varga felt that she had already answered this question. In Viktória Papp's opinion, the difference matters a lot. And that is why she personally likes to see, smell, notice all the little scratches on an artwork. One should probably not touch an art piece. It is a different experience compared to looking at an photograph which is predefined and final. It is important to be there. Katinka Óry also thinks it is important, because the experience can be much more intense live than when viewed through some kind of media. Balázs Bónis says that it is vital for the experience to be important to the person experiencing it. An art piece can only convey an experience if it creates an important experience for the person viewing it. Effective artworks make important experiences and if a recording or an archive cannot do the same, then that will not be such a great experience.

The difference also matters to Javier Chozas. In his view, if the digital extension of life keeps being pushed, people will progressively lose contact with what they are made of. That means experiences will not be real, but also that decisions in life are strategic, social and political responses to what is happening. They will be digital, which means mathematical or driven by interest in matters. Art is a way to enhance and expand the way life is perceived and lived. If that contributes to make a more mathematical world, then people are getting removed from their roots. Javier Chozas wants to have people feeling human and that is something that digital art cannot help to do. The more robotic, cybernetic people become, the more inhuman they will grow to be.

Tine Colstrup repeated that the difference depends on the work, and on what the viewer needs to gain from the piece. Sometimes it matters and sometimes it does not. She draws upon her own experience, stating that she sees lot of art live, but views around eighty percent through the

internet. That is sometimes for very dry research, where she is not really going for the full experience, because she needs to research something fairly quickly and for that the archival experience is just fine. Colstrup would never compare this to having experienced a work, however it can be revealing enough just to have the archive piece.

Question 4

What would you consider an informed/adequate archival art experience?

Tünde Mariann Varga says, that depends on the piece. One can only think about specific works and the problem is knowing the difference is only possible if one has experienced the art piece live and then seen the archive. Only then can one know approximately the deviations between the two experiences, but it is not possible to know if the archive gives back the experience because one already knows it. On the other hand, if one sees the piece through an archive, then it is not possible to know what the experience would have been like. When she has already seen a work and then looks at it through an archive that has a description, images and perhaps even a video recording, then the experience of the original comes back to her. However this only happens because she already had the experience. When seeing documentation only, she thinks she can envision how the piece must be like, but that might only be possible, because she has seen a lot of artworks. Therefore if she has seen a lot of a specific type of piece, she can imagine what yet another of that kind would be like.

Viktória Papp thinks that the more details a description or an image shares of an artwork the better. That way specifics are available to the viewer, shedding light on the reasons it was made, what influenced the artist, from their environment to the prevalent politics. Without this information, fifteen years later understanding a work might not be possible. One will not know and appreciate the piece, without knowing what exactly happened. Having data is important.

Similarly to Tünde Mariann Varga, Katinka Óry also claims that it depends a lot on the artwork. Taking a painting for example, it is vital enough to know what kind of technique was used to make it, because on the photo reproduction its texture might not come through. In the case of a sculpture knowing the original size of the image is essential. Technical information about what is not visible through the photograph is needed, but this depends on the piece itself, as a complex installation is even more difficult to experience through an archive, as it is located in space in contrast with the two dimensional plane of a painting. An installation should give a more elaborate experience of space.

Balázs Bónis believes it is not enough to see works of art, but the stories, histories behind the pieces are needed too. Obviously only those who are interested will want to experience a work, and put in the work to find out the details of a given piece, searching for content that will make it even more interesting to them.

Javier Chozas approached this question by asking himself what kind of archive he would be happy with in an art piece. He mentioned the *Tate Thames Dig* by Mark Dion as an archival piece he approves of. It is a large double-sided old-fashioned mahogany cabinet in which many different objects found on the shores of the Thames were placed, it is an archive of sorts. The piece reflects on archiving, the found materials within it create a way for the viewer to make a narrative of the elements in it. The ordering of the items are conducive to creating stories and the archive is a base for that. It makes the viewer imagine and that is the big gap between digital and analogue archiving in art in Chozas' opinion. He says that there are neurological experiments that demonstrate when reading on screens, interacting with them information is not retained. It is like surfing the web, whereas physical, bodily interaction is more instrumental to engagement.

Tine Colstrup would need a lot of factual information, that is key to her. For paintings it is fairly easy, as most often the dimensions and material are available. If one is lucky there will also be an installation shot showing the work in space. With other kinds of work, really solid and dry information about duration is required, alongside some pointers to the original context of the piece, such as where it was, how it works, what are its components. The visual sources and textual sources are a must to understand what the piece even is.

Question 5

Is it possible to have an informed archival art experience without seeing the original?

Why or why not?

Tünde Mariann Varga clearly states no as an answer. She mentions an article by Reesa Greenberg, which deals with conceptual works that only have photo documentation and speaks a lot on how museums deal with such situations. What can and what should an institute exhibit when a piece is ephemeral and can only be approached through its documentation? When she encounters such works, reads the texts about them and views pictures of them, she thinks she can imagine what it was like. However when she talks to students in class about artworks she can only share her experience of a piece in an stimulating manner when she was in it, and then her experience always differs from the description she read. The photos of a work are similar to her images of the piece

she sees though. However whenever she sees only documentation, she really thinks she can roughly put the work together.

Viktória Papp in contrast says it depends on the art piece. If it is something that can be viewed on a projector and you can understand it, it could give the same experience even if it is projected in a museum. However a piece like Wim Delvoye's *Cloaca*, a digestive machine needs to be seen live to understand what it is about. One can read descriptions about enzymes and understand them. However she saw the work live and just remembering it caused her to feel nauseated. It was something amazing and really smelly, and just as if someone had taken a dump in the exhibition space. Live one can see how much effort went into a given artwork. She thinks that is very important.

Katinka Óry is of the opinion that it is possible to gain some kind of experience through an archive, but she is sure it is different than if she saw the original art piece. She does not necessarily think that the value of this experience would diminish for all artworks, but it would surely be different as a result of mediatization. When viewing through a medium, one also views the medium itself. It depends on the art genre just how close the live and archival experiences can be to each other. Installations for example cannot be experienced as thoroughly through archives. However if the technical conditions are adequate, images of paintings are more likely to resemble the original experience as a photograph can portray at least some of the features of a painting, even if not all. An installation, which is spacial can not be really reproduced via a two-dimensional photo.

Balázs Bónis thinks that it is not possible to have an informed archival art experience without seeing the original, however he tempers that with a little yes, depending on what the art piece is. He believes it is possible to take a high quality image photograph of a painting, that will help people understand the whole work but a performance or a sculpture that has spacial elements may not translate as well over the internet. It is interesting that technology may evolve and with VR glasses viewers may be able to experience these in an virtual archive which allows for manual handling. Balázs Bónis believes that the future will bring further developments, currently however not all artworks can be conveyed through an archive, although some pieces do have that ability.

Javier Chozas says that it is possible. He draws attention on the one hand to the convenience of archival practices and on the other to what may be achieved through them. He mentions Aby Warburg's interesting approach to anthropological archives and the most important art event, Documenta, where amazing projects that use archives can be found. One does not need to touch bones to talk about massacres for example, here Javier Chozas refers to a piece by Alfredo Jaar where Jaar has thousands of images of massacres, but in which no dead are visible and that is terrible. Javier Chozas says with research based practices there is no need to go to the original source, citing Warburg's archival practices where by exploring the archive, poetry or a whole

narrative can unfold. He thinks archive based art is a discipline in itself. He thinks archives allow people to have an intellectual experience.

Tine Colstrup thinks that for many works it is totally possible and for other works where a spacial component is key, where the body is thought in as a part of the work, the archive will give a different experience. This experience can be rewarding as well especially if the artwork is tuned into match. In the case of performance art, if the performance documentation is made for the camera or with the camera in mind, then that will be a different version that can stand on its own legs. Of course it will not be the live performance situation, the two are different things, however she feels one can gain a fairly good understanding of how the piece would be in real time and space. This really does depend on the medium though, whether it is film, text, performance, sculpture, or photography, it will be different for each case.

Interview Part 1 - Analysis

The responses to the five questions about experiencing art through archives, through the internet revealed a lot about the interviewees' attitudes. The first question brought forth their opinions about experiencing art via technologically mediated archival means. All of the participants stated that the archival experience definitely differs from the live one. Varga and Óry both stated that the experience can not be the same. Bónis thoughts on this are that the live experience is truer, more real. Papp went further and described archival experiences as particularly boring. For Chozas the archival experience is an intellectual one, not a sensual one. Colstrup said that while the experience would depend on the given work, the presence and spatiality of pieces are what can be lost through an archive.

These answers happen to be inline with with John Dewey's idea of experiences. He states that there are two kinds of experiences, *experience* and *an experience*, of which only the latter are memorable. In this sense all interviewees happen to be of the opinion that the archival experience is not *an experience*. Recalling experiences is a text and language based intellectual exercise (Dewey, 1980). As such, looking at documentation of artworks can also be thought of as an intellectual activity, however instead of invoking a viewer's memory, it invokes their imagination. Photographs and videos are images, though they could be considered as a language in themselves. Through them, people can construct space mentally.

A common thread in the participants accounts was mentioning that the quality of an archival experience is dependent on the art piece itself. If an artwork is not created for the medium of the internet, or the medium of the archive as such, the documentation of the piece can only foster a

mental reconstruction of the work. The size, materiality of pieces and spacial presence of works are attributes of works that are not conveyed through computer screens particularly well.

Berleant's words on engaging with an artwork being dependent on the piece rings a bell here. Documentation of works are similar in nature, they can be a combination or all of the following: text, images, sound, video. If the way of engagement with an art piece is similar to its documentation formats, then the archive experience may come close to the original, otherwise, the documentation's engagement mode is a layer that stands in front of the live experience, distancing the viewer from it.

Óry was the only person, who commented on the nature of the internet as an archive, comparing it to museums. She said that museums add context to artworks, the institution is a setting where exhibited pieces are viewed as art, merely by being present in the space. Chozas mentions the magnitude of images, information as a problem of archives.

The second question attempted to coax particulars about the differences between a live and an archival experience. The sensual, bodily, spacial experience a live encounter offers was a prominent observation by most of the interviewees. In addition the context of a piece is another important piece of information which may not be transferred through the interface of a screen. Finally experiencing through an archival is something that can be repeated. The uniqueness of the one time event of encountering an artwork in an exhibition, using all senses to experience it can not be duplicated. Colstrup mentioned the differences between a live and an archival situation. In the former distractions may be present and can influence engagement, while in latter the absence of such disturbances may strengthen focus on a piece. Fenner's investigation into the factors that determine an aesthetic experience may also be relevant for the archival experience. Engagement with art pieces are influenced by external factors, which may be less intrusive in archival situations.

The third question about the importance of the difference was one that was answered through the previous questions. The answer is that the difference matters a lot. Why? Because a live experience in contrast with an archival one, is not predefined and is more intense. The difference does depends on the work, and on what the viewer needs to gain from the piece.

When dealing with archival experiences, reproductions are a vital part. Reproductions however, can cause the disruption of perception (Berger, 1980). An example of this, was when Papp mentioned her experience of the *Mona Lisa* after having seen many reproductions, her idea of the painting based on them, was vastly different than the actual image, when she saw the object live. Of the two possible outcomes of disruption, the *Mona Lisa* was equal or less than photographs of it. Alternatively for a different artwork, the experience could also be more than the reproduction. When researching artworks, the full experience may not be necessary.

The fourth question asked what the interviewees would consider as an informed archival art experience. Some participants made it clear, that this is heavily dependent on the artwork itself. Others put emphasis on the need for technological details about a piece, its size, its material. The context of a work was also important to them.

Fenner's factors of aesthetic experience factor highly into the experience an artwork gives. Should these factors be conveyed through an archive, they definitely have an effect on the archival experience an artwork may supply. The basic aesthetic properties of a work deals with its materiality, its form, these depend on the artistic discipline. The formal and spacial properties of a work according to the interviewee are what translate the least through a computer screen. There are informational factors that are part of a work's aesthetics, knowledge about the history of a piece, its creator belong here. Óry mentioned that via the internet, the context a museum provides to a piece can be lost, thus lessening the experience. Context of the work is also an important factor of engagement, which can be social, moral and taste contexts.

The answers to the fifth question of whether it is possible or not to have an informed archival art experience without seeing the original artwork were quite varied. Varga clearly said no, as documentation of works are only conducive to building an idea of what the original experience could have been like. Papp, Óry, Bónis and Colstrup are all of the opinion, that this depends on the artwork, some pieces lend themselves more to be experienced through archives than others. The magnitude of effort put into creating an art piece is something that is more likely to be observable live, than in an archive. When viewing documentation, the medium, the tools used also effect the experience. Viewers can only see the work together with the medium they are observing it through, thus latter become inseparable from the experience itself. Colstrup highlights performance documentation when it is created taking into account the medium of the camera, which leads to another yet equally valid version of the given performance. Chozas says an informed archival art experience is possible for art pieces that are archive or research based.

Ricardo writes that electronic media are forms of perception. Viewing artworks via computer screens, adds an additional layer to experiencing an artwork. The equipment through which art pieces are approached effect and transform the experience. The way information is shared, shapes the knowledge created (Manoff, 2004). It is also important to remember that the interface becomes part of the process of engaging with the archive. The content that archives have, the content the internet conceals within itself is vast. As a result, engagement with material becomes superficial (Bishop, 2012). Hine also underlines that the abundance of information can be a limitation to internet users. Coming back to Manoff, material in archive are selections, reconstructions of events, thus can never record and thus reproduce an event, art object, happening

or performance in its entirety. Art experiences are unique events, however when an artwork is documented and archived, the experience becomes standardized.

Preliminary to Case Studies

To gain more responses from the six interviewees participating in this research, it is necessary to gauge their reactions regarding specific media artworks. During the previous question and answer section, it became quite clear that to arrive at answers they would be confident in, speaking generally of accessing artworks through technologically mediated means was not enough.

