



UNIVERSIDADE CATÓLICA PORTUGUESA

NEW MEDIA TECHNOLOGIES TO ENHANCE LEARNING AND AUDIENCE ENGAGEMENT IN CULTURAL INSTITUTIONS

Report submitted to Universidade Católica Portuguesa to
obtain a Master's Degree in Culture Studies: Management of
the Arts and Culture

By

Jessica Theubet

Universidade Católica Portuguesa

September 2020



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Abstract

New media technologies have drastically changed most aspects of our daily lives in a short time span. They have become ubiquitous in the workspace, they have made their way to our homes and remarkably changed the ways by which knowledge is disseminated. The growing pervasiveness of those technologies has led to fundamental transformations in cultural institutions' organisational factors on a global scale (Bearman and Geber 2008, 387). New media technologies have also contributed to changing educational institutions on a managerial level and on a pedagogical level; they have paved the way for the digitalisation of the classroom and for more interactive ways of learning, some of whose concepts have been implemented in cultural institutions for the dissemination of knowledge.

In this internship report, we will particularly drive our attention towards the use of new media technologies in cultural institutions and to the correlation between those technologies, audience engagement and learning experience enhancement within cultural institutions.

It is our belief that such technologies have the potential to enhance cultural institutions' educational programs, strengthen audience engagement, and create stronger and more genuine links between traditional institutions and the audience. In this report, we will qualitatively and critically shed light on how new media technologies have fundamentally contributed to changing audience engagement and ways of learning within the cultural institution. We will put the highlight on the institutional shifts and extensions that new media technologies gave rise to. Then, we will drive our attention towards the educational possibilities that those technologies have led to, we will see how new media technologies can contribute to improving engagement and learning for audiences with disabilities, and we will, finally, shed light on the experiential metamorphoses that new media technologies have induced within cultural institutions. We will use our case study, which is a Viennese augmented reality application named Artivive, in order strengthen our analyses and respond to our research question.

Key words: new media technologies, education, audience engagement, augmented reality, experience

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Introduction

New technologies have become vital to the functioning of the economy on a global scale. Those technologies have rapidly made their way into our everyday lives in a very short time span; most manifestations of contemporary life are somehow interconnected with those technologies, and more precisely with connected technologies that are characterized by their mobility, such as mobile phones. The growing ubiquity of those objects has seemingly led to changing the cadence of the everyday. The evolution of technology and new media technologies has given rise to a shift in the way we communicate and in the way we perceive time, hence inducing change in the way institutions are organized. The Internet has allowed access to information in a few seconds, made knowledge instantly and widely available, and has contributed to fundamentally changing the ways by which societies are organized. As a result, the technologies that make the access to the Internet possible have become great communicational tools, sources of knowledge and the possession of those connected objects has become – in most cases – a work environment necessity. In this way, the fact that those technologies have become present in most aspects of daily life has led to changes in the way work is organized, in the way educational institutions and curricula are organized and experienced, and in the way entertainment time is spent and lived, for example.

New media technologies have widely contributed to changing ways of teaching and learning in the classroom (Pilgrim, Bledsoe, and Reily 2012, 17). Indeed, they have contributed to making the classroom more intuitive and interactive and perhaps more appealing to students (Pilgrim, Bledsoe, and Reily 2012, 17). Those technologies, which are very often available on laptops and engines that are easily portable, provide students with learning tools and applications that have the potential to further engage the students into the learning of a specific subject through different processes in a successful manner (Pilgrim, Bledsoe, and Reily 2012, 17-9). The interfaces and contents of those applications and softwares can be used to enhance communication and collaboration skills (Pilgrim, Bledsoe, and Reily 2012, 17-9), to monitor students' progress (Pilgrim, Bledsoe, and Reily 2012, 20), and to enhance organizational skills (Pilgrim, Bledsoe, and Reily 2012, 19). The

interactive and virtual characteristics of those tools hence leading to learning enhancement (Pilgrim, Bledsoe, and Reily 2012, 20). If new media technologies have proven to have been useful, relevant and efficient for the dissemination of knowledge in the classroom, then they might have a similar effect on the dissemination of knowledge and learning practices in cultural institutions, at large.

The curricular internship was conducted at Galerie Rudolf Leeb, which is a contemporary art gallery located in Vienna, Austria, for a period of four months. In this internship report, we will particularly drive our attention towards the use of new media technologies in cultural institutions and to the correlation between those technologies, audience engagement and learning experience enhancement within cultural institutions. New media technologies and the digitalization of the museum space have led to substantial experiential shifts (Tomiuc 2014, 34); they have led to more immersive experiences (Tomiuc 2014, 34), experiences that tend to focus more on the senses (Stogner 2011, 117), and experiences that offer new learning models within the museum. Those technologies have undoubtedly changed the relationship between the audience, the institution and the content of the exhibition (Vaz et al. 2018, 36). They have, as a result, given rise to transformations in the museum's conditions of existence and its core definition (Tomiuc 2014, 35).

In a time that is marked by constant technological change and improvement, it is paramount to understand the potential consequences that those evolutions might lead to. Most importantly here, we will aim at understanding and critically reflecting on how new media technologies have contributed to enhancing learning and audience engagement within cultural institutions. To do so, we will provide, in a first part, qualitative analyses of new media technologies' impact on cultural institutions on an organizational level, we will then drive our attention to the educational shifts that they have led to, and finally shed light on the experiential metamorphoses that new media technologies have induced within cultural institutions. We will, in our first chapter, based on existing work and theories, analyse the definition of cultural institution, and frame the relevance of this definition with regards to our research. Then, we will examine the institutional and organizational changes that new media technologies have given rise to within cultural institutions, and emphasise the effects that they have had, which will lead us to evaluate the role that cyberspaces have

played for the image of cultural institutions, as well as in terms of audience engagement and learning experience. After this, we will assess how certain cultural institutions – mostly based in Vienna for the relevance of our research – have responded to the recent COVID-19 pandemic and shed light on they have successfully managed to respond to the shutdown of their institutions thanks to the use of new media technologies, and on how they have used them to maintain their audiences engaged and informed. In a second chapter, we will give a contextual statement of how new media technologies adapted to the ideological shift of cultural institutions and how this phenomenon has had impacted on the ways of learning in cultural institutions. We will shed light on how new media technologies can be used to enhance learning and audience engagement in cultural institutions, we will define the concept of edutainment – learning while having some degree of fun – and we will bring our attention to some of the dangers that an inappropriate use of new media technologies might lead to in an educational context, if entertainment processes were to prevail over pedagogy, for example. In a third chapter, we will examine the ways by which new media technologies have contributed to improving accessibility, engagement and learning for disabled audiences within cultural institutions. We will shed light on the different challenges that cultural institutions are facing in this regard. Then, we will stress the importance that new media technologies play in order to improve accessibility and experience within cultural institutions, and we will bring our attention to the different correlations and challenges that are present between new media technologies and social inclusion. After this, we will examine the experiential shifts that new media technologies have engendered, more particularly, we will reflect on how the use of those technologies have led to immersive experiences, and led the viewer to go from a passive state to an active state, inducing him/her to actively interact with the content available in an exhibition. Finally, we will explain why such experiences tend to lead the viewer away from the original cultural artefact and highlight the consequences that it might engender. As a response to this, we will identify why those shifts might lead to learning enhancement and a deeper form of audience engagement.

In a second part, we will direct our attention towards one of our case studies – Artivive, a Viennese augmented reality (AR) tool – that we chose for the purpose of this research. This case study will allow us to reflect upon and perhaps solidify the hypothesis

made in the first part. Then, we will provide an analysis of the contemporary art gallery in which the internship was conducted, Galerie Rudolf Leeb located in Vienna, Austria, and we will provide an evaluation of how and on which levels the art gallery responds to the use of new media technologies within its space and organizational structure. We will examine the Artivive augmented reality tool in an edutainment context, and to do so, we will provide critical analyses of several edutainment examples that were used with the Artivive tool. Thus, we will evaluate how successful the AR platform is with regards to edutainment endeavours, and put the emphasis on the educational advantages that Artivive for edutainment can lead to and to the experiential changes that it induces. In this way, we will evaluate on which levels Artivive succeeds, or not, to enhance audience and learning engagement within cultural institutions, more specifically here, we will refer to its application in a Viennese museum. We will also focus on the Artivive application for artistic purposes in cultural institutions, and we will give an account of the experiential changes that it might have given rise to and analyse its effect on audience engagement. To do so, we will use specific examples of artworks that were temporarily exhibited at Galerie Rudolf Leeb. Then, we will bring our attention to the critical analysis of the gallery in which the internship was conducted, and use Galerie Rudolf Leeb as a case study for this research. We will give a thorough account of the institutional and organizational features of the gallery, we will shed light on the relevance of its program in relation to contemporary political, aesthetic and societal issues, we will provide a theoretical analysis of its audience segmentation, we will describe the tasks that were conducted at the gallery, and we will frame, as much as possible, the analysis of the contemporary art gallery in the context of this research. In other words, we will assess Galerie Rudolf Leeb's use of new media technologies for audience engagement and learning engagement throughout the chapter, and put the highlight on some factors that might have successfully contributed to enhancing learning and audience engagement within the gallery.

As a result of the elaboration of our theoretical framework, of the critical analyses of the theories highlighted in that part, and of the critical analyses of our case studies, we believe that we will be brought to encouraging conclusions with regard to the use of new media technologies within cultural institutions, and their ability to further enhance audience engagement and learning. It is liable that we be led to the conclusion, thanks to

the analyses of relevant theories in the context of our objects of study, that new media technologies might indeed, thanks their interactive and immersive nature and thanks to their narrative possibilities, contribute to leading to more fruitful experiences in cultural institutions, and to provide more meaningful engagement with the audience, and as result, enhance learning and the acquisition and transmission of knowledge in relation to cultural heritage, and we will use theories and critically analyse phenomena in order to assess the results of our initial hypotheses throughout this report.

2. Conceptual Framework:

New media technologies have drastically changed most aspects of our daily lives in a short time span. They have become ubiquitous in the workspace, they have made their way to our homes and remarkably changed the ways by which knowledge is disseminated. The growing pervasiveness of those technologies has led to fundamental transformations in cultural institutions' organisational factors on a global scale (Bearman and Geber 2008, 387). New media technologies have also contributed to changing educational institutions on a managerial level and on a pedagogical level; they have paved the way for the digitalisation of the classroom and for more interactive ways of learning, some of whose concepts have been implemented in cultural institutions for the dissemination of knowledge. It is our belief that such technologies have the potential to enhance cultural institutions' educational programs, strengthen audience engagement, and create stronger and more genuine links between traditional cultural institutions and the audience. In this part, we will qualitatively analyse how new media technologies have fundamentally contributed to changing audience engagement and ways of learning within the cultural institution. To do so, we will first provide a definition of cultural institution and highlight the relevance of this definition in relation to our research; since we will be using examples in association with both art galleries and museums, and because there are substantial discrepancies between the two, we will clarify what is meant by cultural institution. Then, we will shed light on the institutional shifts and extensions that new media technologies allowed. We will stress the importance and the roles that cyberspaces have been playing for cultural institutions, audience engagement and learning experience, which will lead us to evaluate cultural institutions' responses to the recent COVID-19 pandemic. All cultural institutions were led to close their doors to the public, at least in Austria, for a certain period of time, and we will analyse the ways by which those institutions have responded to this challenge thanks to new media technologies, namely cyberspaces, and stress the importance that cyberspaces have played in this regard, at that specific moment in time. After this, we will drive our attention towards the educational possibilities that those technologies have to offer. We will first give contextual information on the changes that educational institutions have undergone in terms of organisation, pedagogy and ideology,

and we will then make a correlation between this ideological shift and its application through new media technologies. Then, we will put the highlight on the ways by which new media technologies can be used to enhance pedagogy and audience engagement in cultural institutions. We will define edutainment, and determine the effects that it can have on educational programs and endeavours within cultural institutions. We will drive our attention to theories that warn against the dangers that an inappropriate use of new media technologies might engender, more precisely to the dangers that sensationalist endeavours might generate within the cultural institution. Then, we will examine the role that new media technologies play in relation to disability and social inclusion. In a third chapter, we will examine the importance that new media technologies have been playing in terms of accessibility, engagement and learning among disabled audiences. We will shed light on the different challenges that cultural institutions have been facing in this regard, we will put the emphasis on new media technologies' contribution to the enhancement of disabled people's engagement and learning experience within and outside cultural institutions, and we will bring our attention to the correlations existing between new media technologies and social inclusion criteria. Finally, we will shed light on the experiential metamorphoses that new media technologies induced within the cultural institution's spaces. We will explain the immersive nature of new media technologies and give prominence so as to how immersion might enhance learning and engagement in cultural institutions, we will also put the emphasis on how new media technologies tend to drive the viewer from a passive to an active state and lead lead him/her away from the original artefact, and set forth to the effects that those phenomena have on learning and engagement.

We will frame our analysis within the scope of the theory that has been produced on those subjects and we will solidify our argument with specific examples with a particular focus on Vienna's cultural scene, since the capital is geographically relevant to the objects our research.

2.1 New media Technologies within the cultural institution:

2.1.1 What is a cultural institution?

Within the scope of this internship report, we will illustrate the arguments and hypotheses made thanks to specific examples. Those examples will be based on phenomena that took place both in museums and art galleries. The four-month curricular internship that makes the object of this research was conducted in a contemporary art gallery, which we used as a case study for the purpose of this research. Since we were inevitably brought – because of our first case study, Artitive, a Viennese AR tool, and the fact that it has widely been used in both museum and gallery settings – to give examples that took place in museum settings, we will employ the terminology “cultural institution(s)” when we refer to both museums and art galleries throughout our research. It is evident that museums and art galleries are inherently contrastive, an art gallery being essentially commercial and a museum being primarily dedicated to education, preservation and to promoting cultural heritage (ICOM 2017, 5-18). Both art galleries and museums are cultural institutions, they are both concerned, perhaps on different levels, to the transmission of knowledge and preservation of cultural work and heritage: “Cultural institutions are institutions with an acknowledged mission to engage in the conservation, interpretation and dissemination of cultural, scientific, and environmental knowledge, and promote activities meant to inform and educate citizens on associated aspects of culture, history, science and the environment.” (RICHS 2020)¹. In its definition of “cultural institution”, IGI Global includes “museums, art galleries, theatres, public libraries, archives, [and] festivals” (IGI Global 2020)², it is thus undeniable, that both museums and art galleries, regardless of their divergence in regard to certain criteria, can both be considered cultural institutions, on some level.

1 RICHS. 2020. “Cultural Institutions.” Accessed June 25, 2020. <https://resources.riches-project.eu/glossary/cultural-institutions/>.

2 IGI Global. 2020. “What is Cultural Institutions.” Accessed June 25, 2020. <https://www.igi-global.com/dictionary/the-relationships-between-cultural-institutions-and-companies/39245>.

Moreover, the discrepancies present between these two types of institutions will not obscure the core arguments of our research. Thus, it is only convenient to use this terminology in this context when we refer to one institution or the other.

2.1.2 The birth of a new kind of institution

It is undeniable that the internet and digital technologies have considerably changed the way work is organized within the cultural institution: “Social scientists who rely on the internet and other computer networks to conduct research know from firsthand experience that the most fundamental effects of digitalization on cultural production involve the restructuring of time, space, and place in daily work processes.” (Klinenberg and Benzecry 2005, 8). In this way, the emergence of digital technologies has contributed to the reconfiguration of the workforce within the institution; it has led to the creation of new positions and new sectors such as digital marketing or digital communication, which have become paramount to the good functioning of an institution, and changed the way sectors interact with one another within the institution (Bearman and Geber 2008, 385). Digital means of communication have changed the way we perceive time and space due to the expansion of the museum space online and considerably impacted the speed and state of knowledge dissemination to the audience. In “The End of the Beginning: Normativity in the Postdigital Museum”, Ross Parry defends throughout the article that digital technology has now become normative: “Either way [...] what we witness in these changing organizational shapes [...] is digital being defined confidently and clearly as a core and essential function of the museum. And it is in this way that these structures of domination provide us with our first examples of digital normativity” (Parry 2013, 30), indeed, it is evident that new technologies have become pervasive or normative in the cultural institution and what is essential is to focus on the repercussions that this newness has had on an institutional level. If new media technologies have become normative within the cultural institution, it entails that those institutions have had to adapt to those major institutional and informational transformations and put considerable effort into understanding those technologies and their challenges: “If museums are to engage a broad range of the public in today’s media-saturated world, it will require understanding and

embracing twenty-first century media technologies.” (Stogner 2011, 118), in order to appear relevant to their audiences and as cultural institutions, it is paramount that those institutions maintain a pertinent digital identity and use new media technologies in a way that allows them to stand out amongst the overwhelming presence of those technologies and the information that they produce on a global scale. In this way, the various institutional branches of museums and galleries must implement strategies that guarantee the good transmission of cultural heritage: “Going forward, museums must determine how to mentor future generations in interpreting past and present cultures.” (Stogner 2011, 118).

Since “new media technologies are changing the very concept of the museum” (Tomiuc 2014, 35), it is important to note that legitimization of new media technologies as important tools for the purpose of information dissemination in museums or galleries could have hazardous consequences on the state of knowledge and on how cultural institutions are perceived: “When uncertainties multiply, when information and new technology overload show their effects causing knowledge to fragment, the resulting climate is passivity and anxiety. The expertise gathered in the past loses and the vision for the future is blurred.” (Bearman and Geber 2008, 387). While new media technologies have a real potential to create content that could further engage the audience of museums and galleries, those institutions are constantly facing the challenge of making their voices heard amongst the already-existing overwhelming amount of digital information available on the World Wide Web. Information overload is indeed a phenomenon of the twenty-first century that, because of the way new content proliferates on a daily basis, might cause confusion, distrust and tire. Thus, it is crucial that in the face of this phenomenon, cultural institutions maintain a voice that remains truthful to the core values of the institution and do not fall into creating sensationalist content. In order to ensure the transmission of cultural heritage and to protect the fundamental educational responsibilities of cultural institutions, it seems essential that the philosophy of the institution be the starting point of all content creation endeavours – regardless of the medium used – and in every aspect of decision-making in order for the museum or gallery to maintain a certain consistency and to make sure that cultural heritage is not undermined in the process, which would have unprecedented consequences. Additionally, museums and galleries must carefully analyse which new media technologies to incorporate and how to incorporate them to enhance the audience’s

engagement and learning experience with cultural artefacts: “If cultural institutions are to succeed in taking advantage of new technologies, it is crucial to identify correctly what needs to remain stable – their essence – and what can change, because it is a means of achieving that goal” (Bearman and Geber 2008, 388), new media technologies are not necessarily applicable – in terms of knowledge dissemination – to mirror and extend the knowledge present within any object or tradition, which means that each endeavour leaning towards the implementation of a new technology should be carefully considered beforehand. New technologies must, most importantly, remain tools that the institution uses for the dissemination of knowledge and must remain secondary to the original source of knowledge, which can be tangible or intangible in order not to lead to misinterpretations and historical amalgams. Regardless of the dangers revolving around new media technologies and their abilities, it is irrefutable that: “Museums can benefit from embracing new media technology not for its own sake but for the ways in which it offers new opportunities to contextualize and foster meaningful connections with the artefacts of our collective world heritage.” (Stogner 2011, 128), while we will, in this qualitative analysis, shed light on the risks associated to new media technology, we will predominantly put he emphasis and defend its potential with regards to audience engagement and education.