To address this limitation, five different artworks were selected to use as case studies. These works are different in many ways, but their common feature is that they are all media art pieces, that is they are arts of time according to Zielinski. The interviewees were given documentation of the following five works: *My Boyfriend Came Back From The War* by Olia Lialina, *Legible City* by Jeffrey Shaw, *Mirror_piece* by Marx de Nijs, *Listening Post* by Mark Hanson and Ben Rubin and *How to Construct an Orange?* by Attila Csörgő.

After the first round of interviews, each participant received the exact same e-mail, listing the following art pieces with hyperlinks to their documentation.

- 1) Olia Lialina - My Boyfriend Came Back From The War
Work - <http://www.teleportacia.org/war/>
Text - <http://aaan.net/olia-lialina-20-years-of-my-boyfriend-came-back-from-the-war/>
- 2) Jeffrey Shaw - Legible City
<http://www.jeffreyshawcompendium.com/portfolio/legible-city/>
Text and video are on this same webpage
- 3) Marnix de Nijs - Mirror_piece
Work - <https://vimeo.com/21229526>, <https://youtu.be/xsQVRyfD-Ms>
Text - <http://v2.nl/archive/articles/interview-with-marnix-de-nijs>
- 4) Mark Hanson and Ben Rubin - Listening Post
Work - <https://youtu.be/dD36IajCz6A>
Text - <http://ibiblio.org/nmediac/winter2014/Articles/ListeningPost.html>
- 5) Attila Csörgő - How to Construct an Orange?
Work - <https://www.youtube.com/watch?v=WiOZhkpqEuM>, <http://www.c3.hu/~acsorgo/angol/narancs1.html>
Text - http://www.c3.hu/~acsorgo/angol/narancs_leiras.html

Construction of the list raised a couple of questions that needed to be taken into account. Using the internet as an archive meant that the information regarding the artworks was found there. It would have been possible to combine and synthesize all knowledge sourced there about each piece to give each interviewee the most complete collection of information possible. This however would have held within it the inherent bias of the author formatting it for consumption. The decision to use existing links removes this personal bias and created a situation similar to if the interviewees were finding information themselves. As the internet is the archive from which the documentation was sourced, just giving the name of the artist and their artwork may have been sufficient for each participant to then search for information on the individual pieces. However, as the focus of the research is on experiencing the artworks, not on the process of search, in the interest of time, providing a preselected list made more sense. The final issue that needed to be taken into account is the amount of information to be shared. Too much could result in the participants not reading and looking at everything, too little would not give them enough knowledge about the artworks to form an opinion on its experience.

The case studies start in the next section. Each artwork will be dealt with separately. First they shall be described elaborately. This is then followed by the answers to the five questions the interviewees gave, which will be rounded off with an individual analysis for each piece. The chapter will end with a comparative analysis of the participants' answers.

Case Studies

Olia Lialina - My Boyfriend Came Back From The War

"I became an artist only because MBCBFTW became a piece of net art" (Dekker, 2016). Olia Lialina created the internet art piece *My Boyfriend Came Back From The War* in 1996. This piece became twenty-one years old in 2017. In 2016 on the work's 20th anniversary, it was exhibited at MU in Eindhoven alongside different variations of it, created by other artists. The following webpage myboyfriendcamebackfromth.ewar.ru compiled links to these iterations, with short descriptions of each piece, listing their dates and creators. Lialina calls the site itself the *Last Real Net Art Museum*.

The work is available to the public via the website <http://www.teleportacia.org/war/>. The work is a simple Hyper Text Markup Language (HTML) based website. The dominant colours in the whole work are black and white. The site uses text and image hyperlinks and frames to unfold a

narrative. The images are either still or moving ones, all in the GIF format to be precise. Interacting with it is fairly simple, all the user needs is a browser with internet and a mouse to click on the hyperlinks. The artwork takes place only on the screen, which can easily be changed to show something else, making it immaterial. The materiality of the piece that the viewer can experience, however is tied into to the tool used to access it, the computer. This doesn't differ that much from a film or video, where the content of the film can only be accessed through technical media. It is mediated to the viewer through through technology.

My Boyfriend Came Back From The War is an art piece of time, as it operates and conveys itself through technical media (Zielinski, 2006). In 1996, the content of the piece touched many people, especially in the context of the Soviet-Afghan war, that ended in 1989 after over nine years. The artist Olia Lialina is Russian, and the narrative of this work of hers, in brief is about the reunion of a woman with her war veteran boyfriend. The internet itself became available to the public in the late eighties. As a technology it was new to artists. It has been used a creative medium since 1994 by the *net.art* group. The technology had its limitations, bandwidth, file sizes, programming languages were all part of the package Lialina had to deal with. Today the same limitations still exist, however their quantities have changed. Bandwidth has risen, encouraging the growth of file sizes, not to mention the plethora of programming languages users can create works in.

My Boyfriend Came Back From The War at its core is an HTML website that uses visible and invisible frames, texts and images some of which are hyperlinks while others not. As a viewer engages with the work, the order in which they explore the multiple choices given to them hinges purely on their own decision only. “*It was never about a war, but about a difficult conversation that doesn't lead anywhere, and of course about the browser*” (Dekker, 2016). The work itself does not mention the war except in the opening sentence. Clicking through the various hyperlinks does not lead to a satisfying conclusion, in fact it may raise in the viewer questions like the following. Is this the right order to go in? May different meanings be reached by following a different path? The many little variations do give a sense of difficulty of connection between two people. Lialina managed to exploit the media specificity of the browser exhaustively.

She achieved this through her extensive use of frames. “*HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document*” (“HTML Frames”, n.d.). A frameset refers to several frames within one browser window, which may be organized vertically or horizontally in columns or rows. By the end of the piece, the screen is divided into seventeen visible compartments. “*Lialina, a former film critic, was looking for a way to make Internet film. She refused to reach for digital video formats, but tried to create an Internet specific cinema instead*” (Bosma, 2016). Frames were essential to this achieving this, however they are just one of the tools she used to make the piece.

Whereas film uses moving images and sound to create a narrative, Lialina used frames, still and moving gifs and texts. This actually happens to be more in line with how comics and graphic novels are created, even though they only use still images. Pages are often divided into frames, structuring the narrative. Instead of flipping pages, on the website progression in the piece is a matter of exploration using the hyperlinks the viewer comes across. The images and sentences that appear in the work serve as hyperlinks. The icon of the mouse indicates which pictures or words are also hyperlinks. The arrow icon changes to that of a hand when it hovers above a hyperlink. Clicking on a hyperlink leads to the unfolding of the after dinner situation. The viewer receives details in the form of either images or words which build the atmosphere of the piece. In addition, clicking leads to the fragmentation of the screen, at first into two then three parts.

The panel on the left side stays constant throughout. There are only two images present here, a still one of the couple conversing and a moving one of a flickering window. It is a continuous reminder of the characters and the location, a fixed reference point the viewer cannot lose. The other two panels each break into eight more sections. As more parts become available, the user has more options in deciding the order in which they would like to unveil the piece. The reading of the work is also particularly interesting as the words and images can be combined and understood in different ways, which depends on the individual viewers' choice. "*A final characteristic is that all the interpretations always end with nothing, with black frames*" (Dekker, 2016). The piece ends in silence, after the characters have said all.

The materiality of the piece comes into play during the exhibition *Olia Lialina - 20 years of My Boyfriend Came Back From The War* at MU in Eindhoven, the Netherlands. This exhibition took place in 2016. The original piece was shown on a glass table, using an old monitor and computer, laying visible the cables and router needed for the work to function. The internet connection was slowed down. *My Boyfriend Came Back From The War* was created for a 800 x 600 monitor. This screen supports the artist's intentions best. The development of screen technology affected images the most. Pictures calibrated for a smaller resolution monitor will not be as detailed, precise or appear in the right size on a retina screen. Internet art seems immaterial, but the materiality of technology has quite a profound effect on it.

There is one more edition left. For this one I think it makes sense to sell the complete package: a computer, a monitor with the right resolution (800 x 600) a slowed-down server connection, an emulator with the old Netscape browser and all the other settings. Everything is emulated, simulated and fake, but the work is alive in its most precious state. (Dekker, 2016)

Lialina has a professed interest in preserving the internet and her own work. During the years, she did modify *My Boyfriend Came Back From The War* several times to keep it. These modifications were not aimed at the content of the piece, but more at the backend, at the experience it gave. A pertinent example would be her effort in keeping the loading time of the website as slow as possible to sustain the experience of waiting intrinsic to the piece. The lack of speed is most evident when the images load into the browser.

The process of the artwork is what is important when experiencing it (Ricardo, 2013). Like other new media artworks, *My Boyfriend Came Back From The War* is only experienceable through processes, through the active engagement of the viewer, and can be only seen through the technological processes that power it, which are the internet and the computer's inner workings.

To fully appreciate Lialina's work, the website needs to be accessed via desktop computer. Even if the original desktop monitor is not available, it can be substituted by any other desktop screen. The view ratio of newer screens is still much closer to the original monitor for example, than the screen of a smart phone, which changes the ratio of the site drastically. This material alteration actually effects the process the viewer can see the work through. Engagement with the piece is essential to the aesthetic experience (Ricardo, 2013) and when the experienced process differs from the intended process, the work may lose some of its strength.

My Boyfriend Came Back From The War, does not exist in its original form. Through various technological feats the online version anybody can access today is the closest emulation Lialina could reach. As such it can be considered a reproduction, where the experience it gives is just about equal to the original one (Berger, 1980). The work has to be performed to be experienced (Dufrenne, 1973). In this case the viewer clicks through the piece with the mouse, that is how they engage and experience it. It can only be seen through a process (Ricardo, 2013).

Question 1

Have you encountered this work before? If yes, was it in a live or in an archival situation?

This work was not familiar to Varga, Óry, Bónis and Chozas. Papp had fleetingly encountered it before. Colstrup had seen it referenced before, but she had not experienced it. Varga mentioned that the piece reminded her of hypertext literature.

Question 2

What is your experience of this artwork? Would you consider it a full experience?

Papp's first reaction to the work, was the fact that she may have lost her artist soul, or that her profession overshadowed her engagement. First and foremost she looked at it as a website. When she read the interview about the possibilities and properties of HTML at the end of the nineties, she recalled her own website making experiments when she was still a child and the questionable aesthetic decisions she made and the pride she had in them.

Óry said that as this piece is a digital artwork, it would have offered pretty much the same experience if she saw it in a museum, therefore she did not think the work would be different in another setting. She found the work rather depressing, but that was probably its goal and would have affected her the same way in a museum. Bónis mentioned that the work gives a direct experience. As it is practically a website, anyone has access to it, the viewer receives the piece straightforwardly, without mediation. Unless there is a better quality version of it exhibited somewhere, he thinks the work gives a full experience.

Varga immediately connected the piece to hypertext literature which were also created for the computer medium. She saw no difference between this work and a hypertext novel. Regarding the exhibited version of the experience of *My Boyfriend Came Back From The War*, she also thought it would be the same. Compared to a hypertext novel, the slowness of the work is frustrating, as speed was not an issue for hypertexts that were kept on local storage. She felt that she went back twenty years in time, and while the work may be interesting from a media archeological point of view, it was incredibly boring, and just as terribly maddening as hypertexts were in their time.

Costrup would consider it a full experience, as she has never experienced it differently. She found it a very poetic work and really liked it. It is a fairly simple piece, which is also due to its age and the technology that it uses. She thought it not too large, not too complex, not too heavy, so she could actually experience it.

Chozas considered the experience as failed one, however he based that on his personal opinion of the work. He found playing around with the text, the links, the dividing windows very boring.

Question 3

Was the information enough for you? What more would you need?

Óry wasn't sure whether the texts accompanying all art pieces were vital to the individual works in this research, so she did not place much emphasis on reading them. Regarding this net.art piece she could not give a definitive answer. Colstrup just intuitively explored the work, and did not read much of the text either. Bónis found this work the most difficult to understand. One would need to

spend a lot of time in order to comprehend the sentences, nuances by only clicking the links in the website. He found that the text provided helped him understand the work more, however as the experience of the piece was direct, the interview just an little additional plus to the piece.

Varga thought that the information was too much compared to the work itself, as she found it boring, rudimentary and one-sided. Twenty years ago her opinion was that it is good that artists are experimenting with new media, however there are much more exciting things going on. The technology was not developed enough and that made it slow and boring and frustrating. Today the world is much faster than then, and she still has the same impression. Without the accompanying interview the work is practically unpalatable to her. Perhaps it was difficult to program, however it is not user friendly. It would be interesting to someone to whom the work and its type is new.

Papp said that the information was enough for her. She also emphasized the interview and the help it gave in understanding the work. Without it she would have dismissed it as a website kids had fun making, like she had done back in the day. The text helped her understand and put into context what the piece was about. The date of the work for example is not visible within it. Additionally knowing that the artist is Russian shed light on why she found the English sentences in the work a bit strange at times.

Chozas said that the information was too much for him, he is of the opinion, that a good piece should not need a lot of information. When he started reading about the artwork, he found it extremely boring so he stopped and looked at the piece instead. He did that with all five works, some he thought were more successful than others.

Question 4

What parts of the experience do you think are missing because you saw it through an archive?

Papp felt that there is no other way to experience this work. The monitor in 1996 was probably thicker than the one she uses now, however the code and the browser did not change much. The interface, the development of computer technology, equipment did not take away from it. Colstrup felt that this was a very adequate experience of this work as an early, poetic web-based piece, so she would not know how or where else to experience it. While Varga in contrast was not sure what exactly the piece is, she reflected on the fact that everything that belongs to the piece is probably online and nothing is missing from it. It would look the same on any carrier, although on a computer from 1996, its old-time character would be more apparent.

Óry did not think that anything was missing from the experience. In her opinion, this was the only piece where it did not matter if she had seen it live or through an archive, as it is a digital

artwork. Chozas thought the same, that the reception was quite accurate and he doesn't need the archive. Bónis drew attention to the fact that the piece might not be considered technically an archive as it gave a direct experience. He also said that there is no difference between the two kinds of experiences. In an exhibition one would probably receive the same experience. Although in an art show, one might miss not seeing the whole exhibition.