In parallel to this, new media technologies have allowed cultural institutions to establish a new kind of relationship with their audience: “The new museum reflects the dynamics and the multicultural nature of the 21st century, as it is an institution which favors dialogue, interpretation and experience.” (Tomiuc 2014, 34), although it is not explicitly underlined here, dialogue, interpretation and experience are factors that have been greatly enhanced thanks to the emergence of new media technology in the 21st century and before, hence impacting museums and galleries’ relationship with their visitors. In this way, these shifts have led cultural institutions to orientate their principal focus towards the visitor and providing memorable experiences to their audiences (Tomiuc 2014, 35-6). Those phenomena have naturally contributed to greatly changing the cultural institution from within (Tomiuc 2014, 35). Some digital technologies present within and outside the cultural institution allow the audience to actively engage with the content provided and to collaborate: “This “digital thinking” might manifest itself, for instance, in more open collaborative relationships with visitors, or in a more iterative approach to projects” (Parry

2013, 31), which is in line with the argument made by Sally Tallant in “Experiments in Integrated Programming”: “Recent curatorial discussions have focused on “new institutionalism”. A term borrowed from the social sciences, it proposes a transformation of the art institution from within. Characterised by open-mindedness and dialogue, and leading to events-based and process-based work.” (Tallant 2009). Thus, new technologies – even if indirectly – have contributed to shaking the foundations of cultural institutions by establishing new relationships with their audiences and by creating projects that reflect collaborative behaviours and experience-oriented processes. Technological transformations have allowed cultural institutions to adopt strategies that favour and that are made for the visitor, which has great potential to meaningfully engage and immerse the audience for educational purposes. However, if the cultural institution were to take an entertainment stance and turn into tourist attractions for the only purpose of raising visitor attendance, as it is the case for many museums according to Jens Hoffmann in *Theater of Exhibitions* (Hoffmann 2015, 16), the institution would fail to complete its duty to educate and distort heritage: “Immersive environments can significantly enhance how we contextualize, represent and interpret history and culture, but they can also misinform, obscure and detract from actual objects and artefacts.” (Stogner 2011, 128). In this way, putting entertainment at the centre of the transmission of heritage – above education – would be highly detrimental to the way cultural institutions are perceived and to the historical significance of traditions and cultural artefacts. Although such dangers are palpable and although new media technologies are the tools that can guarantee entertainment purposes by excellence, it is important to note that new media technologies are tools that have great pedagogical potential and that their beneficence resides solely in institutional decision-making.

2.1.3 Cyberspaces

New media technologies, or digital technologies, have also considerably contributed to blurring the boundaries between the digital and the physical: “After all, the emerging media that museums are able to use are characterized by their blending of the actually (presently) real and the virtually (ideally) real.” (Parry 2013, 31). Indeed, websites and social media – for instance – have allowed cultural institutions to exercise a presence that goes far beyond the physicality of the institution, a presence that uses physical components

as the basis for its existence: “Our perceptions are now evermore heightened toward these details, of how physical reality is blurred into the seemingly intangible digital realm.” (Kholeif 2018, 115). New media technologies have allowed the museum to digitally extend its influence and message to a place that can be “freely” accessed by anyone, at anytime, and the merging of those two realities, which can be highly favourable, drastically changed the institutional composition and representation of the cultural institution: “Through the use of cyberspace, most museums are extending the visitor experience beyond their borders: websites provide supplementary on-line information, exhibitions or educational programs, creating connections and direct access to a global audience.” (Tomiuc 2014, 35). Indeed, websites and social media favour the dissemination of basic information about the institution – opening hours and location, current exhibitions, ticket prices – but they also allow the audience to learn in more depth about the philosophy, goals of the institution and get more insights into a current exhibition, for instance. As we saw, those cyberspaces have the potential to reach a very large and global audience, the number of online users could exceed by ten times the number of physical visitors (Marty 2008, 84), which brings our attention so as to how crucial the cyberspace is to museums and art galleries: “The museum’s presence on the internet, in our days, may represent its very subsistence, since the lack of virtual communication may result in invisibility to many visitors.” (Vaz, Fernandes and Veiga 2018, 32). In this way, it is seemingly crucial that cultural institutions use those digital extensions to gain in relevance and have a bigger impact on audiences. The internet can be used to meaningfully engage and interact with visitors prior and/or after the physical visit, and extend the (learning) experience off-site.

Just as it is important for that the philosophy and goals of an institution be reflect on-site, so should it be off-site. Indeed, museums and galleries websites and social media pages should equally manage to reflect the values that they put at the core of their institution; a website should be visually attractive, intuitive and offer a variety of information to the visitor in order to trigger positive response and engagement. Social media and websites are cyberspaces that are often seen as complementary to the physical cultural institution: “Online museums visitors see museums and museum websites as complementary, where one is not likely to replace the other as users search for and access information.” (Marty 2008, 94), it is evident that those institutional entities – virtual and

physical – works on different levels and that they have different abilities; one is perhaps more likely to be used for a certain type of information or experience than the other. According to a survey that was conducted and explained by Paul F. Marty in the article, “Museum websites and museum visitors: digital museum resources and their use”, a great majority of survey respondents (92,6%) indicated that they preferred to visit exhibitions and view artefacts on-site rather than virtually (Marty 2008, 91). In the same manner, about three-quarters of survey respondents agreed that museums should use websites to create experiences “that cannot be duplicated in museums.” (Marty 2008, 91), so as to educational activities, respondents were quite divided (Marty 2008, 92). This study confirms that the physical museum and the virtual museum complement each other, and that both entities can be beneficial to the museum on different levels – since they can each achieve different kinds of audience engagement. The study also brings our attention to the fact that people have different expectations so as to what is produced by the institution virtually and physically, and cultural institutions should be able to respond to those expectations so as to enhance audience engagement and fortify their relevance to this audience. In this way, there is a kind of continuity that is – and must be – present between the museum’s virtual and physical presence, in order to allow a continuity and complementarity in terms of learning experience and audience engagement with regards to the cultural institution.

New media technologies have also contributed to significantly changing the exhibition landscape and components of the on-site museum. The incorporation of those technologies within the cultural institution’s space seemingly changed the way museums approach heritage and changed the way people interact with museum content, hence inducing an institutional reorganisation: “The use of mobile apps opened up, for museums, new channels of communication with their visitor, which extend to his or her personal space and go beyond the boundaries of the museum’s walls.” (Tomiuc 2014, 38), it is important to note that some mobile applications allow the experience to be extended off-site, which reinforces this idea of a complementarity and continuity between the physical and the virtual. In this manner, museum applications – which have been widely used since 2009 (Tomiuc 2014, 38) – are just one manifestation of what new media technologies can achieve to enhance the visitor’s learning experience and engagement. Those cyberspaces

created within the museum space have been creating a new kind of engagement that can be extended outside the museum and that complements more traditional means of learning within the museum space – wall texts, catalogues and so on – to enhance critical thinking.

2.1.4 Cultural institutions and COVID-19

New media technologies have been playing a major role within the scope of the recent COVID-19 pandemic, which emerged in December 2019 in Wuhan, China. Indeed, the COVID-19 pandemic has led manifold countries all over the world to take governmental action to slow down the spread of the virus, which drove many parts of the economy to shut down, most notably the cultural industry. In order to respond to the global health crisis, many cultural institutions used the means of new media technologies to keep their audiences engaged with the content of their institution. Thus, some museums and galleries started to put much effort into creating interactive virtual content for their audiences online. The Naturhistorisches Museum Wien offered virtual visits of their exhibitions online thanks to Google Arts&Culture (Naturhistorisches Museum Wien 2019)³ and regularly published explanatory videos on content relevant to the museum – for instance on how bees are important to our ecosystem – on Instagram using the hashtag #NHMWienFromHome (Naturhistorisches Museum Wien 2020)⁴. The Belvedere Museum in Vienna offered short online tours everyday at 3 p.m – everyday focusing on a different artwork – available on Instagram, Twitter, YouTube, and Facebook (Österreichische Galerie Belvedere 2020)⁵. The Kunsthistorisches Museum Wien offered similar options; the museum allowed the audience to experience the museum’s collection virtually using the hashtag #closedbutactive (Kunsthistorisches Museum Wien 2020)⁶, it invited the audience to take virtual tours – also available for children – thanks to their mobile

3 Naturhistorisches Museum Wien. 2019. “Visit the museum virtually.” Accessed May 1st, 2020.
https://www.nhm-wien.ac.at/en/online_content.

4 Naturhistorisches Museum Wien (@nhmwien). 2020. “#NHMWienFromHome – Bienen / Bees.” Instagram video, April 22, 2020.
https://www.instagram.com/tv/B_SOEckFdrv/?utm_source=ig_web_copy_link.

5 Österreichische Galerie Belvedere. 2020. “Enjoy the Belvedere digitally.” Accessed May 1, 2020.
<https://www.belvedere.at/en/digital>.

application named KHM Stories (Kunsthistorisches Museum Wien 2020)⁷, as well as to listen to the museum's podcast on Spotify and experience lectures and artist talks on their Youtube channel (Kunsthistorisches Museum Wien 2020)⁸.

All of these endeavours have allowed cultural institutions to expand their influence and presence virtually by offering engaging educational content regardless of the physical space's temporary closedown. These initiatives bring further attention so as so how crucial it is to include new media technologies within one's cultural institution and how efficient and fruitful those alternatives can be in terms for educational goals and audience engagement. According to ICOM Code of Ethics for Museums: "Museums have an important duty to develop their educational role and attract wider audiences from the community, locality, or group they serve. Interaction with the constituent community and promotion of their heritage is an integral part of the educational role of the museum." (ICOM 2017, 17), the digital presence of those institutions during the COVID-19 health crisis has precisely permitted museums and galleries to keep exercising their educational role and their duty to promote heritage. In this context, new media technologies alternatives have allowed a continuity of the institutional presence of the museum, alternatives which have allowed the cores values of the institution to be extended and actively preserved. Hence, making the virtual institution as important – and in this context more important – than its physical counterpart.

In this way, the institutional importance that new media technologies are playing is undeniable. Even though, and as we saw before, new media technologies have great potential to engage the audience and even though they have been vital and highly beneficial in times of crisis, those tools have a complementary role with regards to the physical core of the cultural institution and as we mentioned previously, there are certain criteria that the digital environment/space cannot fulfil: "It is believed that the virtual museum will never eliminate the longing for physical matter that is present in all of us."

6 Kunsthistorisches Museum Wien. 2020. "Discover Your Favourite Works in our Online Collection." Accessed May 1, 2020. <https://www.khm.at/en/objectdb/>.

7 Kunsthistorisches Museum Wien. 2020. "Virtual Museum Tours With Our App – Also Available for Kids!" Accessed May 1, 2020. <https://www.khm.at/en/learn/kunstvermittlung/app-khm-stories/>.

8 Kunsthistorisches Museum Wien. 2020. "Lectures / Talks & Interviews." Accessed May 1, 2020. <https://www.youtube.com/playlist?list=PLDoWx4K015JbGiDQ-HmL2qf0OmQYHJFcE>.

(Vaz, Fernandes and Veiga 2018, 32). Indeed, the experiences rendered by the digital space and the physical space are ontologically different and it seems rather conceivable that one would rather view an artefact in the three-dimensional space of the museum – as the survey that we previously mentioned showed. Likewise, the saturation of information present on digital platforms could lead the viewer to a passive assimilation of information: “I believe this [the quantity of information available on social media] may cause an inevitable fatigue for media, and in turn a fatigue for art.” (Kholeif 2018, 118). In this way, it is rather natural that the overwhelming amount of visual information present on social media – and not only – would lead one’s capacity for attention to wear off and would perhaps lead to the exhaustion of one’s excitement for those platforms, which is something that cultural institutions should theoretically be able to respond to in order to remain relevant and visible to the audience. It is nonetheless rather challenging to tangibly measure the implications that the phenomenon of information overload has on the way people perceive and interact with the digital content that museums and galleries create.

In addition, we would argue that the consequences of information overload present on new media technology platforms are integral components of those platforms’ condition of existence, it is crucial to acknowledge the dangers that such platforms can engender in order to properly respond to those challenges, but it seems that the potential that those platforms have in the disseminate of knowledge, heritage and in audience engagement is even greater. It is the cultural institution's responsibility to make sure that the knowledge produced on-site and off-site remains truthful and relevant to the historical factors of the original artefact. The means that are used by those institutions are mere tools, it is the way information is disseminated and the content itself that could – if incorrect or taken out of context, for example – have irreversible consequences to the state of knowledge and on cultural institutions as a whole, and not the tools.

Thus, one cannot deny that new media technologies have been playing an important role in the functioning of cultural institutions; in times of crisis – as we saw with the way museums responded to the COVID-19 pandemic challenges – they have allowed cultural institutions to remain active and to meaningfully take action to respond to those challenges. In the case of COVID-19, new media technologies have offered museums and galleries the possibility and the means to implement efficient temporary alternatives, and regardless of

the fact that audiences might tend to prefer to physically interact with artefacts, it is indisputable that the institutional extension of the cultural institution on digital platforms has allowed the institution to extend its relevance and reach out to maybe younger and more diverse audiences and to extend the learning experience (Stogner 2011,126), and has thus, grown vital to the cultural institution.

The emergence of new media technologies has led to a reorganisation of cultural institutions and has allowed them to create and use cyberspaces to enhance the audience's learning experience and engagement. Cyberspaces play, in this manner, an important role in the functioning and in the representation of museums, art galleries, and, we would argue, any kind of institution that has a message to convey, and that provides services to people.

2.2 New media technologies and education

2.2.1 A shift in the ideology of educational institutions

In this chapter, we will refer to educational institutions from a European Union perspective and make reference to – implicitly – particular institutions such as public primary and/ or high schools, we will not particularly refer to universities since their educational systems and functioning seem to differ substantially from other educational systems and stages.

In this way, the evolution of economic, political and technological ideologies have induced fundamental transformations in education: “As past centuries have shown, when pedagogical ideals change, so too do their forms. From frontal teaching to rows of tables and chairs, roundtables, open-air schools, and the technology-driven dissolution of the schoolhouse, the architecture of education make ideologies tangible.” (Axel et al. 2020)⁹. The rapid economic and mechanical developments that bloomed during the Industrial Revolution have given rise neo-liberal ideologies that have shaken the foundations and heart of society. In this way, the values defended by the neo-liberal ideology – free market, individual freedom, self-reliance – have tangibly impacted societies’ political and educational institutions on a global scale, and new media technologies have permitted a further enhancement of its values. In that manner, the concept of the classroom has gradually evolved with the dominant ideology its time: “Schools are inherently ideological institutions. They are responsible for shaping one’s conception, understanding, and practice of what Louis Althusser called the “social whole”.” (Axel et al. 2020)¹⁰. In “Ideology and Ideological State Apparatuses” (1971), Louis Althusser makes a distinction between two types of state apparatuses; the more violent Repressive State Apparatus – comprised of “the Government, the Administration, the Army, the Police, the Courts, the Prisons, etc.” (Althusser 1971, 14) – and the non-violent Ideological State Apparatus – comprised of

9 Axel, Nick, Bill Balaskas, Nikolaus Hirsch, Sofia Lemos, and Carolina Rito. 2020. “Editorial.” *The Contemporary Journal* 2, (March). <https://thecontemporaryjournal.org/issues/critical-pedagogies/architectures-ofeducation-editorial>.

10 Axel, Nick, Bill Balaskas, Nikolaus Hirsch, Sofia Lemos, and Carolina Rito. 2020. “Editorial.” *The Contemporary Journal* 2, (March). <https://thecontemporaryjournal.org/issues/critical-pedagogies/architectures-ofeducation-editorial>.

religious institutions, educational institutions, the media, cultural institutions, family structures, political institutions etc. (Althusser 1971, 14-15) –. In this essay, Louis Althusser, drives our attention so as to how Ideological State Apparatuses have contributed to dictating and controlling people’s ways of life and the minds of future generations through hegemony. In this manner, we can assuredly argue that the ideologies present within the structures of society – or Ideological and Repressive State Apparatuses according to Althusser – have greatly influenced educational methods: “Pervasive colonialism, patriarchy, traditional family structures, and different social models and systems of belief have long-informed practices of education.” (Axel et al. 2020)¹¹. The institutional foundations of a society, which are greatly influenced by economic ideology, contribute to shaping future generations by the perpetuation of the core values of the ideology in question, which is a phenomenon that is all the more palpable in the 21st century.

In this way, the educational methods of the past century have seemingly taken a more child-centered approach: “Conversely, with the child-centered turn in education theory that took place at the beginning of the twentieth century, classrooms and learning objects alike come to be designed at smaller scales, with brighter colors and softer materials. And beyond the classroom, playgrounds became spaces of pedagogical experimentation.” (Axel et al. 2020)¹². This approach, which favours self-improvement – also reflected in neo-liberal ideology –, experiments and which has a particular focus on experience, can also be seen in the way cultural institutions approach their audiences nowadays and the types of experiences that are offered by those institutions. Thus, the shift the educational institution's pedagogical approaches led to a shift in cultural institutions’ stance towards educational programs. The implementation of such methods is partially made possible thanks to the use of new media technologies: “With the proliferation of new learning models, platforms, and technologies, both the classroom and the student of tomorrow may

11 Axel, Nick, Bill Balaskas, Nikolaus Hirsch, Sofia Lemos, and Carolina Rito. 2020. “Editorial.” *The Contemporary Journal* 2, (March). <https://thecontemporaryjournal.org/issues/critical-pedagogies/architectures-ofeducation-editorial>.

12 Axel, Nick, Bill Balaskas, Nikolaus Hirsch, Sofia Lemos, and Carolina Rito. 2020. “Editorial.” *The Contemporary Journal* 2, (March). <https://thecontemporaryjournal.org/issues/critical-pedagogies/architectures-ofeducation-editorial>.

look nothing like they do today.” (Axel et al. 2020)¹³, new media technologies have not only allowed the implementation of new learning models but their growing ubiquity has also changed learners’ expectations. Since the investment in this sector of the economy is ever-growing, new media technologies are constantly evolving, which represents a challenge for educational and cultural institutions that need – in order to remain relevant the ideological evolution – to find ways to adapt to those continuous changes and come up with schemes to implement methods that would ensure learners’ critical thinking enhancement and a flawless knowledge distribution.