Question 5

How different do you think it would be if you saw it live?

Bónis did not think that it would be different, unless seeing it as a part of a show, where the show itself would also have an effect on the viewer. Perhaps it is even better to see it individually, in an archive, on the internet while at home, because then one has enough time to look at it, to ponder the flow of whole piece and the conversations in it. Colstrup simply did not know how it would be different.

Papp felt that she saw the work live, she doesn't think she missed anything by not seeing it in 1996. Although if she had seen it then, the code and technology would have awed her much more. Today she is used to smartphones and HD and high-res images, so compared to that it looks dated, however reading the interview resulted in her looking at the work in a different light.

Chozas, Öry and Varga all said that there would be no difference. Varga further elaborated and said this is because it is not a piece suited for an exhibition space. Hypertext novels were not made by accident to be viewed on computers. The context of this work differs from a hypertext fiction and looking at it from a media archeological view point also effects this context, but the piece would not differ. Looking at it on an old machine would probably be a different experience for those who are not familiar with old computers.

Analysis

Olia Lialina's piece *My Boyfriend Came Back From The War*, was the first work that the interviewees experienced. None of them had seen this work before. It was created online, it is a net.art piece, as a website the internet is its medium.

The experience the interviewees had with this piece were quite varied. Bónis, Colstrup and Öry responded they received the full experience, as the work was created directly for this medium. The archive here did not stand as a mediator in this case. In a live situation, they would still have needed to interact with a computer and be connected to the internet to experience the piece.

As a work the opinion of the participants in the research was quite divided. Óry thought the work depressing, this was probably a result of the topics present within it. Chozas adamantly stated that the work was boring and considered it a failed experience. Varga also said that the work was boring. She found that it reminded her of hypertext novels, the most notable difference was the speed of loading, which was much slower compared to hypertext pieces. In contrast, Colstrup was of the opinion that the work was poetic and she liked it. Papp did not view the website as an artwork, her profession as a graphic and user experience designer affected her engagement with it. The accompanying article and the work itself prodded her recall of her own HTML experiments.

Some of the thoughts expressed by the interviewees are reminiscent of Fenner's factors. associations in particular. Óry's view that the work is depressing is an emotional association. Varga's connection of the work to hypertext novels and Papp's recollection of her childhood website programming sessions are recollective associations, they both linked past memories to the artwork.

The interviewees' quantification and qualification of the information they received was also enlightening. Non of them thought that the information was too little or lacking, in fact Chozas and Varga both believed that compared to the work there was far too much information provided. For Varga the accompanying text salvaged the work a little bit by giving her background context, though she still thought it extremely dull. Chozas found even the article boring and stopped reading it pretty early on.

Colstrup and Óry did not read the whole article for different reasons, former cited the lack of time while the latter was of the opinion that a work should speak for itself, without text explaining it. Bónis and Papp read the text. Bónis found the article very helpful to understanding the piece, without it he would have needed much more time exploring the piece to fully understand it. Papp thought that she got enough information. She was quick to point out, that without the article to reveal the context of *My Boyfriend Came Back From The War* she would have dismissed the website as a youthful experience similar to hers, instead of viewing it as an art piece.

Non of the interviewees felt that they missed something because they saw the work through an archive. Bónis questioned whether the piece could be considered technically an archive, as the experience it gave was direct. Óry said that because it is a digital artwork, it does not matter if one sees it in an archive or live. Chozas felt similarly. Colstrup and Papp felt that there was no other way to experience the work. Varga mentioned that as all components of the piece are online, therefore nothing is missing from it.

Seeing the work live would not bring any differences according to Chozas, Óry and Varga. Varga said this is because the work is not suited to exhibition spaces in general. Colstrup wondered how the work could be different live. Papp thought she saw the work live. Though in 1996 the technology would have awed her more, as visuals today are far more sophisticated. Fortunately the

article gave her the context in which to view the piece through. Bónis mentioned that in an exhibition the experience would be different, because as a part of the show, the show itself would influence the viewer in addition to the work.

My Boyfriend Came Back From The War is a unique piece because it was created for the internet. Therefore the experience it offered was a direct one, because the whole work was available to the interviewees to engage with. Interestingly the work alone was not necessarily enough to create appreciation for the work itself. The accompanying article revealed much of the context and history of the piece to several of the participants, thus changing their opinions and expectations of it in several cases. The work also invoked strong recollective associations, personal and professional ones. Live and archival experience in this case can be considered one and the same.

Jeffrey Shaw - *Legible City*

Jeffrey Shaw's installation *Legible City* is well-known work of his, it has appeared in quite a few exhibitions. This computer graphic installation has three different versions, each are named after the city map they are based on. The Manhattan version premiered in 1989, the Amsterdam version in 1990 and Karlsruhe version in 1991. The content of the three versions also differs. The Manhattan installation has eight separate fictional monologues, by the following protagonists: ex-Mayor Koch, Frank Lloyd Wright, Donald Trump, a tour guide, a confidence trickster, an ambassador and a taxi-driver. Each narrative has a unique colour, allowing the cyclist to follow specific paths. The other two installations use archival historical texts describing events in that particular city. These installations' visuals also differ from the Manhattan version in another way.

In the Amsterdam (1990) and Karlsruhe (1991) versions all the letters are scaled so that they have the same proportion and location as the actual buildings which they replace, resulting in a transformed but exact representation of the actual architectural appearance of these cities. ("The Legible City", n.d.)

Silicon Graphics Inc's innovation the IRIS workstation allowed Shaw to use real time rendering to create flat-shaded 3-D graphic objects. The viewers of the work could explore the virtual space shaped by the texts. Additionally they could also follow the various narratives of the words and sentences within this urban landscape. The piece consisted of a large projection of words and letters, with a stationary bicycle in front of it. Participants can explore the 3D virtual world by getting on

the bike and cycling. There is also a small monitor attached to the bicycle, where the pedaller can see their exact position on the map.

The piece has a two more versions, a prototype with a particularly minimalistic 3D wireframe, which used a joystick to navigate. *The Distributed Legible City* is a heavily modified version of *Legible City*. Instead of one large projection, it consists of several interconnected bicycle stations with CRT monitors, letting more than one user be present in the virtual world at the same time. Communication between the pedallers is also new. Technology is an essential part of this work, no matter which version is being scrutinized.

“*The pace of technological change can be measured by ‘The Legible City’*” (Riding, 1995). Regarding the creation of these specific artworks, time and technology are linked immensely. The aging of technology is one way they are connected. French critics in 1995, during the third Lyons Biennial of Contemporary Art were of the opinion that next to new virtual-reality technology, Shaw’s work looked dated (Riding, 1995). The program, the software, the visuals and the content the pedaller sees and engages with make the piece what it is.

The screens belonging to the piece are essential to the experience it gives. Viewers usually interact with screens as if they were smaller or larger frame images (Zielinski, 2006). To explore this piece and its screen, viewers need to engage with it and by doing so they can manipulate what is shown on the screen. Often moving images, videos in exhibitions confound the viewer, they only have limited decisions in regards with engaging with them (Groys, 2008). They have no control over them. This is not the case with *Legible City*. Engaging with the work and then exploring it is a decision a potential pedallar has to take. The work does not offer itself up to those who do not interact with it. As an immensely technical piece, those who do decide to engage with it, come away with an experience they may not have had otherwise. New knowledge and experiences are available to viewers through technical media (Ihde, 2009).

Materiality and immateriality are combined in a fascinating way. Explorers of any of the *Legible Cities* are connected to the physical and the digital at the same time. Their body is present in the real world, they manipulate physical machinery (a joystick or a bicycle) to discover the digital world that is revealed to their eyes on a screen or a projector. Engagement with the visual material starts through the body. Processing the seen cityscapes is a cerebral activity, the brain is needed to understand the city. The work needs to be read. “*Shaw's work creates a complex balance between visceral memory, similar to the arts of memory, and textual learning*” (Merritt, 2001). Merritt says that *Legible City* examines memory and learning and the connection between language and concept learning. Reading a virtual three dimensional space, and moving through it bodily at the same time is an active effort. Through it the viewer gains an experience of a city in a way that is neither readily available, nor reproducible in an alternative way.

To attain aesthetic experiences, artworks need to be performed (Dufrenne, 1973). This is in particular true of *Legible City*. Unlike a photograph or a film for example, to be able to know the work in its entirety the viewer needs to actively engage with it. In this case this means sitting on the bicycle and pedalling around within the virtual world to explore it. If they do not do so, the piece will not reveal itself in its entirety. Of course it is possible to observe another person interacting with the work. A good sense of the experience may be gained doing so, however some parts of the totality of the experience will be lost. Only those who interact, not those who observe can make decisions when it comes to exploring the world within the piece.

The actual engagement with the piece is what makes it unique and memorable. Each user will have a different experience, as the roads and turns they take within *Legible City* is dependent on the choices they make while on the bicycle. This process varies from viewer to viewer, there is no particular way of exploring the work, which allows for a multiplicity of experiences.

Question 1

Have you encountered this work before? If yes, was it in a live or in an archival situation?

Javier Chozas was the only person who had encountered this piece live at Ars Electronica.

Question 2

What is your experience of this artwork? Would you consider it a full experience?

Bónis felt that from all the works, this piece had given the most indirect experience. Here the video seemed to have more emphasis, even though it was superficial. Through it he did experience what could have been like to ride the bicycle and read the stories on the projection. The video did not give a full experience of the piece, it was very far from a live experience. He personally did not find the piece definitive, it did not engage his interest. The documentation at the most could arouse the viewer's curiosity to go and experience the work live. The video and the images were lacking when presenting the piece, the text helped him understand it.

Papp's first comment that was that *Legible City* is an early virtual reality piece. She also said that the experience was not a full one, because she could not sit in front of the screen, pedalling on the bike and experimenting with navigation through the city, through the texts. While she did think that it was explained nicely, reading about it is not the same as having actual control over the projection and defining one's own speed of exploration of the work.

Óry also mentioned that there is a great difference when looking at someone cycle compared to biking yourself. Watching this video, she could not participate and influence the screen. The video had a documentary nature, the narration during it emphasized this.

Varga said that as a result of the documentation, she could recreate the whole piece, however to actually experience it she would need to be there, on the bicycle. It is possible to imagine what it is like live, however the experience itself does not come through at all. It is great that this work is recorded and that she has information about it through its good documentation. Via the pictures, the size of the work comes through quite well, but the experience of moving through the city does not. However it is really interesting that such a work exists and how else would she know about it but from the internet, which she uses to discover and learn about most art pieces. She uses knowledge found on the web to imagine what works are like.

Costrup said as it is completely different from *My Boyfriend Came Back From The War*, therefore her experience is also extremely different of course. She saw *My Boyfriend Came Back From The War* as a fresh piece in a way, because she clicked her way through it and it exists in a finished form. In contrast with Jeffery Shaw's piece, she missed out because she was not there, was not able to move through these cities as she is not at the steering wheel, which is of course an important factor of this work.

Chozas described his live experience, he thought it was a fun piece, very fun to cycle on a bicycle. He did not know much about the piece originally and now that he read about the work, he did not find that this information made the piece better. According to him it is very difficult to read on a bike words that come one after the other, therefore it does not make much sense. What he thought when he saw it and what he still thinks now is when it was created it was very well programmed. While that was a long time ago, it was a good example of technology in art. As a piece he thought it is very boring, and silly to just cycle and see words that one cannot really read. His problem with the documentation of all the works except *Mirror_piece*, is that they are like video pieces, which do not affect the viewer in any particular sense.

Question 3

Was the information enough for you? What more would you need?

Chozas, Colstrup, Óry, Papp and Varga all thought that the information was enough. Varga said it was perfectly good documentation of an interesting piece. Papp entertained the idea of transferring the work to today's technology and putting it into virtual reality accessible through VR goggles. She abandoned the idea saying, that it would then become a different piece. Bónis would not have

minded additional exploration videos, showing various routes through the city. Watching and reading the city in such videos would have given him a more complete experience, as he missed being able to discover the city himself.

Question 4

What parts of the experience do you think are missing because you saw it through an archive?

Most of the interviewees mentioned that they missed pedalling on the bicycle. Bónis and Papp had a similar observation about the lack of agency, the need to make their own decisions to control the work. Bónis regretted not being able to read the texts in the piece, while Papp wanted to participate too, instead of only watching others have fun. Colstrup in particular missed the steering wheel, the entire interactive component. Instead the experience was in a way like being walked through a computer game, seeing someone else playing, but not participating.

Óry pointed out that the bodily, physical, tactile experience was absent in addition to the fact that the artwork in the live situation is spacial in its nature, which she could only view in two dimensions in the video. Varga's opinion concurs with hers, she does point out that this is an immersive or close to immersive piece, which does not translate to a computer screen. Chozas missed the fun of thinking that one is traveling, and that was important to him.

Question 5

How different do you think it would be if you saw it live?

Varga states that it is absolutely, completely different, because live it is an experience, while the documentation though it is pretty decent, just gives information about the work, similar to an art history book, where the painting is described, but one never sees the original, only its reproduction. Bónis thought that it would be very different as the documentation of the piece did not really arouse his interest. Seeing it live, trying out the bike, would be more engaging. In this case, he missed the experience itself. Papp would have surely sat on the bike and pedalled in the city, to see, to try going in different direct directions. Óry would have found it more exciting if she was not just an external, passive viewer of the piece but a participant instead. Colstrup judged from the installation shots that the piece should give an immersive experience, a virtual reality kind of situation, which she did not get through the archive.

Chozas was the only one who could compare this experience to the live one, and according to him, it was very different. It was fun to be there, discovering the work, surfing the city with the bicycle, however it is not actually conducive to reading.

Analysis

Legible City by Jeffrey Shaw in contrast with the first work was not created to be experienced online. While it has digital elements that actually define it, it still is very much a physical piece, an installation to be encountered in space. From the six interviewees, only one was familiar with the piece, Javier Chozas. At Ars Electronica, he had the opportunity to see and try the work live.