As a logical response to this, and as we previously mentioned, cultural institutions are taking – thanks to new media technologies – an approach that is more visitor-centred, that favours immersion and the creation of interactive experiences both on-site and off-site to enhance educational experiences in order to respond to new learning tendencies and keep the audience engaged. Likewise, as it is mentioned in “ICOM Code of Ethics for Museums”, education is a criterion that needs to be present at the core of most institutional endeavours (ICOM 2017, 24) and since “younger generations learn in very different styles than the traditional “passive observer” approach offered by many cultural museums” (Stogner 2011, 118), it is those institutions’ duty to respond to the expectations of both this audience segment and the segments that support more traditional educational means and exhibition experiences. Furthermore, and regardless of the media involved in the exhibition experience, the theoretical and physical constituents of the object of interest and the philosophy of the institution – as we mentioned before – should always be respected: “Displays and temporary exhibitions, physical or electronic, should be in accordance with the stated mission, policy and purpose of the museum. They should not compromise either the quality or the proper care and conservation of the collections.” (ICOM 2017, 25). The respect of the museum’s or gallery’s mission statement is the condition for a cultural institution to function, all the institutional shifts, shifts in educational programs that museums and galleries undergo, and all the others elements involved in their functioning must entirely revolve around the cultural institution's philosophy.

13 Axel, Nick, Bill Balaskas, Nikolaus Hirsch, Sofia Lemos, and Carolina Rito. 2020. “Editorial.” *The Contemporary Journal* 2, (March). <https://thecontemporaryjournal.org/issues/critical-pedagogies/architectures-ofeducation-editorial>.

In addition, the use of new media technologies in the museum might contribute to further echo the “educational turn” principles defended by Irit Rogoff in “Turning” (2008). Indeed, the author seems to characterize the “educational turn” as a phenomenon that fairly contrasts more traditional ways of learning. The author sheds light on a means of learning and a form of knowledge that would not be influenced by institutional rules and politics per se, but that would emerge from people getting together, exchanging and producing ideas (Rogoff 2008, 4). As a result, this form of knowledge – emerging from spontaneous intellectual interactions – would offer singular truths (Rogoff 2008, 9), it would have fallible criteria – an important criterion to the author – (Rogoff 2008, 8), and might have the potential to initiate a turn in education (Rogoff 2008, 9). The author, while considering the notion of space important, believes the museum to be a place of potential for this purpose (Rogoff 2008, 4). In this way, the museum space could be a place where ideas and concepts are created by its visitors. Although, according to Irit Rogoff’s theory, the knowledge created would not directly emerge from the content produced by the museum from people people’s interactions and minds, we would argue that museum content disseminated through new media technologies – because of the interactive, dynamic and perhaps more engaging nature of those technologies – might enhance the creation of discussions, and thus favour the creation of new ideas amongst groups of people within the museum space. Museum content hence acting, from this perspective, as a trigger for the (co)-creation of knowledge.

The Digital Age – which makes reference to the period in which technologies started to substantially make possible a faster transmission of information – (IGI Global 2020)¹⁴, the growing pervasiveness of new media technologies, and more generally, technological improvements and their ideological use have led to fundamental changes in the workplace and in the quality of our our daily lives. These shifts have brought changes in the way we learn, and have brought educational and cultural institutions to adapt, which has resulted in learning methods that are more centred on the individual’s experience, immersion and action. New media technologies are great tools ensure such experiences and have the potential to enhance learning on the condition that cultural institutions put all their effort in

14 IGI Global. 2020. “What is Digital Age.” Accessed September 5, 2020. <https://www.igi-global.com/dictionary/resource-sharing/7562>.

the respect of their mission statement's philosophy and in divulging accurate information related to cultural artefacts, hence putting education at the centre of their endeavours.

2.2.2 New media technologies to enhance education and engagement

Educational materials, and different forms of knowledge dissemination, are necessary in order for one to fully understand the purposes and narratives of an exhibition. Amongst those resources, walls texts, catalogues and leaflets are the most traditional and common. Those sources give crucial information on the curator's choices, the theme(s) of the exhibition, the content of the exhibition and its narrative(s); they play an integral role in an exhibition, since without context, one would most likely not be able to meaningfully interact and to understand the artefacts and/or objects present in an exhibition. Other means of information dissemination, from a Western perspective, such as audioguides are also widely available in cultural institutions. Audio-guides are complementary educational tools – often available both for adults and children – that provide additional information to specific artworks or artefacts. They allow the visitor to engage more deeply in the content of the exhibition and to learn in a more interactive manner. New media technologies have allowed the creation of new learning models within the museum space: “The new communication devices are the pens, pencils, and printing presses of future generations, and are evolving as essentials tools of cultural representation and interpretation” (Stogner 2011, 118), which have the potential to enhance the audience's learning experience. Mobile applications, for instance, can be efficient tools of information dissemination: “Smartphone apps have the potential to promote the museum, to support the visitors' meaning-making by framing and focusing their activities and interactions, as well as to build up the visitor's active participation and follow up beyond the museum. And, especially with the insertion in the application technologies of augmented reality, the visitor experience of the museum is highly enriched in terms of learning, entertainment and creativity.” (Tomiuc 2014, 42). In this way, mobile applications allow the creation of virtual cyberspaces that – as we saw with the Kunsthistorisches Museum Wien's KHM Stories application – have the ability to enhance learning. The experiences generated by those tools, and the narratives that they create through the use of virtual or augmented reality, for example, are generally immersive and perhaps more memorable; they invite the viewer to fully and sometimes

actively become part of the experience generated by those tools, thus enhancing education and engagement.

New media technologies allow the creation of interfaces that facilitate the “learning by doing” methodology – since such platforms often ask the viewer to actively participate and actively use those interfaces, which sometimes allow the co-creation of meaning. In relation to this phenomenon, Sarah Cook and Beryl Graham, in *Rethinking Curating*, bring our attention to the semantic effects that the use of such displays can have on the way we interpret artefacts: “If, as every good educator knows, people learn by doing, then the audience need to interact, and if they are to interact, then the interface must be clear. If the curator or exhibition designer changes the interface, then this might change the work’s meaning and technological context” (Graham and Cook 2010, 170). Thus, in order to provide the best educational experience to the audience it seems crucial that the technology be manipulated with ease and that the platform be as precise as possible in order not to distort the artefact’s core features and sources of meaning. If one achieves to render available intuitive platforms to the audience for learning purposes, then the outcomes could be highly beneficial both for the cultural institution and the visitor regardless of the fact that the use of those interfaces necessarily induce a change in people’s ways of seeing and interpreting the artefact as it is hypothesized by Sarah Cook and Beryl Graham. In addition to this, George E. Hein in *Learning in the Museum* (1998), states: “First, routine experiences that do not challenge and stimulate us may not be educative. This idea is now frequently enunciated in the phrase that in order to be educative, experiences must be not only “hands-on” but also “minds-on.” Second, it is not sufficient for experiences to be “lively, vivid, and ‘interesting’”; they must also be organized to be educative.” (Hein 1998, 2), while using John Dewey’s view on education in the museum for the basis of his interpretation, the author puts the emphasis on the growing necessity for museums materials to enhance the viewer’s critical thinking and for museums to put education at the core of experiential endeavours. Indeed, allowing the viewer to not only become the actor of his own the experience through new media technology platforms but to to actively (and critically) co-create meaning would necessarily lead to more fruitful educational experiences.

As a result, such initiatives could lead visitors to growingly become more and more active in and committed to the content created by a cultural institution. As it is argued in one of Tate Papers' article entitled, "Tools to Understand: An Evaluation of the Interpretation Material used in Tate Modern's Rothko Exhibition" (2009), the visitor can improve his/her status from an inexperienced to an experienced visitor thanks to educational materials: "When visitors gain more experience, they can move up the pyramid. Well-designed educational material can help visitors in this process." (Scott and Meijer 2009)¹⁵. The pyramid that is mentioned here, refers to the Rijksmuseum's audience profile that has three levels of segmentation "inexperienced", at the bottom, then "repeat", and "experienced". New media technologies have great potential to initiate such process because of their ability to enhance's the audience's engagement, which is in museums' interest: "Museums want their visitors to have a high-quality visit. They want to encourage people to immerse themselves with the art works, to move up the ladder of engagement." (Scott and Meijer 2009)¹⁶. However, and as we previously mentioned, cultural institutions must carefully implement those engagement strategies; it is paramount that education remains a central criterion in the methods used so as not to shift the focus towards entertainment.

2.2.3 Sensationalism over education?

The development of new media technologies has dramatically changed our everyday lives, it has changed the way we conceive time, space, the way we communicate, and our relationship towards the other. The Digital Age has been giving us the opportunity to express our creativity, skills and ideas to such an extent that it has led to platforms that are saturated with different information coming from so many different sources that it has come difficult for one to decipher the truth and to know what to believe. Charlie Gere, in the article "New Media Art and the Gallery in the Digital Age", argues that: "The increasing complexity and speed of contemporary technology is the cause of both euphoria

15 Scott, Minnie, and Renate Meijer. 2009. "Tools to Understand: An Evaluation of the Interpretation Material used in Tate Modern's Rothko Exhibition." *Tate Papers* 11 (Spring). Accessed May 11, 2020. <https://www.tate.org.uk/research/publications/tate-papers/11/tools-to-understand-an-evaluation-of-the-interpretation-material-used-in-tate-moderns-rothko-exhibition>.

16 Scott, Minnie, and Renate Meijer. 2009. "Tools to Understand: An Evaluation of the Interpretation Material used in Tate Modern's Rothko Exhibition." *Tate Papers* 11 (Spring). Accessed May 11, 2020. <https://www.tate.org.uk/research/publications/tate-papers/11/tools-to-understand-an-evaluation-of-the-interpretation-material-used-in-tate-moderns-rothko-exhibition>.

and anxiety.” (Gere 2004)¹⁷, a phenomenon seemingly aggravated by the overwhelming amount of information present on the Web. The Digital Age has also given rise to interactive platforms that allow constant mental and visual stimulation. According to Omar Kholeif, the author of *Goodbye, World! Looking at Art in the Digital Age* (2018): “We are in an age of ADHD, living in a constant state of seeking new forms of stimulation, exacerbated by these new modes of existence.” (Kholeif 2018, 119), while cultural institutions make use of those “new modes of existence” – allowed, for example, by social media platforms – in order to further engage and expand their audience through processes of stimulation on-site and off-site, it is important that those institutions evaluate the dangers that those processes of over-stimulation might engender.

Indeed, if cultural institutions came to create experiences that focused more on stimulation and entertainment rather than education, those institutions would fail to fulfil their duty to preserve and safeguard the good transmission of cultural heritage. In “Navigating Culture. Enhancing Visitor Museum Experience through Mobile Technologies. From Smartphone to Google Glass” (2014), Anamaria Tomiuc brings our attention to some of the consequences that the entertainment industry has had on the museum: “The cultural changes within the mediatized society generated real modifications in the museum’s constitution and an essential transition from an institution with an educational purpose towards an institution with a recreational purpose centered on the audience and its needs. More precisely, the museum is nowadays influenced by the consumption society and the entertainment era, aiming to transform art and culture in a spectacular performance. [...] Still, the learning outcome of the museum visit is second after its entertaining quality.” (Tomiuc 2014, 34-5). Although it is undeniable that cultural institutions are indeed influenced by the consumption society, one cannot assess with certainty that museums, as a whole, changed from having an educational focus to a sensationalist focus and that museums, nowadays, primarily aim at entertaining, before educating. Rather, it seems that the Digital Age has given cultural institutions the tools to implement more and more (engaging) educational programs and experiences, all of whose

17 Gere, Charlie. 2004. “New Media Art and the Gallery in the Digital Age.” *Tate Papers* 2 (Autumn). Accessed May 5, 2020. <https://www.tate.org.uk/research/publications/tate-papers/02/newmedia-art-and-the-gallery-in-the-digital-age>.

were not available in the past. Of course, the cultural institutions might be inclined, perhaps unconsciously, to favour entertainment and spectacle over education, which is something that Sally Tallant also emphasizes: “Curatorial claims for these projects [based on events] suggest a desire to distance itself from the work of education and learning departments whilst still wanting to create an environment, even an “aesthetic”, of academic engagement, but the overall aim is often to produce a spectacular event rather than an educational experience” (Tallant 2009)¹⁸, but overall, it seems rather delicate to know for sure – in some cases – when an endeavour is more entertaining than educational, the line standing between the two might sometimes be very subtle.

In this way, one can easily fathom why new media technologies might offer more entertaining experiences than more traditional means of information dissemination – such as catalogues and wall texts. The blending of entertainment and education, which most museums achieve at doing thanks to new technologies, gave birth to a term called edutainment (Balloffet, Courvoisier and Lagier 2014, 5). Maggie Brunette Stogner, in “The Immersive Cultural Museum Experience – Creating context and Story with New Media Technology” (2011) drives our attention so as to how some museums approach edutainment: “They [cultural museums] voice concern that digital technology undercuts true learning by converting education into edutainment and transforming the traditional museums into a theme park” (Stogner 2011, 117), however, edutainment, by definition and ideally, should be comprised of a perfect balance between education and entertainment, and it seems, in this manner, rather improbable that museums turn into theme parks using the concept of edutainment for this exact reason. Likewise, one might question what is meant by “true learning”, could “learning while having” fun not be also considered “true learning”? In this way, if well-manipulated, the concept of edutainment can be highly favourable to enhancing the audience’s learning experience and engagement thanks to new technologies: “Multimedia applications, connectivity, and interactivity make technology a variable (not a means) whose effects enrich the experience and its value. [...] the application of new technologies to the experience of edutainment enriches and transforms

18 Tallant, Sally. 2009. “Experiments in Integrated Programming.” *Tate Papers* 11 (Spring). Accessed May 5, 2020. <https://www.tate.org.uk/research/publications/tate-papers/11/experiments-in-integrated-programming>.

it, as these applications emphasize flexibility and interactivity and create previously unexplored opportunities.” (Addis 2005, 731) and thus, rendering learning more accessible through edutainment (Addis 2005, 731) and creating more memorable learning experiences (Addis 2005, 734).

Since interactivity is one of new media technologies’ innate features, new media technologies used for educational purposes by cultural institutions will always be – to a certain extent – entertaining, which is the reason why a balance between education and entertainment is crucial: “[...] those technologies must be properly designed to provide unique and exciting moments [...] as well as to ensure a magnificent and effective mixture between entertainment and education.” (Vaz, Fernandes and Veiga 2018, 45). In *Theater of Exhibitions*, Jens Hoffmann takes a similar stance: “That is not to say exhibitions should not be entertaining. But surely they should not only be entertainment. Looking at a well-curated exhibition should be an effort. It should be an educational, intellectually stimulating, inspiring experience.” (Hoffmann 2015, 21). New media technologies have in themselves/ by nature the potential to render museum experiences sensational because of their technological features, but those features can also be used for pedagogical initiatives and lead to promising results. New technologies have changed the way society is organized, they have changed the organizational factors of culture and educational institutions and changed the way we learn. The implementation of those technologies in cultural institutions can contribute, if certain criteria are respected, to attracting more people to the museum space, making museum content more accessible and thus, lead to increasing audience engagement, and to enhancing educational experiences.

2.3 New media technologies and disability

New media technologies have also contributed to significantly improving the lives of disabled people. The number of people who suffer from a disability accounts for, approximately, one fifth of the global population (Germann, Kaufman Broida and Broida 2003, 53), and it is paramount that endeavours be implemented in order to facilitate the practical and intellectual lives of those people on a global scale. It is each institution's responsibility to establish strategies to favour the inclusion of those people within their establishment, including cultural institutions: "The importance of access for people with disabilities in museums has been raised in past decades; however, removing barriers for them is not a simple task considering the complexity of museum services and the variety of disabilities which visitors may have. As spaces for public service, most museums have legal responsibilities to comply with the Americans with Disabilities Act of 1990 (ADA) and ensure adequate access to people with disabilities." (Cho and Jolley 2016, 221). In this way, a growing number of initiatives have been implemented in order to provide access to more and more people within cultural institutions, taking into consideration the different forms of disability that a person may have. However, and regardless of the fact that cultural organisations have a legal obligation in the United-States – as we saw – and also the United-Kingdom, for example, according to the Disability Discrimination Act that was implemented in 1995 and the Equality Act of 2010 (Shape 2013, 15), not all institutions have the means to respond to all the challenges that such adaptation might demand. Indeed, an institution, such as a small art gallery – like the gallery in which the internship was conducted, which is an element that we will later develop –, might not have the financial means to respond to those challenges, and the facility in which the cultural institution exercises its activity might not be favourable to certain adaptations, because of architectural limitations, for example. However, some institutions, such as Arts Council England and Shape Audiences – based in England – have been working on improving the accessibility of audiences with disability in order to overcome (social) accessibility difficulties: "Arts Council England's New Audiences Programmes has invested £1.8m in 112 projects supporting change within arts organisations to tackle barriers preventing disabled people from engaging with the arts. Projects have provided significant new insights into possible

ways forward which was particularly significant in 2003, the European Year of Disabled People. [...] The Lottery Capital programme has helped many organisations to address issues of physical access. However, New Audiences concentrated on supporting attitudinal and organisational change to create more inclusive cultures in arts organizations. Equata, a disability agency from the South West, developed a Disability Equality Training Programme called Impact, seeking to help mainstream organisations to reach their potential audience among disabled people.” (Cultivate 2020)¹⁹. In the same manner, the Austrian Federal Disability Equality Act of 2005, which was amended in 2014 (Legislationline 2020)²⁰, was implemented with aim of fighting against discrimination on the basis of physical disability and was implemented in order to reduce (physical) barriers to certain services within Austria, and in order to improve accessibility and social inclusion on this basis (Legislationline 2020)²¹. Although our study is mainly centered within a European context, as we previously mentioned, we did use other references in this part, while staying in the Western context, because we found those examples relevant to our object of study, and because we found some similarities and correspondences in the law in regard to accessibility and inclusion, and because those examples were, in this case, relevant to the consolidation of our argument and hypotheses.

In this way, the issue of physical access is one that is, of course, crucial in this context, but in this section we will drive our attention towards the issues of social inclusion, audience engagement and education enhancement for disabled people through the use of new media technologies. Indeed, the aim of this part is to put the highlight on how new media technologies can contribute to improving engagement and enhancing learning for disabled people. To do so, we will shed light on the challenges that a cultural institution might encounter in the implementation of relevant, effective and sustainable initiatives for a better inclusion of disabled people, then we will put the emphasis on new media technologies’ potential to enhance disabled people’s engagement and learning within

19 Cultivate. 2020. “Reaching disabled audiences.” Accessed June 15, 2020. <http://www.cultivate-em.com/uploads/reaching-disabled-audiences.pdf>.

20 Legislationline. 2020. “Federal Disability Equality Act (2005, amended 2014) (in German).” Accessed September 6, 2020. <https://www.legislationline.org/documents/id/20786>.