Viewed through the internet, using documentation the experience was not a full one for any of the interviewees. While it was possible to imagine and recreate what the piece was about and what it must feel like mentally, the most common observation regarding what was lacking from the archival experience was the personal bodily movement of cycling and steering the bicycle in front of the screen, the opportunity to decide how to explore the virtual cities in the piece. The absence of participation in the piece inserts a great distance between the viewer and the documentation.

According to Bónis, this work supplied the most indirect experience. The video could be considered a documentary, as it introduced the work, narrated its properties and described the concept behind it. The interviewees, technically were viewers of the videos, not of the installation itself. They thought that the information they had was enough for them to build an informed idea of the piece. Papp mentioned updating the work and modifying it for virtual reality goggles. This could be a way to bring the experience closer to the viewer, by adapting it to the archive for example. However the question that must be asked before such an endeavour is whether the work would be the same, or would it be considered a new one. Bónis would have appreciated more videos of the work, showing actual routes through the work, not just the edited compilation that was available.

The nature of the archive removes the viewers from the physical experience of the space and the installation. Varga in particular mentioned as the size of the piece is quite large, it most likely supplies an immersive experience, which is totally lost when seen only through a computer monitor. The interactive component and the bodily involvement also becomes completely absent through the documentation.

Chozas, the only one who had actually seen the piece, pointed out that the premise of reading while riding is not actually feasible. The other interviewees all mentioned wanting to be

able to read the work themselves. Participation in this piece is a vital component when engaging with it. Although the documentation provided enough information to mentally recreate the piece, there is a great difference between imagining and experiencing. Mental images, although they may come close to what the original may have felt like, are most likely based upon previous experiences and cognitive connections and deductions. In reality obstructions may arise that one would not have even thought of.

Marnix de Nijs - *Mirror_piece*

The work *Mirror_piece* is was created by Marnix de Nijs in the years 2010-2011. More than merely a large mirror mounted on a wall, it is a sleek, silver frameless solid. Hidden behind the mirror, enclosed by the framework, are the installation's defining features. Through the mirror, concealed technology captures and scans the facial features of the viewers standing in front of it. Biometric video analyzing software takes this data and runs it through a database de Nijs provided it. This database consists of more than 250 people, and contains well known individuals from actors to murderers.

After analyzing the scanned face, the program compares it to the database and selects a famous/infamous person that received a similar analysis. The image of the viewer and the public persona they were identified with is then shown on the mirror courtesy of the hidden LCD screen behind it along with a little description. Simultaneously a robotic voice makes this description audible. What the writing shares is who the viewer is identified with and why that person happens to be notorious.

Mirror_piece is actually a version of another work by de Nijs, the *Physiognomic Scrutinizer*, which was developed and made in 2008-2009. *Mirror_piece* can be considered an updated version, as its database is larger and it uses an upgraded version of the face detection and recognition software used in *Physiognomic Scrutinizer*. However, the installations themselves differ quite a bit from each other. *Mirror_piece* “emphasizes the motif of self-reflection and self-observation that the previous work just touches upon” (Hilj, I. 2010). *Physiognomic Scrutinizer* brings attention to security gates that are abundant in the protected public sphere, from shopping malls to airports. The installation simulates a security gate, it has a barrier leading to its entrance where lamps shine blazingly to illuminate the viewer's face to get an easily analyzable picture for the software. Identification with a notable personality is only accessible to the viewer after they pass through the gate. “The comparison process is displayed on the LCD monitor behind the gate and clearly viewable for the public looking at the work” (Hilj, I. 2010).

Compared to the *Physiognomic Scrutinizer*, *Mirror_piece* is inconspicuous. It is not surrounded by a great installation designed to evoke emotions from a particular situation. It poses as a simple mirror and is only triggered when a viewer stands directly in front of it, allowing their face to be captured. Uninterested passersby will not discover the characteristics of the work, unless it happens to be activated by someone else in their presence. The sound of the piece will fill the space and draw attention to the work.

The level of engagement needed to interact with this piece is quite low. Unlike *Legible City* or *My Boyfriend Came Back From The War* it does not need to be performed by the viewer to be experienced. All a viewer needs to do is allow the camera within the object to capture their face. A bounding box around their face indicates that the mirror is more than just a mirror. Once their face has been paired with someone in the database, within moments the result is shown on the mirror, accompanied by a voice elaborating information about the person they were identified with. The process is not an elongated one.

All in all the duration of the work is quite short. It is merely a matter of minutes from the beginning to the end. The outcome of the analysis changes, as it depends on the currently participating viewer's face. Marnix de Nijs comments on a rather complex issue, through this work, he questions severely the idea of advancing technology as inherently good. This is in line with Zielenski's probing attitude into the thought of technical progress as natural. *Mirror_piece* is a strong comment on the technology and uses of facial recognition. Furthermore it brings to the forefront surveillance issues in an rather ironic way.

The aesthetic experience given by this piece, to channel Fenner, is governed by several factors. The formal factors of this work are quite simple and minimalistic. At first glance it is a simple mirror, reflecting the person in front of it. People are extremely accustomed to their own face, however it depends heavily on a person's character whether it poses interest to them. This familiarity transfers to mirrors as an object, one expects to see their own image whenever they see a mirror. Thus recognition is arrested and transformed into perception (Dewey, 1980), when in addition to their own reflection, they face an image of themselves and a notorious person.

Another factor the work is heavily informed by is context, specifically social context. The database of the piece that contains circa 250 well-known people. Marx de Nijs constructed this database, he selected the people and images that belong to it. While doing so, he relied on his own social knowledge of infamous and notorious people, with the expectation that the people experiencing the work will be familiar with them. The descriptions accompanying the images can be thought of as a failsafe, should someone not be familiar with the social context of the database. As the text is read aloud, the pairings are made public, drawing limelight to the piece and the person in front of it.

In a way the work is perpetuating social memory as well (Rasmussen, 2010). The database can be considered an archive of historical persons, it is a selection of notable and questionable people. By drawing its viewer's attention to these people, it is also implanting them in their memory. For this work to be understood clearly, the period it was made in and the intentions behind it are important (Fenner, 2008). Without knowing the issues of covert surveillance, privacy laws and the limitations of machine intelligence when it was created, the message of *Mirror_piece* in the future might not stand up as firmly as it does now.

Technology is not invisible, but is often made to appear as if it were (Kirschenbaum, 2008). Marnix de Nijs has hidden the technology he is using behind the facade of the mirror. The mirror is an apt metaphor for the illusion of immateriality. Reflections cannot be reached or touched, but they are incredibly lifelike. The LCD screen behind the mirror is not visible, only the content on its display shines through the mirror. This combination of computer screen and mirror breeds a hybrid immateriality, it is a combination of analogue and digital.

Mirror_piece is simultaneously an art object and an process as well. The object occupies a place on the wall, while the processes takes up a period of time. One round of interaction with the artwork starts with a person standing in front of it and end with the last word that is read aloud of the description that accompanies the celebrity the viewer's image got paired with. When compared with *Physiognomic Scrutinizer* there is no physical design that governs the interaction with *Mirror_piece*. *Physiognomic Scrutinizer* has a whole ramp with lights that clearly and theatrically indicates how to approach the piece.

Mirror_piece seems like a simple mirror until the viewer has drawn close to it. The movement of the bounding box as the viewer's head moves is what first catches attention. The human eye notices movement quite well. Curiosity to see what will happen is what keeps people in front of the mirror. The analysis runs quickly in the background, when it is done, images are shown on the mirror. The viewer sees and hears only the result, not the process itself. Active exploration through interaction with the piece is not possible. The work requires cerebral engagement.

Associations related to mirrors are often linked to reflections or the lack of them. Here instead additional images are shown accompanying the reflection. What is lacking is the name of the celebrity, only their picture and description shown. Based on these two bits of information the viewer may recognize who they were paired with. Or memorize it, to find out later who they were identified with. The context of the work lies in several places, the object itself, the database and in the memory and recognition of the viewer. Should one of them fade, the message the work has to impart will also fade.

Question 1

Have you encountered this work before? If yes, was it in a live or in an archival situation?

None of the interviewees had encountered this work previously.

Question 2

What is your experience of this artwork? Would you consider it a full experience?

Bónis claimed that this work stoked his interest, because it is a bit controversial. The experience came through to him, he found the video and how the piece works exciting. Looking at one picture resulting in another grabbed his attention and that made him want to try it out himself. Papp considered it only a 90% experience, as she could not try it. The piece reminded her of Facebook apps that show users which celebrity they resemble. However, she never noticed the similarities in the results of friends who posted them. She found the confused and embarrassed reactions of the people in the video interesting to see, however all in all she thought that the piece is rather disturbing.

Óry said that similarly to Shaw's piece, she received a documentary film experience, as in this work the viewer should become a participant. She could not be one, she could only watch others become participants, therefore this could only be a secondary experience. Varga unfortunately had issues accessing the video. Otherwise she found the description of the piece very satisfactory, though she had a problem with the principle and did not quite understand the essence of the work.

Colstup did not consider it a full experience. The piece was not produced for the web and thus it is missing the central interactive component. Her curatorial brain immediately of course got a grand idea, of translating *Mirror_piece* into an online piece, as it seems easily adaptable. Chozas saw the video piece, found it interesting, and thought it would be interesting to see it live. He mentioned that in this piece not only what happens in front of the mirror is important, but what happens after, therefore he would consider the conversation after the witnessing the work the full experience.

Question 3

Was the information enough for you? What more would you need?

Bónis thought that the information was very detailed, even the database and the mechanics of the software was elaborated on. The piece is well described and one receives a general sense of how it works, however the most interesting content of the art piece, what it attempts to communicate about security issues did not come through via the internet strongly to him. Papp was satisfied with the information, the two minute video was well supplemented with the article. She found it the right ratio of information, everything needed was described and her curiosity was even aroused about a previous work. The fact that the descriptions of notorious people in the piece is read out loud was also a plus to her, because if she were to see it live, she probably would not read them.

Óry did not expect more information as the text was pretty much connected to the video and the creator also shared what was needed. Varga said that it was a very good description of what the concept was. She said the difference between this work and *Legible City* is the latter can create a strong bodily sensorial experience if one is there. This piece is not as interactive, as her face is not there, she cannot experience it, because she would only experience it as a participant, if her face is scanned. Colstrup and Chozas respectively both thought that the information was completely enough.

Question 4

What parts of the experience do you think are missing because you saw it through an archive?

Bónis missed his own personal experience. After reading the article, one understands what the goal was for the artist. However should the video be the lone source of input on the piece, and if its viewer does not research deeper into the work, the issues of being recognized correctly or incorrectly by security devices, the meaning is left out. Papp would have liked to try it out herself. Óry said she could not be part of the work, as she did not find out who she would be identified as. She could only look at other people's reactions to the work, but did not have the chance to have her own reaction. Colstrup also mentioned having the experience of being recognized and typified in this way, by being the subject. Varga noted that as she is not there, it is not her face being scanned. Therefore she is missing the aha moment or the shock value of the experience should she be paired with a monster she would rather not see. Chozas said that a good piece of art creates generates discussion, debate. However in this case the impact of this archetype shows only the reaction of the

people. The video stops just when they react, whereas he thinks the import point of this piece is not the surprise, but the aftermath following it.

Question 5

How different do you think it would be if you saw it live?

Bónis would have tried it. He was of the opinion that if he had seen it live, it would have been much more engaging. The extra experience of seeing the face of a criminal, a psychopath, or anyone else next to your own, entices one to start thinking, to understand the work. Through the video, as it shows other people's result, reactions and stories, *Mirror_piece* does not give such a direct experience. Papp would also have tried the work. Additionally she would have tried to peer into it from all sides as far as it were possible, to see how it was technically solved. Also if the artist were there, she would have asked questions such as how they created the piece, where did they find a programmer to work on it, were they the one to solder it together.

Óry thinks it would be more exciting live, without the artist's narration. She would have faced the artwork without knowing what it is, so the experience would have been different. She would have felt surprise, excitement and maybe self-reflection at whoever appeared in the mirror. Varga's answer to the previous question is still valid here. She added that the documentation describes and confronts viewers with observation technologies very well. Colstrup said because it is a quite simple idea in a way, she gets the concept, therefore it is very easy to image how it would feel like. However she is not being scanned as a subject by this technology, which she thinks is actually an important point of this work. The personal experience of being scanned and analyzed and being compared to someone who is clearly not her is missing. Chozas repeated that he misses the discussion that would rise after being recognized by the piece.

Analysis

Mirror_piece by Marnix de Nijs is the youngest work that was selected among the case studies. While its mechanics are highly digital in nature, it is a physical object set in an exhibition space. Not one of the interviewees had encountered the piece before, the documentation gave them their first experience of it.

Papp quantified her experience as a 90% one, the missing 10% accounted for the lack of interaction. Óry put more emphasis on being a participant, instead of watching others being a participant. Bónis found the work interesting, because it is controversial. Papp thought it disturbing.

Colstrup had the idea of transcribing the artwork onto computers with video cameras, as a way of bringing the experience directly into the archive.

All the participants thought that the information they were given was enough. Even though Varga could not access the linked video, she felt that the concept was well described. Compared with *Legible City*, the bodily dimension required of the viewers is not so strong though. Bónis commented on the detail of information that was shared about the database and software used in the piece. Both his and Papp's interest was woken in regards to another mentioned work within the documentation.

The documentation of this work did not allow its viewers to have a direct experience, the narration during the video explaining it gave it the character of a documentary. The interviewees missed their own personal experience of the work. Not being scanned, not being typified, not being identified, not being recognised and not having their own shock reactions lessened the impact of the work. Chozas was the only one who commented on the aftermath of the work. In contrast with the others, he mentioned the discussions arising from the piece as the part he missed the most.

As it was well described and documented, *Mirror_piece* seemed to provide adequate information for the interviewees to build their idea of the piece. Interestingly, it was not the bodily, sensual and spacial elements of the work that the participants in this research missed the most, but the intangible mental connections that encountering it personally would have caused. The shock factor and the contemplation of the results alone or with others are aspects that do not translate well into documentation.

Ben Rubin and Mark Hanson - *Listening Post*

Listening Post is an elaborate piece of media art. It is the result of a collaboration between Mark Hanson, a statistician and Ben Rubin an experimental sound artist. The work was first exhibited in 2001 at the Brooklyn Academy of Music. Viewers experience the installation in a dark room, where they receive both visual and aural stimuli. The art piece is rather large, it is comprised of two hundred and thirty-one text displays, arranged in a grid of twenty-one columns and eleven rows. This grid follows a slight curve and is suspended in the air, with ample room left in front and behind it, thus allowing viewers to access all sides of the piece. However, the displays of the work clearly face only in one direction, toward the centre of the room.

These displays are the first to strike the visitors' eyes. When they light up, emitting a cold blue-green tinted light, it is because texts, sentences and words run across them from right to left. Simultaneously disembodied machine voices read the words aloud, filling the space with sound.

Even though the voices are robotic, the vocals they create are musical and often changes its tone. Together with the atmospheric sounds that accompany these generated voices, an immersive sound environment is created. In unison with the display grid, sonification and visualization transforms the room into a meditative, mesmerizing environment.

The origins of the writing are quite pertinent to this piece. *“In the work, data collection software “listens” for active chat rooms and also “crawls” the Web for other sources of online conversations happening realtime”* (Hansen & Rubin, 2003). Public chatrooms and Internet Relay Chat (IRC) were channels the content for the piece was collected from. Using statistical analysis the texts are grouped based on their context and sampled into the piece. Through this real-time data responsive environment current topics and even a daily rhythm can be seen. Most importantly all the content that is used in the piece, come from publicly available sources. The discussions are made anonymous. Elaborate software was used for both data gathering and data processing in the piece.

“The striking visual components of Listening Post were not part of the original aurally-focused design” (Modes, 2013). The artists realized through experiments that by offering visuals of the text spoken, the audience paid more attention and understood the vocals better. The displays are approximately fifteen by five centimeters large, with four lines, each allowing a maximum of twenty characters to be shown at any given time. Much care was taken designing not just the visuals, but the sound environment of the piece as well. *“Installations include carpeted floors, acoustic treatment on the walls, and a baffled entrance to reduce sound from outside the installation”* (Modes, 2013). The sound moves around the room through the ten speakers that are hidden from sight within the space, conforming to the content of the installation, which is divided into scenes.

“Part of the genius of Listening Post is its theatricality, epitomized by its presentation structure, tellingly referred to by the artists as scenes” (Modes, 2013). There are seven scenes all in all, each of them differing from the other, in visuals, sounds and even in data-processing logic. One scene for example only collects and displays sentences that start with the words *I am* or *I like*. Another runs a list of the least used words in the last two hours from the various forums it has access to. The installation uses a variety of softwares simultaneously, and within them several different programs were written for specific parts of the work.

“Listening Post appears to have been continuously improved upon, in terms of systems, software, performance, and aesthetics, since its first appearance in 2001” (Modes, 2013). One reason for this to keep the piece running. By not allowing old software to cause disruption in the work, the mechanics of it continues functioning. However, aging technology alone is not the sole

danger *Listening Post* faces. The data it mines for content is vital to it as well. If the source of content disappears, the work will fall silent.

As the artists continued updating the software of the piece whenever it was to be exhibited, plans were also made for its eventual silence, due to lack of data. One solution would have been to change the work from a real-time data responsive environment to an archival environment. Over the years a lot of text had been amassed and analyzed. The piece could be reconfigured to run on that material instead. However instead of being an artwork presenting the present, it would be showing the past. “*But in keeping up with technology and shifts in internet communication patterns, the artists have recently made some evolutionary changes to Listening Post*” (Modes, 2013). A significant change they made to prevent its potential loss of voice was to adapt the piece to be able to gather input on Twitter. It is also interesting, that even though forums and IRC no longer happen to be prominent places to converse on the internet and their number of users have declined, this particular media of communication is still a way away from joining Bruce Sterling’s *Dead Media Project*.

“*Despite its advanced age for a high-tech new media work, more than ten years on Listening Post is still going strong*” (Modes, 2013). One of the reasons for its continued operation are the artists themselves, who work tirelessly to keep it functioning, in addition to updating the software and programs that run on the art piece. Luckily the technical hardware they chose to use for the installation is standing the test of time. Malfunctions are easily fixed and equipment can be replaced straightforwardly. In addition to efficient upkeep of the hardware, the visual characteristics of the display grids seem timeless. The artists’ choice to use simple small screens with limited functionality and colour shows foresight, instead of installing more a complicated cutting edge technology, which would probably age worse than a tried and trusted elementary system. However, they are not adverse to using more sophisticated hardware, when there is need.

Another reason *Listening Post* is still contemporary is its content. “*‘Listening Post’ owes some of its spellbinding quality to the poignant, and faintly discomfiting, fact of eavesdropping on real people’s communications*” (Baker, 2007). The internet today is even more embedded into the daily life of people than it was in 2001. Via smartphones people are immensely connected and can constantly chat with one another through various message applications. Writing and reading as communication has become very natural, therefore the sentences that appear on the display appeal directly to the reader, as if they were the intended recipient. However, the installation transmits in only one direction, viewers cannot react, or interact.

Listening Post is meticulously designed, from the programs running on it to the installation itself and the environment it is to be experienced in. The room viewers approach it in is calibrated to enhance the effect of the work. In darkened surroundings, listening to the voices and sounds of

the work, while reading the texts without distractions allows people to focus their mental faculties. By making sure physical factors (Fenner, 2008) do not take attention away from the work, the artists paved the way for viewers to fully experience the work.

Time is scarce and time spent in galleries is decided by the gallery goer (Groys, 2008). An installation like this, in contrast with with a photograph or a painting takes place in time. This requires the visitor to let go of their control of time and step into the time of the piece. First and foremost this is the duration of the work, from the first scene to the seventh. Time is present in the work in other ways as well. The content scraped from the internet which is analyzed then clustered happens in real-time. Whenever new material is found, the software updates its content so it weighs in heavier than older comments. Time also appears in the messages themselves that appear on the screens, as they may mention current news or the time of the day for example. As a result, while the work does have a structure, the content itself changes minutely every time it runs. One person could not possibly watch all the content versions of the work.

The mysterious little black boxes anonymously display comments, messages, ideas, aspirations, statements which could be written by anyone and everyone. Listening in on these messages, without knowing who said them, without having to react to them, viewers are free to ponder, think and associate. This collection of human content shows the masses that are out there, illustrating the many aspects of need for communication. Zielinski writes that artworks that take time away from the viewer also must give back time. *Listening Post* gives back a very different time than which was taken, it shares a glimpse into other people's time, showing how they spend it and what is important to them.

Through technology, Mark Hanson and Ben Rubin vocalize the internet and the people on it in an exceptional way. Using real-time data mining and intricate data analysis they structured the many messages online in a haunting way. The many parallels the work shows in people's thoughts and lives would not be visible when surfing the internet in a mundane manner. This art piece is technologically mediated (Idhe, 2009), and thus it shares new or formerly inaccessible knowledge with its viewers. Without this technology, neither accessing such a large volume of content, nor analyzing it would be possible.

The piece is a large collection of the data, and as such may also be thought of as an archive. As all the content is from forums, chat channels, even Twitter channels on the internet, it is an amalgamation of words, sentences and thoughts of many different people. It also commemorates how people talk publicly on the internet. Public channels are giving way to private ones. The work can be considered as social memory. It collects and saves information from a large number of people in society, selects and structures it, and there are parts it forgets (Rasmussen, 2010). The software only registers letters, emoticons and other elaborate symbols are erased before a message

is displayed. *Listening Post* has within it the potential to become an archive of the internet, however that depends on whether the internet will still have publicly available communication channels and on the decision of the artists.

The work is based on processes, even though they are not visible to the viewers. It is through the processes within it, that viewers may experience the piece at the end of the day (Ricardo, 2013). *Listening Post* can also be thought of as a work in progress too. The installation does not change from exhibition to exhibition, however each time it is prepared for a show, the artists evaluate and consider the mechanics, both hardware and software of the piece, and they often reconfigure it for optimal performance. *“This is a temptation that the artists have not failed to succumb to, as Listening Post appears to have been continuously improved upon, in terms of systems, software, performance, and aesthetics, since its first appearance in 2001”* (Modes, 2013). The work definitely encourages Ricardo’s view of how engagement and critique should be done with a new media artwork. First the viewer needs to observe and perceive it, which will lead to understanding and finally contemplation.

Question 1

Have you encountered this work before? If yes, was it in a live or in an archival situation?

None of the interviewees were familiar with this work.

Question 2

What is your experience of this artwork? Would you consider it a full experience?

Bónis felt he had an almost full experience, because the piece had an incredibly detailed description, that went into particulars about how it works. He missed the spacial experience, seeing the work in its entirety. One thing he really liked in the video, was that the recording simulated how a viewer would probably scan the piece with their eyes. Óry positioned this piece somewhere between Olia Lialina’s and Jeffrey Shaw’s work, because the video was not a documentary. She also noted that the film tried to imitate the experience of a live recipient, though it may have only partially succeeded in doing so. Colstrup felt that she got far with the piece from experiencing it this way, but she is missing the live stream, the immersion and the here and now of the situation.

Papp said that the video and description were both good, although she felt that the text was far too long. It would be good to see the work live, because of its size and the opportunity to experience its physical reality. Varga also mentions that is well documented and through the internet

the viewer receives an overall impression of the piece, however the installation's impressive physical size can only be seen live. Chozas received a nice and precise impression of the sound piece. The immersive quality is what differs from the archive version.

Question 3

Was the information enough for you? What more would you need?

Bónis thought that the information was enough. He would like to see the work live because it really engaged him. Additionally it was intriguing to him in a professional capacity as well, his brain started calculating the cost of how the system is kept working with real time data. The spacial experience however is missing.

Papp thought that there was nothing missing from the information, actually she found it too much. Usually she might read about an A5 page of text, but even that would be a lot. The information was also enough for Chozas. Colstrup and Óry both mentioned that while they did not read the text through, they found it enough. Colstrup said that the quick facts that she read were enough for her to explore it. Varga mentioned that through the details from the video and the description she could put together quite well what the work is about. The fact that it is actually a realtime data visualization is very important. In the live version the bodily immersion, the sound effects are probably different when one is there. From the video it is clear that visitors linger in the space.

Question 4

What parts of the experience do you think are missing because you saw it through an archive?

The spacial experience of the piece is what Bónis lacked the most. Even though the description goes into the smallest details, that can only be felt live. Chozas also noted the absence of the spacial feeling. Papp also mentioned the physicality of the work. Óry also missed the sense of space, she could not walk in it as only two dimensional images of the space were available to her. It was also unclear to her whether the voice reading the text in the video was present in the live piece in the same way. Colstrup's emphasis was on the sampling and collecting from the internet, the here and nowness of the work. Varga commented on the size of the piece, the installation is so big that a person can not perceive it all at once, it may overwhelm the visitor. In the live situation, the eye can skip and skim capturing and reading the texts in more and better detail than in the video. Some information regarding the inner workings of the piece however is only attainable via the description.

Question 5

How different do you think it would be if you saw it live?

Bónis thought it would have been different to spend a lot of time with the work itself, sitting there watching it for hours, contemplating the context. It would have been a closer experience. He was quite enthralled by the piece, even though it raises valid questions about surveillance and data mining. He finds it sad that the work will cease functioning after a while, due to the changing internet landscape. From the five pieces this one had the greatest effect on Bónis, for professional reasons as well. It was interesting for him to read how data was collected and channeled. The analytical solutions the artists employed in the early 2000s are still being used today for real time analysis in data science.

Papp would have memorized her experience in photographs, she thought she would have been inspired to create interesting pictures in the space. Óry felt that she would have been more touched by the mood and ambience of the work. The sound would have been different compared to her laptop's sound speakers. By stepping into the large dark space she would also have been a part of the art piece. Varga repeated the lack of spacial experience. Chozas mentioned the difference of spacial graphics in a space or on a screen. Colstrup like Bónis, mentioned the element of time. She would also spend more time with it. She would have not watched a hour film clip of the piece on Youtube, but she might have stayed for an hour in the live situation.

Analysis

Listening Post is another piece that non of the interviewees had engaged with before. Interestingly both Bónis and Óry mentioned that they felt the video attempted to simulate the live experience, with closeups and motion, not just relying on a single installation shot. The immense physical size of the work was mentioned by Varga and Papp. Through the documentation a fair impression of the piece is possible, however its immersive qualities are only available live. Colstrup comments that in the archival version, the liveness, the here and now of the work is missing.

Bónis, because of the incredibly detailed description felt that he received an almost full experience. As a data scientist the article was particularly interesting to him. Chozas also thought he had a precise impression. He along with Colstrup and Óry did not read much of the text though. However they still all felt that the information was enough. Varga also said that the detailed documentation allowed her to understand what the work is about. Papp was the only one, who commented and said that the information was too much.

The missing spaciality of the work is something that all of the participants in the research noted as a deficiency. Even the most detailed description could not recreate the feeling of space. The physical attributes of the piece is also something Papp would have liked to engage with. Óry was unclear whether the voice in the video is present in the exact same way in the live installation. To Colstrup there is a clear difference between the live and the archival version, which is a result of her missing the live stream that is essential to the piece.

Time in spent in the work would be an important part of the live experience. Varga mentioned that in the video, the viewers stay observing the piece for quite a while. Bónis and Colstrup both thought that in contrast with the online video recording, they would spend far more time immersed in the installation than in front of the monitor. Óry mentioned thinking that the sound quality would be higher, as would her awareness of the piece, by being in a location that is dedicated solely to the installation. Papp would have created her own photographs to capture the aesthetic experience.

The archival experience here gave much knowledge about the inner workings, the background of the work which is probably not apparent when the viewer encounters the installation live. In contrast, descriptions and videos are incapable of capturing all the spacial, bodily and temporal elements that create the experience of *Listening Post*.