21 Legislationline. 2020. “Federal Disability Equality Act (2005, amended 2014) (in German).” Accessed September 6, 2020. <https://www.legislationline.org/documents/id/20786>.

a cultural institution, which will lead to to reflect upon some of the social inclusion issues that are associated to disable audiences, and we will see if new media technologies might contribute to surpassing such impediment.

2.3.1 Challenges and urges

In response to the percentage of people who suffer from a disability on a global scale and the liability for this percentage to drastically increase, in the UK for example (Shape 2013, 3), as the global population is growing older due to medical progress, it is rather pressing – and a duty – for cultural institutions, amongst other institutions, to adopt strategies that would guarantee flawlessly inclusive, rewarding, and rich experiences for disabled audiences. However, such adaptation might appear challenging to some cultural institutions: “NorDAF (Northern Disability Arts Forum) recognised that some organisations can find it daunting to accommodate the full diversity of requirements.” (Cultivate 2020)²², for example: “Galleries can be difficult for disabled or elderly people – many do not provide adequate seating in galleries to support people who need regular rest. Captions on pictures are often small.” (Cultivate 2020)²³. In this manner, it is undeniable that regardless of the improvements that have been made in terms of physical access for disabled audiences (Shape 2013, 19), there is still much to improve within cultural institutions to ensure that a fully inclusive setting be successful implemented. Some people might find it difficult to buy tickets for specific events and find appropriate information on the institution's cultural program and accessibility (Shape 2013, 4). Indeed, in the following study: “People with disabilities visit art museums: an exploratory study of obstacles and difficulties”, the authors bring our attention to the fact that some “Participants expressed their need for reliable, up-to-date information about the physical obstacles they might face, noting that difficulties arising from the physical environment light be a barrier to the museum experience, especially when it was a person’s first visit to a museum. Additionally, these difficulties on the way to and from the museum negatively

22 Cultivate. 2020. “Reaching disabled audiences.” Accessed June 15, 2020. <http://www.cultivate-em.com/uploads/reaching-disabled-audiences.pdf>.

23 Cultivate. 2020. “Reaching disabled audiences.” Accessed June 15, 2020. <http://www.cultivate-em.com/uploads/reaching-disabled-audiences.pdf>.

affected the quality of the visit.” (Poria, Reichel and Brandt 2009, 121). New media technologies can be efficient tools to respond to such issues of misinformation and/or lack of information: “As with any audience, establishing effective lines of communication is vital if disabled people are going to be attracted and retained as audience members and participants.” (Cultivate 2020)²⁴, although here there is no explicit reference to new media technologies, most communicational and marketing strategies are now implemented and diffused thanks to new media platforms such as websites and social media. It follows that Shape Audiences also defended and highlighted such argument in a study entitled “Understanding Disabled People as Audiences 2012-13”: “In our experience of working with venues, we have found that organisations are focussed on their physical access and are failing to effectively promote their accessible events and access schemes through their marketing and communication strategies. [...] There is a need to combine enhanced physical access with effective marketing strategies, practices and procedures.” (Shape 2013, 16). In this way, it is paramount that people with disabilities be properly informed on the accessibility factors of a cultural institution and, we would argue, on the adapted programs that they offer to disabled audiences. Thus, new media technologies have the potential to effectively transmit such information. For example, audio descriptions on a technological device could be provided in order for visually impaired people to be able to experience a performance or a painting: “The performing arts sector is increasingly responding to the demands of deaf and disabled audience members. Signed performances and Audio Description enable deaf and visually impaired audiences to enjoy performances.” (Cultivate 2020)²⁵, and it would be the cultural institution’s duty to provide the necessary information through different platforms in order for disabled audiences to feel more included and engaged in the content produced by the cultural institution. As a result, it would probably contribute to creating stronger bonds between cultural institutions and these audiences. New media technologies are tools that can be greatly beneficial, we would argue, to all audiences both inside and outside the museum or art gallery, and that

24 Cultivate. 2020. “Reaching disabled audiences.” Accessed June 15, 2020. <http://www.cultivate-em.com/uploads/reaching-disabled-audiences.pdf>.

25 Cultivate. 2020. “Reaching disabled audiences.” Accessed June 15, 2020. <http://www.cultivate-em.com/uploads/reaching-disabled-audiences.pdf>.

can contribute to responding to numerous challenges with regards to the inclusion of disabled audiences in cultural institutions.

2.3.2 Tools with tangible advantages

While certain technologies, such as digital access points in cultural institutions might not be easy to access for people in wheelchairs (Ruiz et al. 2011, 1411), other digital interfaces can contribute to enhancing the learning experience of the visitor: “In the case of paintings and photographs, as well as sculptures, interpretive signage are often not easily accessible to the disabled. A simple possible solution is to provide headphones or books (in Braille for the visually impaired), often available in the museum shop, which include information about the exhibits. The innovation of new technologies (e.g Talking Signs which rely on PointLink technology) could enable information to be transmitted directly to a person’s mobile phone.” (Poria, Reichel and Brandt 2009, 127). Moreover, in a study entitled “Museum Disability: Social Inclusion Opportunities Through Innovative New Media Practices”, Rebecca McMillen argues: “While museums are often limited in their physical structures and spaces, there appears to be ample opportunity to utilize innovative new media strategies to enhance disability access. For example, participants suggested that the museum invest in more interactive or touch exhibits. Participants also hoped for audio tour improvements that would make it easier to read, manage and ultimately become a better museum experience.” (McMillen 2015, 104). In this manner, there is a consensus that sheds light on the tangible benefits that new media technologies can lead to in terms of engagement, especially here in regard to disabled people.

In “The Future is in the Margins, The Role of Technology and Disability in Educational Reform”, the authors also shed light on the role of new media technologies with a specific focus on learning and teaching: “New technologies have been remarkably effective in this assistive role; even the most disparaging critic of technology in the classroom usually praises the remarkable benefits of assistive technologies for students with disabilities. [...] For individuals with motor disabilities [...], the advantages of expanded keyboards, single switch devices, head-mounted infrared pointers, speech recognition software and word prediction are obvious. Similarly, refreshable Braille devices, talking word processors, screen readers, screen enlargers, and tactile graphic pads

offers clear advantages for individuals who are blind.” (Rose and Meyer 2000, 1-2). New technologies and new media technologies are undeniably great contributors to the learning of students with physical disabilities. The authors also argue that: “The new media, especially digital media, differ from traditional media in a numbers of ways. In our view, what is of most significance to the future of education, especially for students with disabilities, is the unequaled flexibility and transformability of digital media.” (Rose and Meyer 2000, 3), the multifarious possibilities revolving around new media technologies are inevitably greatly beneficial – because of their adaptive nature – to the transmission of knowledge for all children, and especially children with special needs, which is a valuable asset of the implementation of more inclusive pedagogical designs. Just as new media technologies can greatly contribute to learning enhancement in the classroom for individuals with disabilities, they can also be greatly valuable for educational initiatives in cultural institutions, as we previously argued. As a result, new media interfaces, by allowing a consequential enhancement in learning accessibility, have made possible what was previously not imaginable for learners with disabilities.

In this manner, cultural institutions have the potential, thanks to new media technologies to create rewarding learning experiences and to enhance engagement among disabled audiences, regardless of the person’s disability. Indeed, some cultural institutions have already incorporated such technologies to their program in order to reach out to disabled people:

“Another innovative new media disability access example can be seen in Didù, a relief printing technique developed by the Spanish company Estudios Durero [...]. Through the technique of Didù, graphic designers are able to reproduce digital images with a variety of textures, shapes, and volumes, which allows people to touch images in order to [...] experience them. This technology, accessible to everyone, also has the potential to open the door to the world of art and photography for the visually impaired. [...] One example is the “Touch Art” exhibit in the Bilbao Fine Arts Museum. In this project, five paintings from the permanent collection of the Bilbao Fine Arts Museum were reproduced using the Didù technique. Viewers were allowed to touch the image mounted on the wall while listening to an audio guide developed to guide their touch interpretation of the painting. People who do not have a visual impairment have the option of wearing a mask in order to gain a deeper touch experience. Similarly, the Prado Museum in Madrid also has an exhibit called Touching the Prado, which houses six Didù reproductions of famous works of art by artists such as Leonardo da Vinci, Francisco Goya, and El Greco.” (McMillen 2015, 101).

Didù is one innovative example amongst many that personifies very well what new technologies and new media technologies interfaces can achieve for all audiences. There is no doubt that the implementation of such tools would enhance learning – thanks to sensorially singular designs – and engagement for all audiences.

Thus, the power and the potential that new media technologies have for audience engagement and learning in the cultural institution is irrefutable, and the fact that those technologies can offer pedagogical and experiential solutions for people with disabilities is all the more valuable. The authors of a study, entitled “An Interactive Visualisation Interface for Virtual Museums”, argue that AR (Augmented Reality) and Web3D platforms “have the potential to “minimize the effects of disability”.” (Liarokapis et al. 2004, 1), and propose a prototype for a tool that would use both Web3D and AR “techniques to visualise cultural heritage artefacts for museum environments that is particularly of great benefit to people with special needs.” (Liarokapis et al. 2004, 2). The authors conclude that: “Apart from the various measures that need to be undertaken, environments that use VR techniques can stimulate experiences and facilitate significantly impaired people.” (Liarokapis et al. 2004, 2), as we will see, virtual experience – because of their interactive and immersive nature, and their narrative potential – might contribute to enhancing learning and engagement within cultural institutions and creating more meaningful bonds between individuals and institutions. It seems in this way natural that those experiences, might, for the same reasons and with some adaptations, also have substantial advantages for people with hearing impairments, for example. The authors also stress that such tool could greatly help people who recently had a stroke to “develop skills and recover knowledge that may be partially lost” (Liarokapis et al. 2004, 2)). Likewise, Rebecca McMillen and Frances Alter argue in “Social media, social inclusion, and museum disability access” that social media platforms can also enable some people to overcome disability according to the results of their analyses:

“In some instances, social media even allowed participants to temporarily overcome some of the difficulties and frustrations of their disability. For example, deaf participants could use social media with little limitations, since a number of sites are visual and/or text based. Sites like Facebook now even have captions on their videos, while other social media sites like Instagram are also popular with the deaf community due to the primary use of pictures. New technologies have also made it

easier for the deaf community to communicate, such as HearPlus, which can be linked to social media sites like Facebook and Instagram. The HearPlus app connects directly to a hearing aid and helps to minimize distracting outside noises.” (McMillen and Alter 2017, 121).

This shows, once again, that new media interfaces and tools, thanks to the access that they provide, are exceptionally crucial to help people with special needs to feel more included and meaningfully involved. Those technologies have the potential to significantly reduce the barriers that disabled people might encounter on a daily life, and in a cultural heritage context, those technologies might play a decisive role in the future engagement that this community might have in relation to cultural institutions, which is why museums and galleries should put effort into providing explicit information in terms of programs and services for disabled people

In addition, another study, entitled “Design for all in multimedia guides for museums”, focuses on the possible implementation of a new media technology object that would be able to facilitate the experience of anyone who has a sensory handicap (Ruiz et al. 2011, 1408). The object would offers solutions to every possible situation: “These devices [audio guides] only offer narration of museum contents, which is useful for the blind, however, devices designed according to MGA [Multimedia Guides for All] principles are developed for people with any type of sensory disability, not one specific type [...]” (Ruiz et al. 2011, 1411), this design is particularly exceptional because of the way by which it would aim at allowing anyone with a sensorial disability to experience the content present in an exhibition. In this manner, having one device successfully fulfilling several purposes would perhaps be key for cultural institutions to take tangible action into adopting more inclusive methods on a global scale.

2.3.3 Social inclusion

There is still much to be done in order for cultural institutions to be effectively more inclusive: “Organisations have made great strides in improving their access provisions in recent years; however there are still barriers excluding disabled people. Further improvement can be made to help build a more inclusive arts and cultural sector.” (Shape 2013, 4), and new media technologies can contribute to that, as we saw. However, it is

paramount that cultural institutions privilege endeavours whose components revolve, above all, around inclusion: “Understanding the relationship between social inclusion and accessibility and how they relate to new media is important for museum staff and visitors. Without this knowledge, the educational programs and exhibitions that museum design and implement may be limited in the degree to which they are accessible for all people, not only those with disabilities.” (McMillen 2015, 102). Thus, there is a need for museums and art galleries to ensure that certain tools and endeavours – apart from the tangible practicality and effectiveness of those tools to provide solutions for disabled people – successfully achieve to be inclusive in order not to cause a sense of exclusion among visitors. The desire to feel included within a cultural institution's program prevails over the tools that may be available to disabled people: “To feel included, connected, and be part of the community was central to each participant. The participants involved in this study [the study on the role that social media play in improving access for the disabled] wanted to feel a part of the community and not just look at an art collection.” (McMillen and Alter 2017, 120). It is crucial for disabled people to feel included in the philosophy and program of a cultural institution, and it seems that the only way for a cultural institution to achieve this sense of belonging among this specific audience – and all audiences – is to implement inclusion strategies on an organizational level: “Perhaps the most important theme brought to light by this focus group has little to do with physical barriers, but rather the desire and need of the participants to feel included. When museums adopt holistic and emancipatory organizational practice and behavior, they have the opportunity to become even more accessible and inclusive to all visitors.” (McMillen 2015, 104). Organizational features are, as we saw, the pillars that protect the philosophy of an organization, if each component of this pillar exemplifies the elements that reside at the core of an institution's philosophy, then the institution would probably effectively convey its message thanks to the certain tools, such as new media technologies, for example. In this way, the sense of exclusions that certain audiences might experience in some cases might be overcome if all the organisational departments of a cultural institution put inclusiveness at the core of their endeavours and thinking. For instance, the marketing sector of a cultural institution might achieve that in this manner: “Inclusive thinking should be at the heart of an organization's marketing and communication strategies. This is only achieved if all marketing materials

are routinely provided in accessible formats and marketing strategies include the needs of disabled people.” (Shape 2013, 16), which is something that is also defended in the article dedicated to the role that social media platforms play in terms of social inclusion in a museum setting: “Museums are part of the new connected knowledge society. Museum solutions must be sensitive to this situation and take advantage of ICTs. In this evolution, one should not repeat past mistakes or avoid addressing major problems such as universal accessibility.” (Ruiz et al. 2011, 1414).

Although in this chapter, we are not taking into consideration issues of accessibility in relation to racial, economic, or gender inequalities, we can argue that the potential that new media technologies have in regard to social inclusion and accessibility for people with physical disabilities is undeniable. New media technologies, as we saw, can provide effective solutions for disabled people to experience the content of a cultural institution's exhibition in a comfortable manner. However, there is still much progress to be done in order for cultural to provide fully inclusive settings, and not all cultural institutions have the means to implement efficient strategies to overcome the issue. Nonetheless, the advantages that some new media tools offer to disabled people are many, and it is paramount that cultural institutions be aware of the positive outcomes that new media technologies can achieve in terms of engagement among disabled people and not only, while keeping in mind that those technologies are only the tools to achieve a goal and that inclusion should, above all, be present at the core of the organizational components of a cultural organization. In this way, there is no doubt that new media technologies can, if well-implemented within the cultural institution and if well-directed outside the museum or art gallery, improve learning and enhance engagement among disabled audiences in an efficient manner.

2.4 A shift in the way art is experienced

2.4.1 Towards immersion

We previously shed light on the institutional and educational shifts that new technologies gave rise to, and in this chapter, we will particularly emphasize the experiential changes they generated. In this way, the growing presence of new technologies within society has engendered a shift in the experience that cultural institutions offer to their visitors: “The rapid expansions of media technology, the universal access to the Internet, the continuous online presence in the social media are fundamentally changing the cultural experience. [...] In the entertainment and the new museum era, the issue is no longer whether new media and technologies should be used by museums [...] but how they may be used to develop a richer, deeper and more immersive visitor experience” (Tomiuc 2014, 34), the immersive component of new media technologies, which can be used for engagement enhancement, is the element that dramatically changed museums’ offer in terms of experience. The experiences that museums offer through processes of immersion are sensory-centred, Maggie Brunette argues that: “Immersive experiences that engage the senses create a heightened emotional and cognitive connection that ignites the imagination. In today’s multi-tasking, information-overloaded era of distribution, immersive museum environments offer another compelling advantage. They provide discrete experiences free from external disruptions, which enable the visitor to relate more fully and mindfully to the content at hand.” (Stogner 2011, 119), what the author sets forth here is that multi-sensory immersive experiences created by cultural institutions can act as a refuge from the speed and processes of information dissemination of the external world, which appears rather paradoxical since the apparatuses used to disseminate information in the outside world are similar to the ones used to create immersive microcosms within the museum space. If such experiences really achieve to plunge the visitor into the content created by the institution, and to stimulate one’s senses, emotions and the imagination, then, the result of those experiences could contribute to increasing one’s sense of well-being. In addition, the narrative potential of immersive experiences could also contribute to increasing the visitor’s sense of well-being: “It lures the audience into the narrative of another time and

place, and plunges us into an alternate world in which we forget about the distractions and worries of our daily lives.” (Stogner 2011, 115).

Narrative content is the element that lives at the core of such experiences; it allows immersive technologies to come to life and fulfil their purpose, it is the union of immersive technologies and narration that makes possible the enhancement of the visitor’s engagement and learning experience: “Narrative is a powerful immersive tool in and of itself, particularly when presented in a multi-sensory environment. [...] Immersive storytelling in a museum environment depends on the same concept of “suspension of disbelief” as a good movie.” (Stogner 2011, 119). The concept of “suspension of disbelief” consists of one’s ability to temporarily consider a piece of fiction as being true, which is a phenomenon that allows one to emotionally commit to the piece of fiction in question (Chandler and Munday 2011, 415). Jens Hoffman similarly argues that: “The exhibition can be used to suspend disbelief as one does with a piece of fiction” (Hoffmann 2018, 11), if the concept of suspension of disbelief can be applied to the immersive experiences offered by cultural institutions and lead the audience to fully commit to the narratives of those experiences, then their pedagogical potential is great. Indeed, such immersive narratives have the ability to transmit cultural heritage in a very singular manner: “Surround screen technology, high definition video, and digital audio combine to create powerful immersive experiences that are increasingly used to plunge visitors into the life and times of another environment.” (Stogner 2011, 124), new media technologies allow the creation of immersive experiences whose narrative abilities are powerful. Those immersive apparatuses might allow visitors to travel, for example, to the moment when an artefact was created, they can efficiently introduce the visitor to the historical and aesthetic importance of the artefact in question: “[...] I have created media for several world-touring traveling exhibitions that are excellent examples of narrative-driven immersive experiences. They are designed as experiential stories through which the visitor moves. Multi-sensory media is integrated with designed environments to provide rich contextual connections with artefacts.” (Stogner 2011, 122). As a result, such experiences may undeniably contribute to enhancing the viewer’s learning experience and emotional engagement.