Attila Csörgő - *How to Construct an Orange?*

Attila Csörgő is Hungarian artist, currently based in Warsaw, Poland. He is the first Hungarian recipient of the Nam Jun Paik award. His works explore connections between art, science and technology, often resulting in delicate, whimsical pieces. He experiments with objects of his own design, investigating and making visible the invisible. Using commonplace objects and materials he builds works that question what ordinary is and how it is constructed.

The the art piece *How to Construct and Orange?* was created in 1993-94. This delicate work consists of nine paper solids and of nine fans placed in space. The spheres are 15 cm in diameter each. The work's area is variable according to the artist, and based upon the documentation available on the internet, the number of fans and solids may also vary from installation to installation.

In contrast with the other artists and artworks, Attila Csörgő does not have as large an online presence. While there is visual and text documentation about him, extensive specifics about this particular artwork were not available. There are several videos and images of the work in various locations, however there is only one description of it.

This can be found on his portfolio website. He describes the challenge for creating the piece. “When I began working on this, I was interested in the a priori incompatibility between two seemingly related systems: plane geometry and solid geometry” (“How to Construct an Orange? - text”, n.d.). He then describes his idea, that a sphere would hover above an electric fan without movement. However his manually created spheres, with their inaccuracies and faults do not do so, floating in the air reveals their defects through their unique movement.

Beyond his interest for making the work, not much more is offered on the site. There are a few photographs showing closeups and installation shots of the work, alongside a sphere construction blueprints and sphere models. Movement is an essential part of this work, and a video recording of it would not be amiss on the webpage introducing it. Luckily there is a video of the work on Youtube, which sheds light on the motion and the sound the installation creates. It is however a still installation shot, without any closeups, which would allow the viewer to observe and discern more details. It is a fascinating work that incorporates both space and motion.

Question 1

Have you encountered this work before? If yes, was it in a live or in an archival situation?

Varga was the only participant who saw this work live. She was not sure if she saw this particular version of it. She encountered it at the Ludwig Museum in Budapest, there she only saw an arrangement of one floating item, not several.

Question 2

What is your experience of this artwork? Would you consider it a full experience?

Bónis did not consider it a full experience at all. Although knowing what inspired the creator to make the work is very interesting, it is still an incomplete experience. Papp also appreciated knowing the background of the piece. She liked seeing the idea and work put into *How to Construct an Orange?*. Őry did not really understand this piece, because she did not read the accompanying text, which was needed for its easy interpretation. She missed the spacial element of the work, she would have walked around the piece to see it from several perspectives.

As Varga had seen it live, she knew what the full experience is like and the archival version definitely did not give a full experience. Live it is very interesting and the delicate uneven movements of the floating spheres are far more obvious to the naked eye. Chozas found the work boring. Colstrup could not view the links she received, she only had the video to base her

experience on, which was not the full experience. Not being able to access the archive, however is a point in itself. The work loses in this situation, because even if she looked for cached sites, she would have no idea if the content there was what she was actually supposed to see.

Question 3

Was the information enough for you? What more would you need?

Bónis thought there was little information about the work itself, he missed the spacial experience such as the one he felt he received from the video of *Listening Post. How to Construct an Orange?* did not really have defining images or videos about it. Still, Bónis liked and appreciated knowing the story of the work and the artist's reasons for making it.

Papp felt that the Youtube video was enough for her. But she was sure she would look differently at the piece if she had seen it live. Óry did not read the accompanying text and without it the information she gained was sorely lacking. Colstrup said as the links she got did not all work, she did not know what she was missing, but she skimmed the brief text under the Youtube video. She did not really get this piece, but that may have been because she did not spend enough time with it.

Varga, as she already knew the work and its principle thought that the documentation could have been more elaborate. Compared to the other works, it was a minimal description. Her opinion is that in the west writing features prominently alongside works, while in Hungary the idea of the art piece speaking for itself still reigns. She thinks that detailed descriptions are important for publication, for understanding a work. A text should be reader friendly and not too long. As long as a person is immersed in reading, they will try to understand a piece and why it is interesting. She thought that this was a taciturn text, a very short reckoning of why the work was created, without contextualization, without placing it in a wider social context, without saying why it is interesting today as an artwork, as an art description.

Question 4

What parts of the experience do you think are missing because you saw it through an archive?

Bónis felt that the spacial experience was what he missed the most. Walking around, looking at the piece from all sides, observing the spheres, being in the space and meditating on the work was not possible this way. Óry also mentioned the absence of spaciality, the lack of opportunity to stroll around the piece. Chozas would have liked to hear the sound of the work and confront the

temptation of obstructing the piece by positioning his hand between a sphere and its corresponding fan.

Papp also mentioned just being there. According to her, when she had only seen the photographs, the movement of the spheres was not clear to her. She thought at first that the spheres were hung on threads that were edited out of the photographs. Just like Chozas, she mentioned wanting to interact with the spheres. Additionally via the video some details are lost, because they cannot be observed properly. Live she may have understood why the various spheres float at different heights for example.

Colstrup brought up the lack of tension that the here and now gives to the piece. She also mentioned the opportunity of disrupting the delicate and unstable situation the piece creates. Feeling the air, finding out if a draft or walking quickly past the installation interferes with the work. This piece to her was about movement, balance and making something impossible possible by having these spheres float. Varga, the only one who encountered it live, was of the opinion that it needs to be seen live. The version at the Ludwig museum could be observed from all sides, the full surface of the sphere was perceivable. Viewed from afar it is not obvious that the spheres were irregularly shaped, only the description clarifies that.

Question 5

How different do you think it would be if you saw it live?

Bónis wasn't sure if the work would have engaged him in reality the same way. Here the description made the piece interesting, which he probably would have skipped reading live, however live the spacial experience would probably have enchanted him. Papp mentioned walking around, observing the piece from all angles as a difference. She would have also made some kind of recording, photographs, but most likely videos and perhaps created another piece of art based on art.

Chozas thought it would be different, but not too much. Óry repeated that she would have looked at it from different sides to understand the nuances that did not come through the documentation. She felt the images constrained her view. Colstrup found that looking at the piece through the screen seemed quite boring. Live she would be a part of the same airstream and be able to to effect the work with her presence. These spheres floating in the air, is fantastical in a way to her and it does not have that air when seen through a monitor.

Varga states that this work is exquisite and gives a sensual experience. According to her, through the documentation the object comes across as a high tech piece, while it is a handmade low tech one. Live this comes through clearly, but it is not written in the description, and the images are

beautifully made, showing it to be immaculate. She also mentioned walking around the work in real life as something to do, and added that live it is not just a visual, but has a tingle to it.

Analysis

How to Construct an Orange? had been seen live by only one of the interviewees, Tünde Mariann Varga. She saw a solitary solid with one floating sphere at a Csörgő retrospective in Budapest. When comparing her live experience to the archival experience, she definitely did not consider it a full one. The others, despite not having a live experience to compare their archival one with felt similarly.

The documentation of the piece is key in sharing its experience. Colstrup could not access some of the links for example, while Óry did not read text about it by choice. As a result Óry did not really understand the piece. Papp in contrast thought the video was enough for her. Bónis felt that there was there was little information about the piece itself, although he appreciated learning about the artist's intent. Additionally he did not find the images and video detailed enough to share information. Varga also commented on the importance of description for the documentation of artworks. She compared this work with the previous ones and said that it lacked the contextualization that was present in other descriptions.

The spaciality of the piece was mentioned by several interviewees as a missing part of the experience. Both Bónis and Óry would have liked the opportunity to walk around the piece and view it from different perspectives. Chozas would have liked to hear the sound of the work as well. Colstrup in addition to Chozas mentioned the opportunity of manipulating the spheres, by obstructing the airflow in one way or another. Seeing the work like would have made more details available to Papp, without the video, she would not have thought that the spheres are floating and not just hanging in the air on a thread invisible to the camera. Varga and Papp both said that the irregularities of the sphere can only be seen up close.

Bónis brought up the issue of differing interests when seeing a piece live or in an archive. In the archival version, the text caught his attention, and he theorized that live he would probably overlook the text in favour of the work. Chozas did not think that the work would differ significantly live from the documentation, however his opinion of the piece was that it is boring. Colstrup thought viewing it through the screen was what made the work dull, live she would have been mesmerized by it. Papp mentioned recording the piece for herself in a live situation. Varga commented on the documentation, saying that it obscured details that are quite clear live, such at the low tech character of the work.

Interview Part 2 - Analysis

Through the case studies and the interviews the various aspects of the archival experience have become clearer than before. The interviews were divided into two sessions, the first part investigated the general thoughts of the interviewees regarding the archival experience, while the second part through case studies aimed to gain specific answers in response to the five selected artworks.

The five art pieces differ from each other in character, meaning, and supplied experience. When looking at the archival experience they offer, there is another important aspect that determines their reception, which is non other than their own documentation. The documentation the interviewees received was all sourced from the internet. Instead of compiling all the information that was available like for the descriptions of the specific work, instead every art piece had one to maximum three hyperlinks that lead to a combination of documentation in images, videos and text. These links were chosen from all available links, because they condensed the most knowledge on their respective artworks, thus could impart as much information as possible to the participants in the research. The amount of information available varied from work to work, which was why the amount of material within the links differed. Some works were better documented than others.

The second part of the interview happened only after the participants in the research had accessed and processed these links. Out of the six interviewees, three took the time to carefully read and look all the documentation. The other three gave various reasons for not engaging as deeply with all the sources. Chozas for example found reading about the works boring and as an artist had the attitude that a good artwork should not need a lot of information. Óry did not attribute much importance to the given articles, because as a literary scholar she was groomed in the tradition that the viewer creates the meaning of a given art piece, the intent of the artist is secondary compared to that. In hindsight she commented that she would have needed the creators' own interpretation as some works did not reveal themselves to her. Colstrup noted that because of her tight schedule she barely had time to lightly skim the texts. It is interesting that primarily more attention was given to videos and photographs than to texts. Visual documentation was less likely to be passed over.

The interviews with the participants were conducted via Skype on the internet, due to the fact that the interviewer and the interviewees live in different countries, therefore personal meetings were hard to schedule. The internet is an incredibly useful tool, except when it fails. Manoff comments that material can be removed from the internet without a trace, scarcity on the internet happens to be quite common. One's physical location or even just the characteristics of the

computer that a person is using can influence what they have access too. Tine Colstrup in Denmark for example could not access Attila Csörgő's official website. Tünde Mariann Varga in Hungary however could not access Marnix de Nijs's video about *Mirror_piece*, she only had the text to base her observations on. The other interviewees however did not have trouble opening any of the links. The material in these cases had not disappeared from the internet, but for unknown reasons was unavailable.

The task of viewing the links to understand and experience the works was quite clear. Some of the interviewees were more rigorous than others in doing so. Colstrup was the only one who in connection to the availability issues she encountered mentioned her decision to not search the web for other sources about the given artworks. In particular she mentioned not viewing cached versions of the blocked sites, because she would then need to deal with the question of potentially wrong or outdated information. Without seeing the most current version, she would not have known whether the cached site's information is identical to it. She could not be sure if her knowledge is complete or correct.

The first question asking if an interviewee had encountered an artwork previously had the simple aim of discovering if they already had an experience of it and whether the experience was a live or an archival one. Most of the works were totally unfamiliar to their viewers, therefore they could look at the documentation without bias based on their former knowledge of the works. In a few cases the interviewees had only fleetingly known of a work. There were two artworks where a participant had experienced the work live, these were non other than *Legible City* and *How to Construct an Orange?*. The insights from these encounters brought forth concrete observations on the differences between the live and the archival experiences.

The second question probed the individual experiences the interviewees had connected to the artworks. In the first section of interviews, a recurring view of the participants was that the experience heavily depends on the art piece itself. *My Boyfriend Came Back From The War* for example was a piece where they felt that the experience was a full experience. This was due to the nature of the work, as a website it was meant to be accessed from personal computers, thus it is live in all situations. Here the internet is not purely its archive, but also its medium.

For the other works which were not created for the internet as a medium, the material on the various links served as documentation, which took the form of texts, photographs and videos. All of the works had a writing of some sort, in the shape of a simple description or an interview or an in-depth article detailing them. These were needed in addition to the visuals depicting the various works, because some of the particulars about an art piece were not discernible from only the images and the videos. The texts added much needed context, Papp for example mentioned that her whole

take on *My Boyfriend Came Back From The War* changed after she read the interview, because her initial understanding of the work was quite different.

The interviewees did not consider their experiences with the other works a full one, the archive, through the documentation inserted a distance from the work. The quality and quantity of the documentation highly influenced the experience. The better images, the more information a viewer has on a work helps to construct a more informed idea, opinion and archival experience of a work. Colstrup mentioned that documentation in itself can be considered a version of a work, if it is created in such a way, that it adheres to the medium it will be presented in. However it does not necessarily give an experience equal to the live version of a piece.

Most of the interviewees felt that the information they received was enough for them. Papp in particular however noted that the text accompanying *Listening Post* was too long for her. Bónis in contrast appreciated the extreme detail within very the same text. Varga was for example disappointed with the short description that was available for *How to Construct an Orange?* and noted the difference between art writing styles and critiques in the West and Hungary. The information for an individual viewer's satisfaction varies. Some people require longer more elaborate texts, while others prefer shorter ones. A person's intention and interest also determines just how much material is enough for them.

What did the viewers of the selected artworks miss from the archival experience? The first piece, which was a website could be considered completely successful. The other four case studies in contrast pointed out the inadequacies of archival experiences. Viewing art pieces on the internet is primarily a visual and mental exercise. The various characteristics of a work and its context are translated into text, photographs and videos. These translations can be successful, however that depends on their quality and on the nature of the work they are describing.

Large scale works such as *Legible City* and *Listening Post* can be reconstructed and imagined based on documentation, however the sensorial perceptions they offer can only be felt live. The interviewees often mentioned the lack of spacial, bodily awareness of a work when viewed through the computer screen. Interactive elements were also highly missed, as the material they viewed only provided unchangeable versions to see, another person's static experience does not constitute participation. In the case of *Listening Post* the live stream itself is lost. *Mirror_piece* evoked the need for the personal experience of surprise or shock. Chozas in particular noted that he missed not the shock factor of the work, but the opportunity to engage in discussion about the received results with other viewers of the piece.