Indeed, Maggie Burnette Stogner states that: “The concept that multi-sensory immersion can be used to engage audiences and heighten emotional experience is not new. It has been used in cultural rites and religious ceremonies for millennia. [...] Many studies have established that multi-sensory immersion increases emotional engagement and that this connection, in turn, creates more profound and memorable experiences” (Stogner 2011, 118-9), in this way, if multi-sensory immersion has been repeatedly used to tell stories in the past, it is only natural that museum might use the same strategy to provide the best experience for their audiences, in particular at a time when such experiences can be easily reproduced thanks to new media technologies: “Twenty-first century media technologies have excellent potential to create immersive storytelling for cultural exhibitions by heightening sensory engagement and by forging deeper cognitive and emotional contextual connections with artifacts and objects. These new immersive techniques can attract more diverse and younger audiences, increase accessibility to cultural experience, enrich visitor engagement lengthen memory retention, and inspire new ways to tell and share cultural stories.” (Stogner 2011, 117). Thus, the positive results that such experiences can give rise to cannot be denied. New media technologies have completely changed the way culture is experienced, they have offered viewers the possibility to go from contemplation to immersion and from passivity to active participation. The fact that those experiences may ease the access to the content created by cultural institutions – by rendering it more accessible through narratives – and the fact that it might, as a result, increase attendance shows that those technologies, by changing the experiential offer, contribute to fundamentally changing the traditional white cube settings and the audiences that it can reach out to.

2.4.2 In the favour of active participation

One of the most important shifts that new media technologies gave rise to in terms of experience is the fact that those technologies often encourage the viewer to take action and become part in the creation of meaning within an exhibition: “They [new technologies] are enabling a substantial change in the role of the visitor from passive viewer to active participant. Their use, like the technology, is nascent. As these technologies evolve, they will enable increasingly meaningful levels of visitor participation and contribution.”

(Stogner 2011, 125). Although not all audience segments are enthusiastic to using those technologies, which seem to appear more attractive to younger audiences (Stogner 2011, 118), it seems crucial for museums to adapt them to their exhibition environment in order to expand their influence: “[...], the focus on specific museum experiences by recognizing the active role of their visitors could raise attendance and enhance the quality of the visit.” (Tomiuc 2014, 41).

This change in the role of the visitor led to an evolution in the relationship between the audience and the cultural institution. Indeed, the interactive experiences that are sometimes offered to visitors prompt them to design their own visit, to manipulate content and sometimes create their own experience and use their abilities to create content – by taking curatorial decisions, for instance. In this case, the visitor becomes a co-creator and an actor who can personify a multitude of roles; as we saw in the Tutankhamun and the Golden Age of the Pharaohs traveling exhibition (2005) that Maggie Burnette Stogner uses as an example, the visitor can “move through the exhibition in the role of the observer, explorer, discoverer, archeologist, and scientist” (Stogner 2011, 122). This phenomenon – giving the audience the possibility to (co-)create meaning – has given rise to a new kind of relationship between the visitor and the cultural institution: “The user, therefore, actively influences the construction of the museum knowledge, structuring a new paradigm for the museum-visitor relationship.” (Vaz et al. 2018, 32), the nature of this relationship seems to be based on collaboration and complementarity. The museum creates content for the visitor, which the visitor might be prompted to use and manipulate to interpret artefacts and create meaning that is complementary to the content provided by the museum. Furthermore, the fact that visitors might be given the freedom to create content and design their own exhibition visits call for a refining of what a curator is and what is his/her role. Anamaria Tomiuc argues that this phenomenon represents a threat to the curator’s status: “Challenging the unique authority of the curator, they invite visitors to actively create their own meaning from the collections [...]” (Tomiuc 2014, 36). However, if we consider a curator to be a person who is an expert in a certain field and a facilitator who should play an important role in education: “While the image of the curator as highly skilled subject specialist persists, there is also the notion, driven by the shift during the 1060s towards the demystification of the art world, that the curator should be an educator.” (George 2005,

12), then the implementation of such endeavours within the museum space should be at the core of curatorial initiatives – because of the educational potential that these experiences can generate – and should be regarded as strategies that instead of impairing the position of the curator, solidifies it.

Moreover, experiences that prompt the active participation of the viewer favour the “learning by doing” methodology, which can lead to impressive results in learning endeavours. Indeed, New media technologies that incite the visitor to play an active role seemingly contribute to enhancing the visitor's learning experience: “[...] interactive projections are being used by museums to transform spatial environment, allowing visitors to interact with them using their body gestures, imagination and making decisions, contributing to improve education while providing new experiences of immersion inside their spaces.” (Vaz et al. 2018, 36). Likewise, methodologies that call for the participation of the visitor, in addition to enhancing learning, offer several advantages to the audience: “Through the use of new media technologies, visitors can tailor their learning experience and character roles according to their interests, needs, and abilities.” (Stogner 2014, 120), in this way, these methods grant an important degree of freedom to the audience in terms of learning, which, one could easily imagine, might be a decisive factor when it comes to accessibility and attracting new audiences in parallel to offering interactive and immersive experiences. Thus, experience seems to be at the core of such learning methods: “Learning is now seen as an active participation of the learner with the environment. This conception of learning has elevated experience [...] to a more important place in the effort to educate. [...] They specialize in the objects representing both culture and nature and, therefore, became central to any educational effort when the focus shifts from the written word to learners’ active participation through interaction with objects.” (Hein 1998, 6), here the author drives our attention so as to how crucial experience and interactivity have become in the implementation of learning initiatives in the museum. It is undeniable that the legitimization of new technologies within the museum space has fortified and enhanced learning in the museum.

2.4.3 A distancing from the object or cultural artefact

The immersive and interactive experiences that cultural institutions offer to their audiences are often available on digital platform and through digital representations that, on many occasions, guide the viewer away from the original artefact. This distancing induced by the digital reproduction of the original is a matter whose implications Walter Benjamin tried to grasp, most specifically in his essay entitled *The Work of Art on the Age of Mechanical Reproduction* (1936). In this work, Benjamin drives our attention to the concept of the “aura”, which he defines in the following manner: “a unique manifestation of a remoteness, however close it may be. Lying back on a summer’s afternoon, gazing at a mountain range on the horizon or watching a branch as it casts its shadow over our reclining limbs, we speak of breathing in the aura of those mountains or that branch.” (Kholeif 2018, 9), although it is a little difficult to precisely understand what the author means by aura in this metaphorical description, it seems that the aura (here, in nature) is defined as something that has a unique quality, as something beautiful that has an autonomous existence and that calls for contemplation, which somehow echoes the Oxford English Dictionary’s definition of the concept: “The distinctive atmosphere or quality that seems to surround and be generated by a person, thing, or place” (Lexico 2020)²⁶. In both instances, we notice a certain similarity with regards to distinctiveness. Later in the essay, Walter Benjamin, more precisely associates the aura to the uniqueness that is more particularly present in traditions and rituals (Benjamin 1936, 10-11). Benjamin also drives our attention to the changes in perception that occurred at different moments in history and states that the perceptual changes that took place at the time when he wrote the essay – mostly due to the practices of photography and the developments in film – “may be understood as a fading aura” (Benjamin 2008, 9). In this way, the fading aura that he mentions is seemingly connected to the infinite technical reproducibility potential of the images produced in photography, for instance. Thus, such reproducibility would impair the uniqueness of the original object or artefact and thus affect the object’s auric quality.

This leads us to question the impact that digital reproductions have had on the original work of art. Although one cannot tangibly prove if digital reproductions undermine the aura of the original work or on the contrary, if it contributes to expanding it,

²⁶ Lexico. 2020. “Aura.” Accessed May 7, 2020. <https://www.lexico.com/en/definition/aura>.

we can assess with certainty that this practice has given rise to a perceptual shift. Indeed, in the case of augmented reality experience, for example: “Augmented virtual reality experiences have the advantage of transcending the physical and temporal enabling visitors to explore historical and archeological sites based on real data” (Stogner 2011, 127), augmented reality consists of adding a digital layer to an original artefact or digital image, it is often used in order to enhance the experience of the visitor and to provide complementary narrative and information with regards to an artefact. The digital layer that is added via augmented reality – which, in order to be experienced, necessitate the use of an electric device, a smartphone, for example – physically leads the viewer’s gaze away from the still original object, hence inducing a perceptual shift. Additionally, Hansen B. N. Mark argues, in *New Philosophy for New Media*, that:

“[...] these three threads will combine to tell the story of a fundamental shift in aesthetic experience from a model dominated by the perception of a self-sufficient object to one focused on the intensities of embodied affectivity. To the extent that this shift involves a turning of sensation away from an “object” and back onto its bodily source, it can be directly correlated with the process of digitization currently well underway in our culture: for if the digital image foregrounds the processural framing of data by the body, what it ultimately yields is less a framed object than an embodied, subjective experience that can only be felt.” (Hansen 2004, 12-13)

The author drives our attention to the fundamental experiential transformations that digital images gave rise to. He sheds light on how digital representations have led to a distancing from the original artefact in favour of experience generating physical responses. The effects that the digitalization of cultural artefacts have engendered has been the subject of great concern, as Sarah Cook argues in *Rethinking Curating*: “Museums have for some time been digitizing images of artworks in their collections and making this documentation available via their Web sites. This practice has led to a great deal of debate on the confusion between the object and the digitized display of an object.” (Graham and Cook 2010, 175). In *Theatre of Exhibition* (2015), Jens Hoffmann argues: “While most online art projects still hang on to the idea of art as object or concept, transferring and translating those

thoughts onto the Internet, the impact the digital world will ultimately have on our understanding of art cannot be underestimated. In many ways the original work of art has become secondary to the image of it.” (Hoffmann 2015, 18), which is explained by the ubiquitous presence of original artworks’ digitalized versions online. Even though the two representations have very different physical components their visual appearance is very similar and it is very difficult to determine if/ how the original work loses value in the conversion process. What interests us here is the experiential and perceptual shifts that digital technologies have brought about. As we saw, new media technologies – through the use of augmented reality, for example – have induced a shift in the viewer’s visual apparatus, hence leading him/ her physically away from the original cultural artefact and leading to an experiential shift that favours the affect, all of whose modifications may contribute to enhancing the viewer’s engagement and learning experience because of the way those experiences can affect the viewer. In this way, the availability of those experiences in the museum space prompts the viewer to physically distance himself/ herself from the original artefact and thus, incites them to favour immersive, interactive and often active experiences over contemplative and passive ones. This may have the effect of leading the viewer away from the original aesthetic features of the artefact but it might also help the viewer have a richer intellectual experience because of the narrative possibilities that new technologies render possible.

New media technologies have dramatically changed the way cultural organisations are organised and the way museum content is produced. They have allowed an expansion of cultural institutions’ presence on digital platforms, which have become vital to the functioning of an institution. In order for those tools to be beneficial to museums and galleries, it is crucial that the philosophy and values of the institution be always reflected in those technological endeavours, which entirely depends on institutional decision-making. In addition, it is crucial that new media technologies initiatives remain complementary – and not the locus of attention – to the original source of meaning-making, the cultural artefact: “It is important to make clear that museum artefacts and themes themselves should always be the focus, no matter what technology is being used to increase the public’s experience.” (Vaz et al.

2018, 45), in order for cultural institutions not to fall into pure entertainment and sensationalism, which would ultimately impair the image of the cultural institution, as well as the conservation and transmission of cultural heritage. Regardless of the potential dangers that new technologies might lead to, we saw that they possess numerous abilities that can be employed to enhance audience engagement, learning experience and critical thinking.

3. Internship Analysis:

In this part, we will first drive our attention towards our case study, which is a Viennese augmented reality application named Artivive. We will use our case study within the scope of this research as a basis to reflect upon the hypotheses previously made with regards to the use of new media technologies for engagement and learning enhancement. We will provide an analysis of Artivive as an edutainment and educational tool and also focus on the effects that it can have when it is used for AR art purposes. We will give contextual information on Artivive, and present the company. After this, we will define the concept of edutainment, and we will critically analyse the use of Artivive for edutainment purposes thanks to specific examples at the Albertina museum, in Vienna. We will evaluate the pedagogical effects that edutainment through Artivive might lead to, and we will give an account of the experiential shifts that it might engender, and analyse the tool's effectivity for audiences with special needs, while reflecting upon the hypothesis made in our conceptual framework. Then, we will drive our attention towards the use of Artivive as a tool for artists, and as a tool for AR art. We will define AR art, and use the AR manifesto in order to better understand the movement's characteristics, we will analyse the components of two AR artworks – which were exhibited at Galerie Rudolf Leeb – and delve into the experiential effects that they can have on the audience. Moreover, we will provide a more practical analysis of Galerie Rudolf Leeb, which is where the internship was conducted. We will first focus on the gallery's organisational features and institutional components, while reflecting on how the gallery itself has been adapting to the use of new media technologies and how it has been using them to expand its influence. We will shed light on the gallery's philosophy and goals, we will put the emphasis on the gallery's innovative features, we will describe the gallery's program and evaluate its relevance to contemporary aesthetic, societal and political issues, we will bring forth the gallery's marketing strategies and analyse their pertinence in relation to the object of our research, we will an account of the gallery's inclusive potential, and provide a theoretical audience segmentation model for the art gallery. Finally, we will give a detailed account of all the tasks and projects that were carried out during the four-month internship.

3.1 Case Study: Artivive, a Promising Augmented Reality Tool?

3.1.1 Introduction

Artivive is a Viennese Augmented Reality (AR) art platform that was created by Sergiu Ardelean and Codin Popescu in 2017, and that aims at “bring[ing] art to life” (Artivive 2018)²⁷. The platform is comprised of Bridge, which is the tool that allows the creation of AR through the Artivive platform, and the Artivive application, which permits users to experience the AR artworks created with Bridge on smartphones and tablets for free. The creators of this platform wanted to conceive an intuitive AR tool that would allow anyone, regardless of their technical knowledge in the field, to work with AR in an artistic context (Artivive 2018)²⁸. Artivive has, as a result, successfully made AR art available in numerous cultural institutions, for artists, students and creative people in Austria and around the world (Artivive 2018)²⁹. In parallel to this, one of the most important specificities that reside at the core of Artivive’s vision is that the platform aims at drawing a bridge between the digital and the analogue and allows the creation of exciting narratives thanks to its digital layers (Artivive 2018)³⁰. Artivive’s founders aimed at creating a platform that would enhance the viewers’ emotional and experiential involvement (Artivive 2018)³¹. Ever since its inception, the platform has growingly gained influence on an international level, it has allowed artists, students and creative people to fulfil their creative drive through AR, and it has permitted some museums to use the platform for edutainment, to enrich their program and to provide a new form of experience to their visitors (Artivive 2018)³². In this chapter, we will first discuss Artivive’s contribution to edutainment and educational endeavours in museums and art galleries in Austria. Then, we

27 Artivive. 2018. “Press.” About. Accessed March 16th, 2020. <https://presskithero.com/p/artivive/>.

28 Artivive. 2018. “Press.” About. Accessed March 16th, 2020. <https://presskithero.com/p/artivive/>.

29 Artivive. 2018. “Press.” About. Accessed March 16th, 2020. <https://presskithero.com/p/artivive/>.

30 Artivive. 2018. “Case Studies.” Accessed March 16th, 2020. <https://artivive.com/>.

31 Artivive. 2018. “Press.” About. Accessed March 16th, 2020. <https://presskithero.com/p/artivive/>.

32 Artivive. 2018. “Press.” About. Accessed March 16th, 2020. <https://presskithero.com/p/artivive/>.

will drive our attention towards the use of Artivive by artists in cultural institutions; we will define AR art and put the highlight on the experiential shifts that AR art has engendered.

3.1.2 Artivive, education & edutainment:

As we previously saw, the implementation of new technologies in museums and cultural institutions has led to changes in the way visitors experience and interpret the information disseminated by those entities (Balloffet, Courvoisier and Lagier 2014, 4). Indeed, some museums – such as the Albertina, one of Vienna’s Modern and Contemporary Art museums – have growingly worked on using new technologies to render their educational program more interactive, immersive and playful. As we previously mentioned, the combination of education and entertainment gave birth to the portmanteau word of Edutainment (Balloffet, Courvoisier and Lagier 2014, 5). The principle of Edutainment – making the experience of learning more enjoyable through interactive exchange between the viewer and the object – has been used as a pedagogic tool by cultural institutions and has seemingly grown as a trend in this sector (Balloffet, Courvoisier and Lagier 2014, 5). In this chapter, we will focus on the implications that this particular AR tool has had on the way art is perceived in a context of edutainment, and the changes that it induced within and beyond the walls of the museum and art gallery, and on an experiential level.

Artivive offers different subscriptions for museums and galleries that want to “turn exhibitions into an extended experience” (Artivive 2018)³³. An institution can choose from three subscriptions – Pro, Light and All Inclusive –, two of which offer the institution guidance and professional help for the creation of the AR content (Artivive 2018)³⁴. In order to keep the content created thanks to Bridge and to maintain its accessibility, the institution must pay a monthly fee – varying from 45 euros to 75 euros and more – for each

33 Artivive. 2018. “Museum & Gallery Account” Accessed March 16th, 2020. <https://artivive.com/register-museums/>.

34 Artivive. 2018. “Museum & Gallery Account” Accessed March 16th, 2020. <https://artivive.com/register-museums/>.

artwork that has been augmented through Artivive (Artivive 2018)³⁵. In this way, the tool is not necessarily available to all cultural institutions since it represents an investment that, in theory, only more prosperous institutions could afford. Indeed, from the case studies that Artivive makes available on its Youtube channel – it is the sole platform available to see those case studies –, we can see that the institutions that used AR on already-existing artworks for the purpose of Edutainment with Artivive are already well-established museums such as Belvedere 21 – dedicated to contemporary art – and Albertina, which are both located in Vienna (Youtube 2020)³⁶. Likewise, it is important to note that the Albertina museum, for instance, has seemingly never made space in its program to exhibit the works of artists specialised in AR art, in this case AR was principally seen as a tool for Edutainment and not as an artistic practice. In order to fully comprehend how the concept of Edutainment works with Artivive, we will provide a comprehensive analysis of three AR examples – each with different Edutainment methods and criteria – from the permanent collection of the Albertina Museum, *Monet to Picasso*, in Vienna.

35 Artivive. 2018. “Museum & Gallery Account” Accessed March 16th, 2020.
<https://artivive.com/register-museums/>.

36 Youtube. 2020. “Artivive App.” Videos. Accessed March 18, 2020.
<https://www.youtube.com/channel/UC49bxi6XJYDedcIHZcoq2A/videos>.



Figure 1: Paul Delvaux, *Landscape with Lanterns*. 1958. Oil on Canvas. 121,5x159 cm. The Albertina Museum. The Batliner Collection. Vienna, Austria.

In order to fully follow those analyses, we believe that it would be useful and relevant for the reader to install the Artivive application on their smartphone or tablet in order to experience the AR edutainment examples that are available from the visual reproductions present in this chapter. However, it is simply a suggestion since one should be able to follow the analyses without experiencing the AR.

We will first drive our attention to an artwork that was created by surrealist painter Paul Delvaux in 1958. The composition of the artwork, entitled *Landscape with Lanterns*, drives our attention to the central figure standing in the foreground of the painting, a woman with a black dress facing the horizon. The landscape depicted on the canvas is almost fully deserted; we can only distinguish a few nude figures and two figures dressed in white carrying someone on a stretcher in the background. The emptiness that dominates the scenery and the incongruous associations made between all the elements present in the painting make the atmosphere of the latter very arcane and the narrativity of the composition rather non-linear and open to interpretation. In this way, it is rather difficult to fully comprehend what is happening in the painting without some contextual information. Cultural institutions often, and more traditionally, provide complementary information in

textual or audio formats. In this case, the Albertina Museum used the means of Artivive's AR platform to mediate contextual content. The visitor is only required to download the Artivive application on their smartphone, to open it, allow it to access their device's camera and position their smartphone in direction of the artwork in order to experience the AR animation. The AR experience with Artivive starts instantly, as soon as the application recognises the features of the image that was augmented through the platform. The AR starts working when the camera identifies the visual criteria of a given artwork, which entails that it does not make a difference between – for example – the original piece and a digital reproduction. In this manner, one could perfectly experience the AR that the Albertina museum created for Paul Delvaux's artwork from the representation present above, which is a matter that we will come back to later in this report.

The digital layer added on Delvaux's work allows the viewer to experience a multisensory form of Edutainment; there is a narrator verbally giving us some information on the content of the painting, a piano playing in the background and the AR complementing the narrative with visual effects. Indeed, the creator (s) of this AR made the figure in the middle of the painting move slowly on the pathway towards the horizon, it made the characters in the background move from left to right and made all the lanterns flicker. The combination of all of these elements is exactly what makes the educational side of this form of information dissemination entertaining. Here, we notice that no external visual element was added to the AR, the author(s) of the created digital layer organized the AR around the elements already present in the painting and simply brought life to them. While the experience provided by the AR assuredly fulfils Edutainment criteria – it is at the same time interactive, pleasing and informative –, the content of the experience might also contribute to reducing one's imaginative freedom. Indeed, the essence of the painting is in itself rather subjective and unsettling – which is something that characterizes surrealist works of art – thus, adding a layer of objectivity to the artwork would, on the one hand, enhance the sensorial experience of the viewer and reduce, on the other hand, their capacity for imagination and move them away from the original artwork. Hence, this leads us to question the consequences of introducing such technologies in an exhibition space. We will now drive our attention to the second example in order to pursue our analysis.



Figure 2: Claude Monet, *House among the Roses*. 1925. Oil on canvas. 92.3 x 73.3 cm. The Albertina Museum. The Batliner Collection. Vienna, Austria

Claude Monet's *House among the Roses* – created in 1925 – gives us a glimpse into the artist's garden and house in Giverny, France. The canvas depicts multifarious flowers and plants whose luxuriance largely predominates over the other elements portrayed in composition; one can only see a fragment of Monet's house in the background with two people at the window and a little piece of sky. Here, the impressionist work – because of the evasiveness of the brushstrokes – leans towards abstraction. In this case, the AR layer that was added to Monet's piece thanks to the Artivive tool leads the viewer's gaze from the artwork in itself towards a photographic representation of the painter's house. The experience that the AR generates here is also multisensory, just like it is the case with all the examples we will give in this section; the narrative voice is also present here to give the viewer some contextual information, there is also some peaceful music playing to accompany the narration. The main element that makes this virtual edutainment piece differ from Delvaux's is the fact that there is a parallel drawn from the representation of the landscape that was made through the eyes of the painter to a representation made through the lens of a camera. The experience starts with an overview of the painting, which is then

replaced by the photographic representation of the same scenery, on which the creator of the AR applied a zoom in and zoom out technique, to finally be brought back to Monet's painting. Thus, the Edutainment AR in in this case draws a clear line between fiction and reality, the initial artwork endures a metamorphosis, and as a result, the viewer spends more time observing the photographic representation rather than the actual artwork during the few seconds that the experience lasts. The AR distances the viewer from the aesthetic features of the painting, which shows that the immersive Edutainment experience here dominates over the object itself.

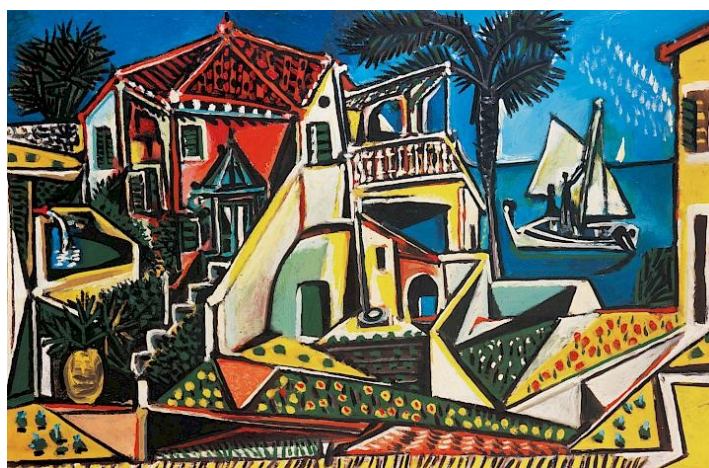


Figure 3: Pablo Picasso, *Mediterranean Landscape*. 1952. Oil on canvas. 81 x 125 cm. The Batliner Collection. Vienna, Austria.

Pablo Picasso's *Mediterranean Landscape* depicts a colourful house painted in a cubist style – the architecture is filled with angular forms – surrounded by palm trees, plants and various flowers. The house dominates the foreground of the painting and seems to be hiding what would probably be the Mediterranean sea, which one can perceive in the top right corner of the canvas's background. We can also notice two people sailing on a boat on the Mediterranean sea in this section of the artwork. The narrator speaking in the AR layer gives information on the nature of the house – it was Picasso's villa in the South of France – and on the composition of the painting. Like in all our examples, one can hear some music playing to accompany the narrator's explanation, which seems to enhance the Edutainment experience and to reinforce the multisensory nature of the AR. Here, the

creator of the AR also used the Artivive tool to add novel elements to the original painting with the aim of incorporating humour to the experience. Indeed, one can see a shirtless figure in black and white resembling Pablo Picasso appearing at one of the house's windows, to which a speech bubble was associated and on which the following text surfaced: "My wife leaves a painter like me!". Then, a black and white figure of Françoise Gilot – who was his partner at the time – appears at the opposite window and answers in another speech bubble: "For you women are either gods or a doormat!!!". In this way, the visual narrative added here contributes to illustrating the narrator's explanations in a light and humoristic manner. Here, the AR seems to fully fulfil the purposes of edutainment; the experience is at the same time informative, entertaining and fun. The pedagogical tool has the potential to allow cultural institutions to revisit pieces of art that have been shown and exhibited over and over again throughout decades and that are consequently well incorporated into our visual culture, and to generate a new form of excitement with regards to those artworks or art movements. In other words, it allows institutions, such as the Albertina museum, to revisit content by redirecting this content towards experiential pedagogy. Such practice, which, as we saw, seems to favour immersion over contemplation, inevitably prompts viewers to detach themselves from the object of art to immerse themselves into the experience(s) provided by the cultural institution.

In this way, the three examples listed above gave us a fair idea of how new technologies and more specifically here, Artivive, can be used for Edutainment initiatives in cultural institutions. Each example exploited different techniques and successfully exemplified what a well-balanced form of digital Edutainment – between education and entertainment – can achieve. Indeed, the core focus of each example remains on educational content – provided by the narrative voice – over entertainment, which is, according to one of the interviewed professionals in "From Museum to Amusement Park: The Opportunities and Risks of Edutainment", key to keeping visitors critically involved in the content of an exhibition (Balloffet, Courvoisier and Lagier 2014, 10). Likewise, the content of the AR in this case helps complementing curatorial endeavours, since it introduces new narratives to the content of an exhibition. The narrative abilities of the AR examples highlighted here are indisputable, which very well echoes and reinforces the hypothesis previously made in relation to the use of new media technologies to build

narratives that might be able to enhance the viewer's engagement in the content in question and to reinforce learning abilities. Indeed, we saw that new media technologies' narrative capabilities – thanks to processes of immersion and to the interactive nature of those technologies – can effectively contribute to providing perhaps richer and more memorable experiences for the audience (Stogner 2011, 119), and as result, improve learning in cultural institutions, improve the transmission of knowledge, and the conservation and dissemination of cultural heritage, which should be, as it is stated in “ICOM Code of Ethics for Museums” (2017), one of cultural institutions' most important responsibilities and goals. In addition, we also saw that immersive experiences can lead the viewer away from the reality and from the inconveniences of everyday life, hence contributing to generating a sense of well-being in the viewer's mind (Stogner 2011, 119). We also saw that new media technologies, namely AR experiences, can be used to explore historical sites, otherwise not possible (Stogner 2011, 127), and we would argue that it is exactly this transcendency – from the physical to the virtual world – and the narratives present in those experiences – which might lead to the “suspension of disbelief” state, as we previously discussed – that might lead to more engaging content, to contribute to creating stronger bonds between the audience and the institution, and to enhancing learning and the acquisition of knowledge in the museum or art gallery. On the basis of the examples taken from the Albertina Museum, we would argue Artivive for edutainment confirms, in this case, the hypotheses that we made in this regard. In those instances, the AR experiences lead the viewers away from the physical world to bring them to interactive and immersive virtual narratives that transport them into different temporal dimensions and historical contexts. It is rather difficult to assess if those experiences contributed to improving the audience's sense of well-being, but we would argue that it certainly, because of all the factors cited above, contribute to successfully enhancing audience engagement and learning.

However, and as we previously mentioned, an inappropriate use of this digital platform for Edutainment would shift the focus from education to entertainment, would have negative repercussions on the object concerned, on the curatorial endeavours of the exhibition and on the image of the cultural institution as a whole, which is a concern that

was also expressed by most of the interviewed professionals in the study previously mentioned (Balloffet, Courvoisier and Lagier 2014, 11).

Moreover, the Artivive tool, used in a context of edutainment, might also, on a certain level contributing to enhancing the learning experience of people with certain disabilities. Indeed, we previously saw that AR could potentially be beneficial to people who have lost abilities due to strokes, and help them “recover knowledge that may be partially lost.” (Liarokapis et al. 2004, 2). However, no tangible study has been conducted to prove that the Artivive tool would have such an effect of people who suffered from a stroke, and further quantitative research would be necessary to inspect this phenomenon and verify this assumption. Likewise, it would be impossible for people with hearing impairments to fully experience the content provided by the AR tools, since there is no subtitles or sign language captions available in the experiences provided by the AR tool in the examples that we focused on. In this case, a person with hearing impairment could only experience the visual narratives provided by the AR tool, which might, on a certain level add semantic information to the experience and in some level, contribute to enhancing the person’s experience and engagement. Furthermore, Artivive for edutainment, might also be beneficial to people with visual impairments, but only on a certain level. In this case, the AR would only contribute to providing, like an audioguide, audio information on the content of a specific artwork, the person would not be able to experience the visual components of the AR, since no additional audio tool is provided to describe the visual narratives present in the experience. In the same manner, people with visual impairment would need guidance from a person or a tool to warn them when a specific piece offers the AR edutainment experience. While it is undeniable that Artivive for edutainment might also enhance the learning experience and engagement of people with special needs, we will argue that the tool was probably not created in a design-for-all state of mind. The tool would have the potential to provide more inclusive features, but much work remains to be done in order to achieve a more inclusive design.

Nonetheless, Artivive for Edutainment seems to globally succeed in providing the audience exciting, fun and engaging content. The digital tool might, as a result of its narrative capabilities, contribute to enhancing learning in the museum and to providing a richer experience to the audience, as we previously discussed.

In parallel, we noticed that in this context Artivive drove the viewer away from the cultural artefact – or the object. This distancing is, in a first place, physical; the AR provided by Artivive is handheld, which means that the viewer needs to use his or her smartphone and place it between themselves and the artwork in order to experience the AR. This creates a barrier between the viewer and the object and orientates the gaze of the viewer to the digital content performed on the smartphone rather than the artwork itself. As a result, this physical distancing leads to obscuring the aesthetic features of the original, exhibited in a physical space, and to replacing its authentic features by a digital representation of the object seen through the lenses of technology. Thus, the AR experience revolves around a digital reproduction of the original, which makes it difficult for the viewer to get a sense of the physical implications of the original object, since it is obscured by the digital apparatus. The implication that this factor has is that it shifts the locus of attention from the original object to the technological device. This shift also drives the viewer away from experiencing the artwork in a contemplative manner; the viewer is instead brought to participate in a stimulating experience. The viewer is led to detach himself/herself from the analogue and to concentrate his/her attention to a digital representation that has the specificity of awakening the senses. As we saw, Hansen B. N. Mark argues in *New Philosophy for New Media*, the digitalization of art introduced a perceptual shift. The author puts the highlight on the way digitization changed the way we experience art, he defends the idea that it made the viewer's experience shift from the object to orientate itself towards the body (Hansen 2004, 12-13). Although, in this case we are not directly confronted to digital art but to a digital piece of Edutainment added on a piece of art, we will argue that this theory could be applied to Artivive's AR Edutainment endeavours in the same manner. Indeed, by nature, the Edutainment experience provided by the platform leads the viewer away from the object, as we mentioned previously, and it brings the viewer to experience the AR on a multisensory level through a technological device. The digital device causes a perceptual change and prompts physical responses – the viewer must control his/her device, the viewer is also stimulated by the sounds and images generated by the AR tool.

Indeed, in this process, the viewer becomes an active agent in the dialogue between himself and the content; the viewer must initiate a movement and activate a device – which she/he must hold – in order to proceed with the experience. Oliver Grau, in “Images (R)-Evolution: Media Arts Complex Imagery Challenging Humanities and Our Institutions of Cultural Memory”, states the following: “The more open the construction of the artwork’s system, the more the creative dimension of the work moves towards the normally passive beholder, who is transformed into a player and can select from a multitude of information and aesthetic expressions. [...] On the other side, the previously perhaps critically distanced relationship towards the object [...] changes now towards a field of participative aesthetic experience.” (Grau 2014, 76), although the author does not make direct reference to digital edutainment tools in this passage, we can draw parallels between his description and the edutainment experience that Artivive can provide. In this case, the AR could be seen a system that revolves around its origin, the artwork, which prompts the viewer to become a player and an actor in the creation of meaning. As a result, the AR experience prompts to viewer to pass from a passive to an active state in a setting that traditionally favours contemplation over immersion (Paul 2008, 56). Thus, in comparison to other educational tools – such as audioguides – and means of information dissemination present in traditional cultural institutions – such as texts – the Artivive tool allows the viewer to assimilate knowledge in a novel manner. Although this means of learning physically distances the viewer from the original artwork and induces changes in perception, the tool does allow the viewer to actively engage with the content of the AR, which makes the experience of learning in a museum more accessible and enjoyable – as we proved with the examples listed above. In addition, one is free to use the tool or not; visitors who generally prefer to original artworks without any added complementary digital layer are free to do so, the AR layer’s existence is independent from the original artwork. As it has been argued, such educational propositions allow the viewer to freely create his/her own experience (Mencarelli, Puhl and Marteaux 2007, 10); in this case the viewer can select and choose from the AR edutainment experience that the museum made available to its visitors.

Artivive has also been used for edutainment purposes in the Himalayas Museum in Shanghai and at the Belvedere museum in Vienna (Youtube 2020)³⁷. In this way, the successful incorporation of the Artivive tool in those museums – for Edutainment – shows that more and more traditional cultural institutions believe in the educational power that new technologies can have on the audience. In the case studies videos that Artivive makes available, we notice that the AR allows viewers to create a sense of shared experience – each person can activate the AR on their smartphone simultaneously from other users and they can interact with one another during the experience, which might contribute to the co-creation of meaning. Indeed, and as we previously stated before, the interactive nature of those experiences might lead viewers to, perhaps more easily, converse with one another. And these exchanges of ideas and opinions might, as a result, lead to the creation and co-creation – since the museum’s content is the starting point of such dialogue – of singular ideas and new knowledge within the cultural institution. The introduction of such tools in museums drastically changes the landscape of its traditional setting. Indeed, with Artivive people are encouraged to physically interact with the content of an exhibition, to move, to talk and to share experiences, which makes the museum space more welcoming, and perhaps more accessible for children, for example. Thus, more and more cultural institutions tend to favour shared experiences in their program (Mencarelli, Puhl and Marteaux 2007, 4), which could potentially contribute to reaching out to new audience segments and build loyalty. However, it is rather difficult to measure the impact that Artivive has had in terms of attendance and customer loyalty; no tangible study has been made on the subject.

In addition, the AR that museums offer through Artivive can transcend the walls of the museum. As we previously saw, it is possible to experience the AR from a reproduction of the original artwork, that is to say that the device’s visual recognition program does not make the difference between the authentic piece and a digital reproduction. This takes the AR experience away from the context of the museum, which is something that the Albertina museum has exploited for several purposes. On the one hand, the Albertina museum used the AR tool to respond to the current worldwide COVID-19 outbreak; the

37 Youtube. 2020. “Artivive App.” Videos. Accessed March 18, 2020. <https://www.youtube.com/channel/UC49bxi6XJYDedcIHZzcoq2A/videos>.

museum was led to temporarily close down and took the initiative to make the artworks – available through Artivive – accessible on the Artivive website from their own website (Artivive 2020)³⁸. In this case, the Albertina museum used the AR tool as an original way to maintain a presence for its audience online, which shows that the museum is willing to make the experience explicitly and purposefully available to anyone and outside the museum and that technology has been a great tool to responding to such crises. The Albertina museum also seemingly used the tool for marketing purposes; Artivive advertised that the AR application could also be used on the products available in the shop of the Albertina (Youtube 2020)³⁹ – since the visual recognition doesn't make a difference between the original and a reproduction. This implies that the AR tool, in this instance, is perhaps more considered as a commodity – used to generate revenue – than as a pedagogic tool. In this case, the original object's pedagogic value is expended and retained thanks to the reproduced object, whose primary purpose is to generate revenue for the sustainability of the museum. The relationship between art and commodity has been the object of much debate, and it has often been argued, perhaps unjustly, that both factors were not compatible and that commodifying art was detrimental to the value of art (Walker 1987, 26). However, here we are only bringing our attention so as to how the transfer of the AR experience from the original artwork to the commodified reproduction of the original object might have altered and changed the function of the object in question, without any speculation leading towards the assumption that art should not be commodified.

In parallel to this, It is interesting to note that the artists or specialists that created the AR are not mentioned, while they do create visual content, generate meaning and become authors in this process. Likewise, we should emphasize that the program of museums such a the Albertina still principally – if not solely – revolves around artists who work with media that are commonly accepted in the art world – painting, photography, video –; artists who specialize in more recent media are not exhibited. This might lead to the conclusion that museums tend to accept new technologies as tools for knowledge dissemination and

38 Artivive. 2020. “Albertina masterpieces at your home.” Accessed May 20th, 2020. <https://artivive.com/albertina/>.

39 Youtube. 2020. “Augmented Reality Art The Albertina Museum's Shop!.” Accessed March 18, 2020. <https://www.youtube.com/watch?v=rpWNYOOROSY>.

experiential endeavours but not as artistic practices. It demonstrates that museums, on a general basis, are not so willing to include new media art in their program, which is an issue that is seemingly very present in the art world (Cook 2008, 30).