The last question in the second part of the interview, *How different do you think it would be if you saw it live?* resulted in similar answers to the fourth question *What parts of the experience do you think are missing because you saw it through an archive?* There were quite a few overlapping

answers. In hindsight, the two questions do promote similar results. However in the two particular cases where the interviewees had seen the works live in their original forms the answers shed significant light onto the differences between the live and archival experiences. Chozas brought attention to the fact that the text in *Legible City* cannot actually be read. All the other interviewees, who had only the documentation to base their experience on mentioned that they would have wished to read the texts themselves while cycling. Lacking knowledge of the live experience all assumed that they would be able to read the writings within the artwork. Varga's observations about the quality of documentation of the work *How to Construct an Orange?* brought up issues of how documentation may hide specific properties of an art piece.

Through the interviews valuable insights were obtained on specific artworks' archival experiences. It was only after the interviews that the questions themselves could be scrutinized. Question four and five for example resulted in similar answers although they approach the topic from different angles. Another aspect to take into account are the interviewees themselves. Chozas' answers for example did sometime veer away from the questions asked, which could have lead to more and different queries, that could not have been replicated with the other interviewees. Leaving room for different replies resulted in interesting answers. The challenges of interviewing and the depth of the answers revealed that much more could be asked given enough time.

Discussion

Through the case studies and the interviews, the essential nature of the archival art experience unfolded. The first five questions in the first section of the interviews aimed to uncover generalities about the archival art experience, brought a range of answers from the participants of the study. All of the interviewees were of the distinct opinion that archival art experiences differ from live ones. Their views on what the archival experience would be like, however, was not so clear cut. While such an experience would depend on the specificities of the experienced art piece, some participants thought that an archival experience was less true or real than a live one. Others described them as boring, and yet others mentioned out that archival experiences are intellectual and not necessarily sensual experiences.

Drawing on these answers it would seem that a live experience compared with an archival one is engaging and exciting, stimulates the mind and senses. Through the case studies it was hoped that the nuances of an archival experience would unfold. One of the results that did emerge, was the conviction that the archival experience of an art piece is heavily influenced by the work itself. If a work was not created specifically for the archive, for the the internet in this case, the experience the

archive gave would surely be different from the live one. Only one of the selected artworks was considered to be a full experience, Olia Lialina's *My Boyfriend Came Back From the War*. This was a direct result of its medium, as a webpage, viewed on the internet, there was no distance between the audience and the piece, no layers and no filters effected and imposed on its experience. The other artworks were not thought to give a full experience.

The degrees of difference between the archival and full experience were not consistently observed and measured during this research. Some of the interviewees commented and subjectively quantified their experience, while others did not. Due to the limited amount of time the volunteers had in the study, further interviews could not be scheduled explore the subtle distinctions of quality differences between one archival experience and another. More time would have been needed to investigate and define the differences between archival media art experiences for their classification, and to form well founded questions to pose the interviewees, that would result in answers elaborating in detail on the quality of their experiences.

It was quite apparent through the responses of the participants that the quality of the archival media art experience was intimately linked to the content they received. In the first interview, each person was asked what an informed archival experience would be for them. While this depends on the art piece, the common thread that emerged was the need for detailed factual and technical information. The dimensions and material of a work is necessary, visual documentation showing its whole and particulars, perhaps even showing it in space. Text descriptions were required to elaborate on the context and history of a piece. The quality and quantity of the documentation varied from piece to piece, those that had concise texts and good quality pictures or videos allowed their viewer to experience them more easily than those which did not.

The attitudes of the interviewees towards the documentation also influenced their experience. Some of them did not read descriptions, choosing to rely only on images, photographs and videos. However not all of the works were comprehensible without the accompanying article, thus the resulting archival experience often could not be fully formed. The individual participant's proclivity for investigation, reading and personal experiences also informed their experience. Their personal taste, professional knowledge and point of view is an additional factor that could not be calculated for regarding their archival art experience. Though the interviewees covered a wide range of professions and personal experiences, there were only six of them in all. For more inclusive and thorough results, additional participants would be required. With more people of different ages, interests and occupations a broader and more representative scope of responses may have been reached.

For an even deeper investigation into the differences between a live and an archival media art experience, the case studies could have been conducted in a different way. In this research, it

was fortuitous that some of the participants had experienced a few of the selected artworks in a live situation. This happy accident shed light on some of the filters archival experiences have compared to live ones. If the study would be repeated the methodology of the case studies could be recalibrated.

More interviewees would be needed, and they would be divided into three equal groups. The first group would receive a similar link list of the selected case studies to delve into. This group would however first need to answer an inquiry as to whether or not they have previous experience of any of the artworks. No live knowledge whatsoever of any of the pieces would be compulsory. The second group would only experience the media artworks in a live situation. The third group would have the opportunity to engage with the case studies both in an archival and live situation. Comparing live and archival experiences is only actually possible when the viewer has had the opportunity to experience both. While imagination and reality can and do overlap, the mental exercise of construction an experience cannot recreate all aspects of a live situation. The responses that would follow from these interviews would hopefully deepen the degree of understanding of the nature of archival experiences.

Conclusion

The aim of this research was to investigate the archival experience of media artworks. The literature review in the beginning of the thesis introduced the following basic terms: experience, engagement, technology, media art, archive and the internet and gave definitions for them. Media art is art that operates with and through technological media (Zielinski, 2006). Media art also stands aside of traditional arts, such as photography, sculpture, drawing and painting (Ricardo, 2013). Ricardo also adds that media artworks do not require merely a spectorial aesthetic, but also an engagement aesthetic to be experienced.

Defining the meaning of experience was also important to the study. Compared to media art, it is far a broader term, thus is potentially harder to narrow down. John Dewey's description about experiences was the start line for doing so. First and foremost, experiences have a unity that ties its all of its various sections into one (Dewey, 1980). *An experience*, in Dewey's opinion is when what is experienced reaches its fulfilling ending. Also very important, is the fact that *an experience* cannot be totally disconnected from the person experiencing it.

Still for the purpose of this thesis *an experience* needed further streamlining. Arnold Berleant adds aesthetics into Dewey's equation, this directs experiences towards art in particular, as the goal aesthetics according to him is to explain people's experiences with art. Contemporary art

challenges traditional aesthetics, especially as the artworks now require active engagement, not just a subjective mindset (Berleant,1991). Fenner uses the word pairing aesthetic experience, which groups together experiences connected to artworks, giving Dewey's *an experience* more precise interpretation.

Engagement with artworks is vital for viewers to receive and aesthetic experience. Engagement is a process. Ricardo draws attention to the fact that media artworks are often processes themselves or are accessible through processes only. Artworks have moved from product to process (Ricardo, 2013). Disruption of engagement, disruption of mental connections prevents the experience from being lived and felt.

Archives can take various forms and may assemble many different materials. Ricardo writes that in this technologically advanced world, to manage memory, one must manage also manage media. Archives usually need to be organized, the content within it needs to be accessible to its viewers. What cannot be found, can be considered as non-existent. Curated archives are particular about their content and in a sense they may censor social memory. Selection in archives, intentional or unintentional shows can consign items, histories into forgetting.

The internet has become widespread and is often the first place people go to search for information on any given subject (Hine, 2015). In this research, the internet itself was taken as an archive. As such it is a could be considered a form of memory. The internet however is a vast collection of miscellaneous materials by different people. Standardization is not possible as in institutional collections, content is instead incredibly varied in form, length and quality. Greenberg views this as an advantage, the existence of documentation other than official institutional material may reveal additional layers of a given piece, allowing multiple perceptions of an artwork to exist simultaneously. Using the internet to investigate artworks and exhibitions is a viable way of research. Is it also suitable for experiencing art as well?

Through the case studies, it has become clear that the archival media art experience depends on the highly on the artwork itself. The method in which knowledge is shared shapes the information (Manoff, 2004). Furthering this thought it seems to be evident, that the form of the documentation has influence on the archival experience of a piece. Through the case studies and the reviewed literature, it became clear that there are common factors that influence experience.

Fenner's list of factors that effect aesthetic experience mentioned is quite comprehensive. There are the primary formal factors, which are the physical properties of the art object. There are also secondary factors, which may be informational or subjective. Informational factors could be considered the curriculum vitae of an artwork, from its origins to its history. Subjective factors can be psychological or physical ones. Former are unique to each viewer and are independent of the artwork itself. Latter can be internal or external, the external environment may be designed to some

extent by artists to influence engagement with their work. Associations are another factor that is tied closely into the viewer's own memory. Context factors of which there are three, social, moral and taste have a looser connection.

The interviewees encountered the formal factors of an artwork through texts, images and video, however it must be taken into account, that documentation also has its own formal and informational factors, that can and do exert their influence on its audience. Not only the information gleaned from the documentation defines the archival media art experience for its viewer, but the quality of the information itself as well. The length and readability of a description, the size and content of an image, the length, ambience, material of a video for example can all effect their audience.

The way a work is portrayed through the internet, through its documentation can bring the archival experience closer to the live experience. The *Listening Post* video was also mentioned as a good example of an evocative film, instead of using narration like in documentaries, it used visuals, the language of film to create an impression of the installation, Bónis specifically felt that the film simulated how his eyes would scan the piece if he were there personally. *My Boyfriend Came Back From The War*, as an internet art piece, was created specifically this medium, therefore its impression was quite strong upon the interviewees, independent of whether they liked it or not.

What are the major differences between a live and an archival experience? First of all, the live experience is immediate, there are layers of selection and of processes inserted between the art object and the art viewer. In an archival experience, the only some aspects of the work can come through clearly through the documentation. Informational and context factors can be described quite well via text for example. Images and videos can show the form of the work, however the size may not scale, depending on the size of the original piece. The spaciality of a piece, the spacial awareness of the viewer in a space as a sensorial perception does not translate well into text, nor into two dimensional imagery, still or moving.

Interactive media art pieces are difficult to document for another reason. Their interactivity, which can be the piece's most prominent feature is lost when moved into an archive. Viewers of the work through an archive can only receive the version that was preserved. This was a recurring observation of the interviewees, who would have liked to try out the interactive elements of a given work. Another aspect that is also impossible to transcribe into an archive is real time streaming for example. *Listening Post* becomes crystallized in the video for example, Colstrup in particular mentioned the loss of the here and now which is an essential part of this installation. Interactivity, and real time streaming in this case can be considered as a context factor.

The interviewees' association tendencies was quite apparent through the case studies. Varga immediately recalled hypertext novels when faced with Lialina's work, Papp remembered her

youthful HTML experiments. Colstrup had a curatorial idea of recreating *Mirror_piece* as an online work to preserve the interactivity of the work. Associations however was not merely a result of the case studies, but of the interview questions themselves. When asked what would he consider an informed and adequate archival experience, Chozas rephrased the question and what kind of archive would be a good art piece. This lead him to recall the *Tate Thames Dig* by Mark Dion. The personal experiences of the interviewees emerged in different ways, Bónis for example attributed his interest in the work *Listening Post* to his profession, data engineering.

All six interviewees of this study, Viktoria Papp, Katinka Óry, Vargy Tünde Mariann, Balázs Bónis, Javier Chozas and Tine Colstrup had different professions. It is also important to mention that they were volunteers, who freely gave their time and expertise to participate in this research. When depending on another person's favour, it is wise to limit the demands one may have on their time. The interviewees were originally planned to take six sessions, instead of two. Each artwork would have been tackled separately, not at once, to limit them influencing one another's archival experience. Dividing the interviews into so many parts was not viable for Costrup for example, her schedule only allowed one session. She was the only person who answered all questions in one go. Interestingly the fact that she had seen the selected works before having answered the general questions, did not seem to have influenced her answers, which was the reason for making the other interviews in two parts.

The interview questions were intended to be straight forward, however there was one question that at times needed to be elaborated on for the interviewee to understand it. This question was the following: *What would you consider an informed/adequate archival art experience?* When such a occasion came to pass, it was explained and rephrased as, *What would you need to be able to say you understood and know the artwork?* Another issue that cropped up, was that the next two questions often resulted in similar answers. *What parts of the experience do you think are missing* and *How different do you think it would be if you saw it live?* If the study were to be repeated, it would be advisable to test each question in one or several mock interviews before going live, to have an idea of what sort of answers to expect, and then modify the list of questions accordingly.

In an official study, researching the archival experience of media artworks reconsidering the questions and creating several iterations would be possible and even advisable. The interviews could used question lists as guidelines and instead depend on the interviewer's individual insight to pursue deeper, more elaborate answers from a participant. An official study could receive funds, allowing researchers to pay the participants, thus allowing them to ask for more of the interviewees' time, attention and knowledge. In a larger setup, having more participants could be productive, resulting in more detailed answers.

To reach a more comprehensive analysis with better, more conclusive results, a larger quantity of case studies could also be considered. The current selection of artworks were created between 1988 and 2010, twenty-two years in all. They are also quite diverse in their nature, content and in technologies used as too. Strategically it might also have been a sound decision to select a contemporary media artwork from 2016 or 2017, as a contrast to the older pieces. The case studies in the thesis were chosen carefully, to make sure there would be substantial differences between them. For the purpose of the research a few more additional works, using different technologies with other subject matters, could have enhanced the analysis, perhaps resulting in a more comprehensive answer to the research question, with further refined and elaborate specifics supplementing general deductions. To have genre specific results, different selections could be made, grouping similar works together, giving artwork particular results. This could also provide the additional benefit of being able to observe the impact of the quality of documentation on the interviewees' archival experience.

The links to the case studies were chosen because they imparted the most adequate information about a given artwork. In a different study, watching the interviewees engage with the material and perhaps even using the internet to further their knowledge of a piece could be interesting. Hogan characterized the archive as a dumpster, which when thinking of digital archives can be quite valid they can incorporate immense amounts of materials. The internet contained vast amount of unsorted data, through which a person must wade when searching for information on a specific art piece. Sometimes there is a lot a material, at other times, there is hardly anything to be found. This disparity made the selection of links difficult, and varying in quality. Not to mention when a given link did not function, thus severely limiting the information a participant had access to.