Nonetheless, it is undeniable that Artivive is a promising and efficient tool for edutainment and more generally, educational purposes. The museum does not need to install any kind of technological devices or to connect network branches within the exhibition space in order to make the AR available to the audience, which makes it very easy for cultural institutions to use the tool. Likewise, Artivive's AR tool is very intuitive and easy to use, which means that anyone would potentially be able to create a piece of AR for the institution's educational program. Thus, Artivive allowed the Albertina museum to create engaging, fun and informative experiences for its audiences, which it did by using different techniques and without obscuring the crucial educational components that must be present in edutainment. The introduction of AR in the Albertina museum greatly changed the traditional landscape of a cultural institution, as Christiane Paul argued: "The ongoing developments in digital and information technologies will affect the nature and structure of arts organizations and institutions in the coming decades and change the role of "art spaces" in the broadcast sense." (Paul 2008, 1-2), which is something that the Albertina museum – amongst others – achieved at doing with Artivive. The tool drastically led to changes in the way people experience art in the museum space and in the way they interact with the artwork, in the museum and with one another. Hence, prompting the audience to share experience and become actors of their own experience. Such experience consequently led viewers physically away from the cultural artefact and from contemplating the original piece, which also changes the way museums are perceived: "Museums seem to be perceived less as pure storehouses of objects and gatekeepers of the history of art and more as sites of engagement and "edutainment." (Cook 2008, 28). Those shifts could contribute to changing one's perception of the museum as a sacred place, and as a result, to making art available to more people, which is a goal that should remain at the core of any cultural institution's gestures, since it is those institutions' duty to help shaping future minds and critically engage people with regards to heritage and contemporary issues. In order to engage with its audience, it is also paramount for an institution, as we previously argued, to adapt its means of information dissemination to its time and to make

sure that those technologies do not obscure the essence of an artwork or an exhibition and achieve to intellectually engage the audience, which is a goal that the Artivive tool also has the potential to reach.

In this way, Artivive is a new media technology tool that, because of its interactive and narrative potential, has undoubtedly contributed to significantly enhancing the viewer's engagement and learning experience in a more or less inclusive manner within the museum space while keeping the focus on education and the historical features of the artefacts.

3.1.3 Artivive and Augmented Reality art in cultural institutions:

Galerie Rudolf Leeb – at the time ARCC•Art and the gallery in which we conducted our internship – is one of the first galleries that exhibited the works of artists who used Artivive at the core of their art. The exhibition took place in 2017 – the year that Artivive was created –, and displayed the AR works of Litto and other artists who did not necessarily use the medium of AR. Litto is a Viennese artist who entirely focuses on digital media and who aims at exploring the possibilities that digital platforms have to offer (Galerie Rudolf Leeb 2020)⁴⁰.

Ever since its inception, the Artivive company has kept flourishing on a national and on an international level; the platform has been solicited by cultural institutions professionals and/or artists in Vienna, Tel Aviv, Austin, San Francisco, Weimar, Shanghai and in other notable locations. Thus, the platform has gained international recognition in a very short time span and its influence amongst artists, students, cultural institutions and creative enterprises will undoubtedly continue to bloom and contribute to dramatically changing the way we experience and interpret art.

In this part, we will drive our attention to Artivive in a context of AR art. We will define AR art and identify its characteristics while referring to artworks that were created through Artivive and shed light on phenomena that it could give rise to.

Augmented Reality art can be regarded as a New Media art form; it is a digital medium whose technology can still be regarded as novel and that is growingly becoming

40 Galerie Rudolf Leeb. 2020. "Litto." Accessed March 29, 2020.
<https://www.galerierudolfleeb.at/collections/litto>.

more and more present in cultural institutions. In this way, AR is a medium that emerged rather recently (Geroimenko 2014, vii) and that, because of its novelty, has not yet given rise to much research and analyses in the field of culture studies. The first collective of artists who used AR, Manifest.AR, published the *AR Art Manifesto* in 2011 (Geroimenko 2014, vii-ix), which we will use as a basis for our analysis and whose principles will be compared to some examples of AR artworks and projects created with Artivive.

The AR art manifesto brings out attention to the fact that the technology and tools residing at the core of AR art allows the union of the physical and the virtual realms, thus giving way to the creation of a “new In-Between Space” that favours a dialogue between the two worlds (Geroimenko 2014, viii). The authors of the manifesto put the emphasis on the eternal nature of AR art and on the fact that its presence will become pervasive in our society and infiltrate our homes: “Standing firmly in the Real, we expand the influence of the Virtual, integrating and mapping it onto the World around us. Objects, banal By-Products, Ghost Imagery and Radical Events will co-exist in our Private Homes and in our Public Spaces.” (Geroimenko 2014, viii), while also challenging the foundations of traditional cultural institutions: “With AR we install, revise, permeate, simulate, expose, decorate, crack, infest and unmask Public Institutions, Identities and Objects previously held by Elite Purveyors of Public and Artistic Policy in the so-called Physical Real.” (Geroimenko 2014, viii). AR art must have, in addition, the specificity of being “Against the Spectacle” and, in opposition to the kind of spectator involvement that the spectacle is said to lead to – passivity –, call for “Total Participation” (Geroimenko 2014, ix).



Figure 4: Litto, *Lying Act*. 2020. Oil and acrylic on canvas. 100 cm x 80 cm.

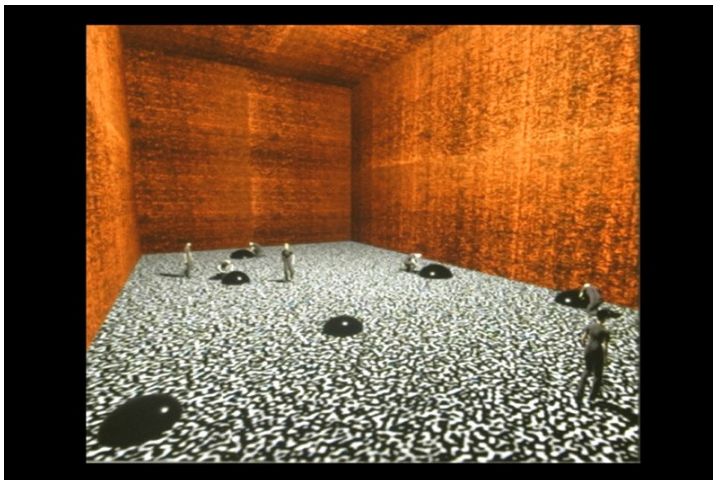


Figure 5: Maximiliane Leni Armann, *Human Doing_on/off*. 2019. Inkjet Print, Augmented Reality. 40 x 60 cm.

The liminal nature of AR art, that is to say the fact that it is able to create a dimension of its own oscillating between the real and the virtual, is something that was already salient in the edutainment AR endeavours that we mentioned previously. In this context the AR allowed the creation of a dialogue between the original object and its virtual representation in an alternate space, that concretises itself in the mind of the active viewer during the

experience. Indeed, AR “augments the enhances the Real” through the virtual (Geroimenko 2014, viii), and this material metamorphosis is what characterises the liminality of AR. Litto’s *Lying Act* and Maximiliane Leni Armann’s *Human Doing_on/off* also exemplify this theory of liminality; although Litto’s work’s AR layer does not contain much of a narration in comparison to Armann’s, the materiality and virtuality of both artworks are interdependent. The materiality of each artwork allows its virtual counterpart to develop and to comment upon the former, and the interdependence and the merging taking place between the two is what gives way to the liminal space. In this way, the in-between place that is mentioned in the AR art manifesto is a criterion that seems to be a condition to the existence of the practice of AR, as we saw with all the examples of AR with Artivive.

In addition, the authors of the manifesto foresaw that AR art would become ubiquitous in our daily lives, both in the private and public spheres, which is a criterion that appears to be rather relevant here. Artivive is tool whose technology and influence is slowly conquering new minds and territories; the tool was used by the Bauhaus University in Weimar for one of the school’s PORT magazines (Youtube 2020)⁴¹, and the Volksoper in Vienna used the application in the theatre’s program to advertise one of their plays (Youtube 2020)⁴². In other words, the tool can be used on any material that has a link, be it very small, with art or the creative industries, hence allowing it to potentially be present anywhere. Likewise, one can easily bring AR art at home; of course, one can literally bring AR art home if one decides to purchase an AR art piece but since Artivive’s AR experience is not restricted to the original piece, one can easily experience it at home from their technological devices, from postal cards – for instance the ones marketed by the Albertina museum, as we previously saw – or other supports giving access to a representation of a work that has been used for AR purposes. In this case, the ubiquitous potential of AR art made possible through Artivive is clearly palpable. It seems evident – as the manifesto predicted – that the incorporation of AR art in institutions and on two-dimensional visuals will only grow and become more invasive since it is a medium that is relevant to the

41 Youtube. 2020. “Amazing Augmented Reality Magazine – PORT.” Accessed March 18, 2020. <https://www.youtube.com/watch?v=jrgBYNTBwi8>.

42 Youtube. 2020. “Spooky Augmented Reality Program – Volksoper Vienna.” Accessed March 29, 2020. <https://www.youtube.com/watch?v=8AbJZ4lh9L0>.

society in which we live in and that can be used for multifarious purposes and in multiple contexts.

The emergence of this new medium and art practice has undoubtedly already led to changes in art institutions. As we saw, it is changing the way art can be learned – through edutainment – and the way art can be experienced in traditional institutions. It has also brought a shift in the way the audience acts in a museum, hence challenging the more traditional social codes that one is expected to adopt in the setting of a traditional institution, which could potentially render art accessible to more people. As it is stated in the manifesto, AR art has the potential to shake the foundations of institutions that are monitored by elitist standards.

It is also crucial to note that, based on our analysis of AR art, this art form calls for the viewer's participation, which is in utter contrast with the physical implications that contemplation engenders. The AR experience does not exist without the viewer actively participating in its initiation, AR art relies upon the viewer's willingness to pursue the experience. According to the manifesto, AR art "is There and can be Found – if you Seek it" (Geroimenko 2014, ix). The virtual layer of the AR artwork is subtly concealed behind its physical support. AR art is not a medium whose features are clearly apparent, one needs to be given information on the nature of the artwork in order to understand what art form they are confronted to, which museums and cultural institutions do by adding Artivive's "A" symbol next to the artwork. In this way, the growing ubiquity of AR art is at the same time palpable and impalpable, since its presence is concealed behind the physicality of the real world and one needs guidance and to become active in order to discover it.

As a result, we can see that the AR that has been created thanks to Artivive illustrates some of the most important principles highlighted by the authors of the AR art manifesto. However, it seems that the growing ubiquity of AR as a tool could contribute to blurring the boundaries between art practices and products, which could have damaging effects on the way AR art is perceived in cultural institutions. In parallel to this, AR art could also contribute to rendering physical artworks, and the medium that they are composed of, obsolete. Litto's *Lying Act*'s physical layer is composed of acrylic paint, a rather traditional medium, whose physical dimension is almost completely obscured by the AR layer.

Likewise, within the scope of Artivive, we noticed that the criteria associated to AR art and what AR edutainment could overlap. If both artists and cultural institutions use AR in different contexts, it might appear confusing for the audience to separate AR art from AR educational experiences, for example. Nonetheless, it is clear that the experiential changes that AR art has been inducing might have contributed to enhancing the viewer's engagement. Indeed, the viewer must, instead of taken the role of a passive agent within the exhibition space, actively participate and collaborate in order to experience the artwork, which may lead to a richer experience. Moreover, the nature of the experiences that it offers is immersive and focuses on the senses, which may also contribute to enhancing the viewer's (emotional) engagement, as we previously argued.

3.1.4 Conclusion

Artivive is a new media technology tool that has successfully been used by cultural institutions and artists in numerous countries. Many cultural institutions have used Artivive as a new learning model in order to further engage their audiences in the content that they produce, as our analysis shows. Indeed, the tool has allowed those institutions to successfully provide engaging, fun, interactive and immersive educational experiences to their visitors. From our examples, we saw that the focus of the content created by the AR tool remained on factual information and that the balance between entertainment and education seemed favourable to effectively and fruitfully disseminate knowledge, without falling into pure entertainment and/or over-stimulation. Likewise, we saw that the narrative possibilities of the Artivive tool were many, and that immersive and interactive narratives might contribute to enhancing the viewer's learning experience and engagement. We saw that the Artivive tool, in a context of edutainment, and regardless of the fact that it was not created as we saw with an all-inclusive approach, could also contribute to enhancing the learning experience and engagement of disabled people. Moreover, we saw that Artivive has also the potential, we would argue, to facilitate co-creation, because of the way the viewer is invited to actively interact with the content and because of the fact that it might lead visitors to interact with one another, which might result in the creation of knowledge and meaning. In addition, AR as an art form used with Artivive similarly prompts the viewer to become an active user, and allows the viewer to immerse himself/herself in the

experience generated by the AR, which also contributes to fundamentally changing the way art is experienced within the museum/ gallery space and changing behavioural patterns within those places, which might lead to more rewarding experiences. As a result, our case study allowed us to reflect upon and sometimes solidify the hypotheses made in our theoretical background and allowed us to strengthen our arguments.

3.2 Galerie Rudolf Leeb:

3.2.1 Introduction

Galerie Rudolf Leeb is a young and dynamic contemporary art gallery located in Vienna. The cultural institution puts all its focus on promoting the works of young talented artists who are principally based in the Austrian capital. Ever since its inception, in January 2017, the gallery has coordinated numerous exciting interdisciplinary cultural events – debates, concerts, performances, theatre plays, yoga sessions and readings – and has participated in national and international art fairs. Galerie Rudolf Leeb has likewise organised several events in partnership with other institutions and has constantly worked on seeking innovative ways to engage its audience and expand its image on the art market. In this chapter, we will provide a pragmatic analysis of Galerie Rudolf Leeb’s organizational and structural components based on practical experience and theory. We will frame, throughout the chapter, our analyses within the scope of this research, and reflect on how Galerie Rudolf Leeb has been able to respond to the use of new media technologies within its institution, and examine the effects that new media technologies might have had on audience engagement and learning within the contemporary art gallery. In this way, we will first bring our attention to the gallery’s philosophy and goals, and critically examine the relevance of its philosophy and goals in relation to contemporary concerns in the art world. Then we will shed light on the gallery’s innovative features, which will lead us to explore if new media technologies have played a role, or not, in the innovative endeavours undertaken by the contemporary art gallery. We will shed light on the gallery’s program and programming, and we will analyse the relevance of Galerie Rudolf Leeb’s program – during the time that the internship was conducted – in relation to contemporary aesthetic, social and political issues. After this, we will shed light on the gallery’s marketing strategies and reflect on the role that new media technologies play in the establishing of those strategies, and evaluate the outcome of those strategies so as the development and maintenance of audience engagement within the cultural institution. We will provide a theoretical analysis of Galerie Rudolf Leeb’s audience segmentation model, which will help us to account for the outreach that the art gallery has. Finally, we will describe the

activities that were conducted throughout the internship and the challenges that were encountered.

In this chapter, some of our arguments and analyses will not have a direct link with the object of this research, that is to say, the relationship between new media technologies, audience engagement and learning enhancement. However, we considered that mentioning and providing critical analyses of some of those subjects of study was paramount to the analysis of art gallery as a cultural institution within the scope of this internship report.

3.2.2 Philosophy and goals

Gallery Rudolf Leeb is genuinely committed to promoting the works of upcoming local and international artists who live, work and/or study in Vienna. The gallery wants to give talented young individuals the opportunity to thrive in the art market, to support them in their choices and to provide guidance. The second crucial feature is characterised by the fact that it aims at giving voice to female artists. Indeed, the management branch of the gallery argues the art market is still principally dominated by male figures, and this is exactly the reason why the members of the contemporary art gallery are deeply devoted to giving women the opportunity to succeed in this field. To put this principle into effect, the gallery has worked on maintaining a quota of female artists, which approximately equals eighty percent. Sociologist Taylor Whitten Brown in the article “Why is Work by female artists Still Valued Less Than Work by Male Artists?” points to the fact – thanks to empirical evidence taken from the Artsy website – that “there is evidence of a gap between men’s and women’s art” in terms of artwork prices, leading to the conclusion that women’s artworks were less valued than men’s within the scope of this specific analysis (Whitten Brown 2019)⁴³. This study was based on the artworks produced – a total of 108.654 – by 11.675 artists since 1999 and that separated artworks according the medium used (Whitten Brown 2019)⁴⁴. The author seems to explain this disparity with the fact that men and

43 Whitten Brown, Taylor. 2019. “Why Is Work by Female Artists Still Valued Less Than Work by Male Artists?.” *Artsy*, March 8, 2019. Accessed March 10, 2020. <https://www.artsy.net/article/artsy-editorial-work-female-artists-valued-work-male-artists>.

44 Whitten Brown, Taylor. 2019. “Why Is Work by Female Artists Still Valued Less Than Work by Male Artists?.” *Artsy*, March 8, 2019. Accessed March 10, 2020. <https://www.artsy.net/article/artsy-editorial-work-female-artists-valued-work-male-artists>.

women tend to produce works with different characteristics, and puts the highlight on the fact that collectors seem to favour artworks produced by men, and thus – if characteristics based on gender exist at all – that they favour artworks with male characteristics (Whitten Brown 2019)⁴⁵. The study also shows that only 35% of the selected artists were in fact female (Whitten Brown 2019)⁴⁶, which also leads to the conclusion that women’s representation in the art market is less significant than men’s despite the fact that more women graduate in the arts than men (Whitten Brown 2019)⁴⁷. Another study, conducted by the Woman Made Gallery, based on “Gender Representation in Commercial Galleries” in the United-States, shows that only 40% of women artists obtain solo exhibitions, and that in famous commercial galleries such as David Zwirner, an even smaller percentage of female artists obtain solo exhibitions (11,76% at David Zwirner, 15,79% at Gagosian Gallery and 37,5% at Hauser & Wirth) (Gardner-Huggett 2015)⁴⁸. Art historian and feminist Linda Nochlin has a similar point of view; in “Why Have There Been No Great Women Artists?”, Linda Nochlin defends the following when she refers to gender discrimination: “The fault lies not in our stars, our hormones, our menstrual cycles, or our empty internal spaces, but in our institutions and our education [...]” (Nochlin 1988, 150). Throughout the essay, the author lists a certain number of examples to justify her observations, for instance, she drives our attention to the fact that women were not allowed to paint nudes at the arts academy during the 19th century (Nochlin 1988, 158-9), the author

45 Whitten Brown, Taylor. 2019. “Why Is Work by Female Artists Still Valued Less Than Work by Male Artists?.” *Artsy*, March 8, 2019. Accessed March 10, 2020. <https://www.artsy.net/article/artsy-editorial-work-female-artists-valued-work-male-artists>.