Regarding the descriptions of the art pieces in each case study, *My Boyfriend Came Back From The War*, was the most accessible to actually experience. Writing about experience, relying on the words of the creators, other writers moved to critique the pieces, on video documentation to construct an comprehensive image of the works is a complicated and abstract task. Just as complicated as building an internal image and imagined experience of an artwork, which was the task of the interviewees.

The focus of this study is useful for several reasons. First all, it aimed to result in a better understanding of what experiences are in connection to media artworks and archives. It attempted to synthesize the writings of prominent scholars on experience, aesthetic experience, engagement, aesthetic engagement, technology, media art, archives and the internet which are vital to approaching what a media art archival experience is. Through the texts it compiles a well rounded

discussion of these themes, and also goes into the different factors that influence and impact experiences. It frames the context media art and archives exists in.

Secondly it shines light on the fact that experiencing of media art is possible from a distance, though this has its limitations. Conserving individual pieces' materiality and the technological means that make them operate is vital, but without access to the piece, live or archival a work can technically cease to exist. Ensuring access is a particularly difficult task, as is the creation of good documentation that can imparts a solid impression of a media art piece. Not all aspects of a work can be translated into an archive. The issues examined by this thesis could inform media art professionals like artists, conservators, collectors and curators about various aspects of documentation and experience when preparing an art piece for an archive.

While the Media Art Cultures field as of now may be still be considered young and unestablished by some, it will keep expanding in influence, continuing to bring questions combining art and technology to the table, opening the way for diverse answers in manifold ways. Hopefully this thesis *The Archival Experience of Media Art* succeeded in add an interesting angle to the discourse surrounding the conservation and dissemination of Media Art. Echoing the sentiments of Tünde Mariann Varga and Tine Colstrup, an archival art experience is still better than having no experience at all.

References

Bibliography

Monographs

- Berger, J. (1980). *Ways of seeing*. London: British Broadcasting Corporation and Penguin Books.
- Berleant, A. (1991). *Art And Engagement*. Philadelphia: Temple University Press.
- Bourriaud, N. (2005). *Postproduction*. New York: Lukas et Sternberg.
- Chun, W., & Keenan, T. (2006). *New Media, Old Media*. New York, NY: Routledge.
- Dewey, J. (1980). *Art as Experience*. New York: First Perigee Printing
- Dufrenne, M. (1973). *Phenomenology of aesthetic experience*. Evanston: Northwestern University Press.
- Fenner, D. (2008). *Art in context*. Athens: Swallow Press/Ohio University Press.
- Groys, B. (2008). *Art power*. Cambridge, MA: MIT Press.
- Hine, C. (2015). *Ethnography for the internet: Embedded, Embodied and Everyday*. London: Bloomsbury Publishing PLC.
- Ihde, D. (2009). *Postphenomenology and technoscience*. Albany: SUNY Press.
- Kirschenbaum, M. (2012). *Mechanisms: New Media and the Forensic Imagination*. Cambridge, Mass.: MIT Press.
- Morville, P., & Callender, J. (2010). *Search Patterns*. Sebastopol: O'Reilly.
- Parikka, J. (2015). *A Geology of Media*. Minnesota: University of Minnesota
- Ricardo, F. (2013). *The Engagement Aesthetic: Experiencing New Media Art Through Critique (International Texts in Critical Media Aesthetics)*. Bloomsbury Publishing.
- Ryan, J. (2010). *A History of the Internet and the Digital Future*. London: Reaktion Books.
- Scholte, T., & Wharton, G. (2011). *Inside Installations - Theory and Practice in the Care of Complex artworks*. Amsterdam: Amsterdam University Press.
- Yin, R. (2009). *Case Study Research: Design and Methods*. London: Sage.
- Zielinski, S. (2006). *Deep Time of the Media*. Cambridge, Mass.: MIT.

Professional Articles

- Bishop, C. (2012). Digital Divide: Contemporary Art and New Media. *Artforum*, 51(1), 434-442.

- Cox, C. (2011). Beyond Representation and Signification: Toward a Sonic Materialism. *Journal Of Visual Culture*, 10(2), 145-161. <http://dx.doi.org/10.1177/1470412911402880>
- Greenberg, R. (2009). 'Remembering Exhibitions': From Point to Line to Web. *Tate Papers*, no 12, autumn. Retrieved from <http://www.tate.org.uk/research/publications/tate-papers/12/remembering-exhibitions-from-point-to-line-to-web>
- Hogan, M. (2015). The Archive as Dumpster. *Pivot*, 4(1), 7-38. Retrieved from <http://pivot.journals.yorku.ca/index.php/pivot/article/view/39565>
- Manoff, M. (2004). Theories of the Archive from Across the Disciplines. *Portal: Libraries And The Academy*, 4(1), 9-25. <http://dx.doi.org/10.1353/pla.2004.0015>
- Merritt, R. (2001). From Memory Arts to the New Code Paradigm: The Artist as Engineer of Virtual Information Space and Virtual Experience. *Leonardo*, 34(5), 403-408. <http://dx.doi.org/10.1162/002409401753521511>
- Purves, D. Ed. (2004). Chapter 10 Vision: The Eye. In *Neuroscience* (3rd ed., pp. 229-58). Sunderland: Sinauer Associates.
- Rasmussen, T. (2010). Devices of Memory and Forgetting: A Media- Centred Perspective on the "Present Past". In E. Røssaak, *The Archive in Motion* (pp. 109-123). Oslo: Novus Press.
- Riding, A. (1995). Video Artists Meet Today's Software. *The New York Times*, p. 13.

Web Sources

- About LIMA. Li-ma.nl*. Retrieved 2 October 2017, from <https://www.li-ma.nl/site/about>
- Allan Kaprow—Art as Life » Fluids. Web.archive.org*. Retrieved 2 December 2017, from <https://web.archive.org/web/20090204093609/http://www.moca.org:80/kaprow/index.php/category/fluids/>
- Attila Csörgő. Atelier-calder.com*. Retrieved 4 November 2017, from https://www.atelier-calder.com/attilacsorgo_GB.html
- Attila Csörgő | Galerija Gregor Podnar. Gregorpodnar.com*. Retrieved 3 November 2017, from <http://gregorpodnar.com/attila-csorgo/>
- Attila Csörgő | Nam June Paik Award. Nam June Paik Award*. Retrieved 2 November 2017, from <http://namjunepaikaward.org/en/kuenstler/attila-csoergoe>
- Attila Csörgő - Archimedean Point | | Ludwig Múzeum. (2009). LUDWIG MÚZEUM*. Retrieved 2 November 2017, from <http://www.ludwigmuseum.hu/site.php?inc=kiallitas&kiallitasId=478&menuId=44>

Baker, K. (2007, August 4). *'Listening Post' brings the Internet into view – SFGate*. Retrieved 21 June 2017, from <http://www.sfgate.com/entertainment/article/Listening-Post-brings-the-Internet-into-view-2549303.php>

Bosma, J. (2016). *Olia Lialina - 20 Years of My Boyfriend Came Back From The War*. *Josephinebosma.com*. Retrieved 16 May 2017, from <http://www.josephinebosma.com/web/node/112>

Code of Ethics. (2017). ICOM. Retrieved 26 October 2017, from <http://icom.museum/the-vision/code-of-ethics/2-museums-that-maintain-collections-hold-them-in-trust-for-the-benefit-of-society-and-its-developme/#sommairecontent>

Computer-generated imagery. *En.wikipedia.org*. Retrieved 26 June 2017, from https://en.wikipedia.org/wiki/Computer-generated_imagery

Dekker, A. (2016). *Olia Lialina: My Boyfriend Came Back From The War*. *online since 1996*. *Aaaan.net*. Retrieved 12 May 2017, from <http://aaaan.net/olia-lialina-20-years-of-my-boyfriend-came-back-from-the-war/>

Distributed Legible City. *Jeffrey Shaw Compendium*. Retrieved 12 June 2017, from <http://www.jeffreyshawcompendium.com/portfolio/distributed-legible-city/>

Fiske, T., & Bottinelli, G. (2002). *'Tate Thames Dig', Mark Dion, 1999 | Tate*. *Tate*. Retrieved 2 November 2017, from <http://www.tate.org.uk/art/artworks/dion-tate-thames-dig-t07669>

Hansen, M. "An Interview with Mark Hansen". *Inspiration Comes in the Night*. *Wes Modes*, 2014. Web. Retrieved 17 June 2017, from <http://modes.io/mark-hansen-interview/>

Hansen, M., & Rubin, B. (2003). *Mark Hansen and Ben Rubin : listening post, December 17, 2002-March 9, 2003 from Whitney Museum of American Art*. Retrieved 21 June 2017, from <https://archive.org/stream/markhansenbenrub1624hans>

Hilj, I. (2010). *Interview with Marnix de Nijs*. *V2_Institute for the Unstable Media*. Retrieved 15 June 2017, from <http://v2.nl/archive/articles/interview-with-marnix-de-nijs>

History of computer animation. *En.wikipedia.org*. Retrieved 26 June 2017, from https://en.wikipedia.org/wiki/History_of_computer_animation

History of the Internet. *En.wikipedia.org*. Retrieved 19 May 2017, from https://en.wikipedia.org/wiki/History_of_the_Internet#Transition_towards_the_Internet

How to Construct an Orange? - text. *C3.hu*. Retrieved 2 November 2017, from http://www.c3.hu/~acsorgo/angol/narancs_leiras.html

HTML Frames. *www.tutorialspoint.com*. Retrieved 16 May 2017, from https://www.tutorialspoint.com/html/html_frames.htm

Hyperlink. *En.wikipedia.org*. Retrieved 6 July 2017, from <https://en.wikipedia.org/wiki/Hyperlink#History>

Legible City. Jeffrey Shaw Compendium. Retrieved 12 June 2017, from <http://www.jeffreyshawcompendium.com/portfolio/legible-city/>

Lialina, O. *Last Real Net Art Museum. Myboyfriendcamebackfromth.ewar.ru.* Retrieved 17 May 2017, from <http://myboyfriendcamebackfromth.ewar.ru/>

Lialina, O. (1996). *My Boyfriend Came Back From The War. Teleportacia.org.* Retrieved 18 May 2017, from <http://www.teleportacia.org/war/>

Lialina, O. (2017). *All You Need is Link. Rhizome.* Retrieved 19 May 2017, from <http://rhizome.org/editorial/2017/feb/21/all-you-need-is-link/>

Mirror_piece - 2010/2011. Marnixdenijs.nl. Retrieved 15 June 2017, from http://www.marnixdenijs.nl/mirror_piece.htm

Modes, W. (2013). Revisiting the Technical Achievements of Listening Post Ten Years On. *NMEDIAC: The Journal Of New Media And Culture*, 9(1). Retrieved 16 June 2017, from <http://ibiblio.org/nmediac/winter2014/Articles/ListeningPost.html>

Olia Lialina - 20 Years Of My Boyfriend Came Back From The War. Mu.nl. Retrieved 19 May 2017, from <http://mu.nl/en/exhibitions/olia-lialina-20-years-of-my-boyfriend-came-back-from-the-war>

Physiognomic Scrutinizer- 2008/2009. Marnixdenijs.nl. Retrieved 15 June 2017, from http://www.marnixdenijs.nl/physiognomic_scrutinizer.htm

Ribisch, F. (2016). *LEGIBLE CITY PROTOTYPE BY JEFFREY SHAW - ADA | Archive of Digital Art. Digitalartarchive.at.* Retrieved 13 June 2017, from <https://www.digitalartarchive.at/database/general/work/legible-city-prototype.html>

Roestenburg, N. (2016). *Post-Digital Blog | INTERVIEW | Olia Lialina, 20 years MBCBFTW. Networkcultures.org.* Retrieved 3 July 2017, from <http://networkcultures.org/postdigital/2016/02/25/interview-olia-lialina-20-years-mbcbftw/>

Search Engine Market Share. Netmarketshare.com. Retrieved 3 November 2017, from <https://www.netmarketshare.com/search-engine-market-share.aspx?qprid=4&qpcustomd=0>

Sterling, B., & Kadrey, R. *Dead Media Project: A modest proposal. Deadmedia.org.* Retrieved 25 April 2017, from <http://www.deadmedia.org/modest-proposal.html>

Soviet–Afghan War. En.wikipedia.org. Retrieved 19 May 2017, from https://en.wikipedia.org/wiki/Soviet–Afghan_War

The Distributed Legible City. Jeffrey-shaw.net. Retrieved 24 May 2017, from http://www.jeffrey-shaw.net/html_main/show_work.php?record_id=102

The Legible City. Jeffrey-shaw.net. Retrieved 24 May 2017, from http://www.jeffrey-shaw.net/html_main/show_work.php?record_id=83

The Legible City (Prototype). Jeffrey-shaw.net. Retrieved 24 May 2017, from http://www.jeffrey-shaw.net/html_main/show_work.php?record_id=82

Ting, S. *Initiart Magazine*. *Initiartmagazine.com*. Retrieved 3 November 2017, from <http://www.initiartmagazine.com/interview.php?IVarchive=58>
Wayback Machine. *Web.archive.org*. Retrieved 2 November 2017, from <https://web.archive.org/>

Interviews

- (B. Bónis, personal communication, November 1, 2017).
- (B. Bónis, personal communication, November 15, 2017).
- (J. Chozas, personal communication, December 1, 2017).
- (J. Chozas, personal communication, November 3, 2017).
- (K. Óry, personal communication, November 12, 2017).
- (K. Óry, personal communication, October 23, 2017).
- (T. Colstrup, personal communication, November 27, 2017).
- (T. M. Varga, personal communication, November 6, 2017).
- (T. M. Varga, personal communication, October 24, 2017).
- (V. Papp, personal communication, November 8, 2017).
- (V. Papp, personal communication, October 23, 2017).