46 Whitten Brown, Taylor. 2019. “Why Is Work by Female Artists Still Valued Less Than Work by Male Artists?.” *Artsy*, March 8, 2019. Accessed March 10, 2020. <https://www.artsy.net/article/artsy-editorial-work-female-artists-valued-work-male-artists>.

47 Whitten Brown, Taylor. 2019. “Why Is Work by Female Artists Still Valued Less Than Work by Male Artists?.” *Artsy*, March 8, 2019. Accessed March 10, 2020. <https://www.artsy.net/article/artsy-editorial-work-female-artists-valued-work-male-artists>.

48 Gardner-Huggett. 2015. “Why We Need to Count: A Response to Woman Made Gallery’s Study on Gender Representation in Major U.S. Galleries and Museums.” *Woman Made Gallery*, April 17, 2015. Accessed March 10, 2020. <https://www.dropbox.com/s/pja8bwdo595836o/WMG%20Gender%20Representation%20Report%20Final.pdf?dl=0>.

concludes the essay by arguing that “it was indeed *institutionally* impossible for women to achieve excellence or success on the same footing as men, *no matter what* their talent, or genius.” (Nochlin 1988, 176). Although this essay dates back to some decades ago, it is contextually relevant to mention it here in order to better understand how and why such discrimination emerged, and to further understand why women artists are still in minority nowadays, why they are under-represented by arts institutions and undervalued in the eyes of art collectors (Whitten Brown 2019)⁴⁹.

From those statements, we can conclude that there has been and there still is evidence of female discrimination – taking effect on several levels – in the art world, and for this reason, we would argue that Galerie Rudolf Leeb’s mission statement seems to directly reflect on such issues, especially considering that those issues are still the object of much debate in contemporary society. Rudolf Leeb, the director of the gallery, establishes the value of an artwork with the artist according the following criteria: the material used, the time spent on the creation of the artwork, the size on the artwork and the artist’s repute. There is no evidence, when one glances at the different artwork prices on the gallery’s official website, of a price gap between male and female artworks. Galerie Rudolf Leeb’s most important response to those issues is reflected in the quota of female artists (approximately 80%) that it has been working on maintaining. We believe that through such initiative, the gallery – together with other institutions – could contribute to changing the codes of a deeply rooted cultural hegemony that has been responsible for female prejudice and discrimination in the arts and other fields for centuries. In addition to this, Galerie Rudolf Leeb – as we previously saw – has been promoting the works of female artists working with digital technologies. This factor shows, once again, that the gallery is committed to contributing to changing certain prejudices that are still very much present with regards to women, their roles and the type of activities they should conduct within society. Indeed, technologies, machines and technical work have been associated to men throughout centuries, and it is something that still is pervasive in contemporary Western society according to sociologist Judy Wajcman: “in contemporary Western society, the

49 Whitten Brown, Taylor. 2019. “Why Is Work by Female Artists Still Valued Less Than Work by Male Artists?.” *Artsy*, March 8, 2019. Accessed March 10, 2020. <https://www.artsy.net/article/artsy-editorial-work-female-artists-valued-work-male-artists>.

hegemonic form of masculinity is still strongly associated with technical prowess and power. [...] Notwithstanding the recurring rhetoric about women's opportunities in the new knowledge economy, men continue to dominate technical work." (Wajcman 2010, 145). In this manner, we would argue that the display of such artworks within Galerie Rudolf Leeb's exhibition space also contributes to solidifying the gallery's stance with regards to female discrimination in the art world and beyond.

However, in this section, we decided not to further develop the point made on female representation in the art world because it is not the main purpose of our internship report, but we found it crucial to develop this aspect since it is one of the most important criteria of Galerie Rudolf Leeb's philosophy and identity.

In this way, the gallery's philosophy is safeguarded and cultivated by a small team of young individuals whose expertise and ideas are valued and nurtured. It is paramount to the cultural institution that each member be on the same level as the others. This kind of work environment is made possible partly because the gallery follows a flat organisational structure, such structures often provide healthier work conditions because they mostly rely on team spirit, they allow a closer proximity between staff members regardless of their position, which increases efficiency, promotes collaborative problem solving and erases hierarchic barriers (Meehan 2019)⁵⁰.

Galerie Rudolf Leeb's website and digital platforms are at the core of the gallery's business; Galerie Rudolf Leeb strongly believes in the power that those platforms can have on fostering the image of an organization, on expanding its audience and on generating revenue. The gallery ultimately aims at expanding its outreach on an international level, which it would do – and has already done – in adopting innovative means of meaning making and marketings strategies through digital platforms. Digital technologies are at the core of Galerie Rudolf Leeb's organizational structure, they are the tools that allow the gallery to expand its influence beyond its walls, to disseminate information and engage the audience in the content produced, on the gallery's official website or and social media, for example.

50 Meehan, L. Colette. 2019. "Flat Vs. Hierarchical Organizational Structure." Last modified February 12, 2019. <https://smallbusiness.chron.com/flat-vs-hierarchical-organizational-structure-724.html>.

3.2.3 Innovative endeavours

One of the main features of the gallery's official website is that it is, above all, an e-commerce platform that allows the gallery to sell its artworks online. Shopify, which is the name of the platform, allows potential customers to navigate through the website and shop for artworks that they might be interested in purchasing. This special component is particularly innovative in the Viennese art scene, Galerie Rudolf Leeb is one of the few galleries that allows the audience to buy art online. It is possible to link Shopify's products to Facebook and Instagram shops in order to reach more people. This digital purchasing option has, as a result, scarcely been used by customers. However, it has brought people of interest to come to the gallery to see the art in person and sometimes, buy the artwork. Thus, regardless of the fact that this innovative feature has barely contributed to generating direct revenue online, it has undoubtedly contributed to increasing sales and to enhancing audience engagement – because of the interest that it triggered. Additionally, we would argue that this feature has also necessarily contributed to increasing the gallery's visibility and transparency, and that it has participated in positioning and solidifying the gallery's image as a cultural institution that is determined to use progressive digital tools and technologies. Beyond the fact that Shopify is an e-commerce platform that has been principally designed to generate revenue online, and beyond its potential to generate revenue, we noticed that this digital platform has led to arousing some people's interest in Galerie Rudolf Leeb – perhaps because of the visibility of the artworks available online and the transparency of the information provided – and its program and philosophy, hence inducing a successful increase in audience engagement, thanks to a new media technology platform.

In addition, Galerie Rudolf Leeb recently made – in December 2019 – a partnership with a thriving fintech art company called Art Money. Art Money is a fine-tech start-up that allows customers to purchase art under advantageous conditions; it allows someone to pay for the price of an art piece over the course of ten months, without interest. This service is at the moment only available to North-American and Australian citizens but the company is planning on making Art Money available to European citizens in the course of 2020. In this way, only customers coming from those countries would presently be able to buy Galerie Rudolf Leeb's artwork thanks to this service. The gallery principally made this

agreement to make art accessible to a wider range of people and to expand the outreach of its image on a national and international level. As a result, the Art Money platform might have contributed to increasing the contemporary art gallery's visibility and thus, leading to an increase in people's interest in the gallery on an international level, which would also contribute to enhancing audience engagement in the content and services offered by Galerie Rudolf Leeb.

Moreover, the gallery has produced, in January 2020, the first issue of what is expected to become a long series of podcast recordings. The podcast was released within the scope of an exhibition – entitled *Farewell, You Beloved Piece of Art* – that displayed the works of the photography class of Vienna's School of Applied Arts. This issue, which was made available on the gallery's website, consists of a series of short interviews conducted between the artists of the show and the gallery owner. Each statement gives the audience a description of the artist's methods and gives an insight into the conceptual facet of each artist's exhibited artwork(s). The aim of the podcast is to engage the audience in the content that the gallery produces, to disseminate knowledge on a different level and encourage critical thinking. The gallery is determined to provide exciting cultural content to its audience on a regular basis. This would eventually result in fostering trust and building stronger links and loyalty between the gallery and its audience segments. We would argue that the audience segments would benefit from such an endeavour both on an instrumental – acquisition of knowledge – and intrinsic level – engaging the audience and creating a sense of well-being – (McCarthy et al. 2005)⁵¹. Indeed, the RAND corporation's research brief on the arts, entitled "Reframing the Debate About the Value of the Arts", separates the benefits of art consumption into two categories; instrumental and intrinsic (McCarthy et al. 2005)⁵². Each category is comprised of different criteria and operates on several levels. Instrumental benefits are of a more tangible nature and are associated to educational purposes and results, knowledge acquisition and social capital (McCarthy et al.

51 McCarthy, Kevin F., Elizabeth Heneghan Ondaatje, Laura Zakaras, and Arthur Brooks. 2005. "Reframing the Debate About the Value of the Arts." Santa Monica: RAND Corporation. Accessed February 20, 2020. https://www.rand.org/pubs/research_briefs/RB9106.html.

52 McCarthy, Kevin F., Elizabeth Heneghan Ondaatje, Laura Zakaras, and Arthur Brooks. 2005. "Reframing the Debate About the Value of the Arts." Santa Monica: RAND Corporation. Accessed February 20, 2020. https://www.rand.org/pubs/research_briefs/RB9106.html.

2005)⁵³. Intrinsic benefits are intangible, they are characterised by factors such as “captivation, pleasure, expanded capacity for empathy, cognitive growth, creation of social bonds, [and] expression of communal meaning” (McCarthy et al. 2005)⁵⁴. This analysis is crucial to understanding the ways through which one can benefit from art consumption. It shows how important it is for arts organisations to produce content that could satisfy the expectations and needs of its audience on both an intrinsic and instrumental level so as to optimize its audience's experience and favour audience engagement. In this way, we will argue that Galerie Rudolf Leeb's podcast has the potential to increase the audience's engagement towards the gallery's content by allowing the institution to satisfy the needs of its audience on a less site-specific basis and thus, on a broader scale. As a result, this initiative could contribute to nurturing the gallery's brand image, to reinforcing links with its core audience, and make the cultural institution stand out on a local level.

The collector's room is a project that was initiated in December 2020. Galerie Rudolf Leeb is composed of two main rooms, which were both previously used within the scope of the gallery's current exhibitions. The director of the gallery took the decision of separating those two rooms and to dedicate the first room – connected to the entrance – to current exhibitions and to use the other room to show the works of the gallery's artists. The purpose of the endeavour was to give more prominence to the gallery's most important artists, that is to say to make those works more easily visually available to all audience segments including potential buyers. This improvement allowed the gallery to expand its value proposition, to change its position, and to show that its program did not solely revolve around temporary exhibitions.

53 McCarthy, Kevin F., Elizabeth Heneghan Ondaatje, Laura Zakaras, and Arthur Brooks. 2005. “Reframing the Debate About the Value of the Arts.” Santa Monica: RAND Corporation. Accessed February 20, 2020. https://www.rand.org/pubs/research_briefs/RB9106.html.

54 McCarthy, Kevin F., Elizabeth Heneghan Ondaatje, Laura Zakaras, and Arthur Brooks. 2005. “Reframing the Debate About the Value of the Arts.” Santa Monica: RAND Corporation. Accessed February 20, 2020. https://www.rand.org/pubs/research_briefs/RB9106.html.



Figure 6: Anna Niederleitner, *The Collector's Room at Galerie Rudolf Leeb*. Photography. 2020.

Galerie Rudolf Leeb purposefully puts considerable effort into finding new ways of engaging the audience and attracting new customer segments. Most of the contemporary gallery's features involve new media technologies and digital platforms, which shows that Galerie Rudolf Leeb strongly believes in the power that such technologies can engender in a context of representation, revenue and most importantly – within the scope of this research – in relation to audience engagement.

The art market appears to be extremely competitive, and during this internship we realised that positioning the identity of a gallery was challenging; it is undeniable that it takes time, rigour and hard work for an art institution to reach a stable and strong stance. However, we would argue that the Galerie Rudolf Leeb's innovative features could be the elements that would guarantee the gallery's success in the future.

3.2.4 Program and programming

Gallery Rudolf Leeb coordinates an average of seven exhibitions per year. The program of the gallery is dynamic and encompasses spontaneous events. During the four-month internship, the gallery hosted a total of three exhibition: the first one entitled *ZENSUR und MEINUNGSFREIHEIT* took place from September to October 2019. This exhibition invited the public to question the notion of censorship and freedom of speech. One of the artists of this group show, Santiago Sierra, the renowned Spanish artist, shed light on Spain's dubious governmental reactions so as to political activism through his installation entitled *Political Prisoners in Contemporary Spain (2018)*. In 2018, one of Spain's most renowned art fairs, ARCOmadrid, forbade Helga de Alvear gallery to exhibit Sierra's installation because of the artworks' controversial political content (Rojas 2018)⁵⁵. The installation, which was composed of 24 pictures, portrayed politically engaged people – some of them were part of the Catalan separatist movement – with different professional occupations (Rojas 2018)⁵⁶. The specificity of these portraits is that the faces of each of those political figures were concealed by blurry and pixel-like rectangular shapes (Rojas 2018)⁵⁷. One could read the title of the portraits at the bottom of each image, together with a description of the different criminals charges and legal punishments (Rojas 2018)⁵⁸. Santiago Sierra aimed exactly at bringing into light the fact that people are still being

55 Rojas, Laurie. 2018. "Santiago Sierra Denounces Censorship After His Portraits of Spain's Political Prisoners Are Removed From ARCOmadrid: The controversial work features the partially obscured faces of jailed Catalan separatists." *Artnet News*, February 21, 2018. Accessed February 21, 2020. <https://news.artnet.com/market/santiago-sierras-portraits-spains-political-prisonerscensored-madrid-art-fair-1229117>.

56 Rojas, Laurie. 2018. "Santiago Sierra Denounces Censorship After His Portraits of Spain's Political Prisoners Are Removed From ARCOmadrid: The controversial work features the partially obscured faces of jailed Catalan separatists." *Artnet News*, February 21, 2018. Accessed February 21, 2020. <https://news.artnet.com/market/santiago-sierras-portraits-spains-political-prisonerscensored-madrid-art-fair-1229117>.

57 Rojas, Laurie. 2018. "Santiago Sierra Denounces Censorship After His Portraits of Spain's Political Prisoners Are Removed From ARCOmadrid: The controversial work features the partially obscured faces of jailed Catalan separatists." *Artnet News*, February 21, 2018. Accessed February 21, 2020. <https://news.artnet.com/market/santiago-sierras-portraits-spains-political-prisonerscensored-madrid-art-fair-1229117>.

imprisoned for peacefully manifesting their political opinions in contemporary Spain, and at shedding light on how such governmental actions are a threat to democracy (Sierra 2018)⁵⁹. As a response to ARCOMadrid’s reaction to his installation, Santiago Sierra stated: “Acts of this type give sense and reason to a piece like this, which precisely denounced the climate of persecution that cultural workers are suffering in recent times.” (Rojas 2018)⁶⁰. In this way, ARCOMadrid’s decision only confirmed how censorship is used – in this case, in Spain – to disguise all attempts directed towards unmasking facts that could impair the stability or worsen the state of a government, which precisely goes against the principles of freedom of speech and, according to Sierra, deprives people who work in the cultural sector from fulfilling their purposes (Rojas 2018)⁶¹. Thus, Galerie Rudolf Leeb’s exhibition, ZENSUR und MEINUNGSFREIHEIT, directly responded to current debates revolving around the subject and invited people to reflect on the use of censorship in the arts nowadays. The exhibition encouraged critical thinking with regards to an issue that perdures in the art world on a global scale and called for further investigations in the field of cultural policy and induce change; which is specifically what Galerie Rudolf Leeb aimed at doing by making this exhibition available to the public.

58 Rojas, Laurie. 2018. “Santiago Sierra Denounces Censorship After His Portraits of Spain’s Political Prisoners Are Removed From ARCOMadrid: The controversial work features the partially obscured faces of jailed Catalan separatists.” *Artnet News*, February 21, 2018. Accessed February 21, 2020. <https://news.artnet.com/market/santiago-sierras-portraits-spains-political-prisonerscensored-madrid-art-fair-1229117>.

59 Sierra, Santiago. 2018. “Political Prisoners in Contemporary Spain.” *El Garaje Ediciones S.L.*, February, 2018. https://cdn.shopify.com/s/files/1/1569/3363/files/Santiago_sierra_Press-Release-February2018.pdf?923.

60 Rojas, Laurie. 2018. “Santiago Sierra Denounces Censorship After His Portraits of Spain’s Political Prisoners Are Removed From ARCOMadrid: The controversial work features the partially obscured faces of jailed Catalan separatists.” *Artnet News*, February 21, 2018. Accessed February 21, 2020. <https://news.artnet.com/market/santiago-sierras-portraits-spains-political-prisonerscensored-madrid-art-fair-1229117>.

61 Rojas, Laurie. 2018. “Santiago Sierra Denounces Censorship After His Portraits of Spain’s Political Prisoners Are Removed From ARCOMadrid: The controversial work features the partially obscured faces of jailed Catalan separatists.” *Artnet News*, February 21, 2018. Accessed February 21, 2020. <https://news.artnet.com/market/santiago-sierras-portraits-spains-political-prisonerscensored-madrid-art-fair-1229117>.



Figure 7: Galerie Rudolf Leeb, *ZENSUR und MEINUNGSFREIHEIT* exhibition view. 2019. Photography.

The second exhibition, which took place from October to November 2019 displayed the works of two artists, Elizaveta Podgornaia who is a young Russian photographer and Florian Nitsch who mainly works with paint. Each artist's works were separately exhibited in different rooms, but both artists questioned to notions of space, materiality and media. At first glance, one would believe that Podgornaia's photographs are in fact, paintings. The artist develops her work in a singular manner: she first selects pieces of fabric, which she carefully paints, she modulates them in a certain manner and then takes a picture of the final object. In this way, her work operates on several levels and encompass both painting, sculpture as well as photography. Through her process, the artist goes from more traditional and palpable art forms, mostly characterised by their three-dimensionality, to an art form that is defined by its digital and two-dimensional nature. Elizaveta Podgornaia's work questions the nature of these media and their relevance in the Digital Age (Galerie

Rudolf Leeb 2020)⁶². The artist's work is particularly relevant because it is used as a means to challenge the way images are produced nowadays and because it responds to the overwhelming ubiquity of images and their abundance on digital platforms. Florian Nitsch also works with painting, sculpture and produces digital performances that combine sound and visual elements. In the exhibition, he used fractions of one of his performances' visuals as a basis for some of the displayed canvases. The artist is strongly influenced by American Pop and Minimalist art, and by the post-industrial architecture of New-York city (Seidl 2020)⁶³. Just like Elizaveta Podgornaia, Florian Nitsch plays with the notions of two-dimensionality and three-dimensionality; for the occasion of a previous show in another institution, he had created a sculpture out of some of the biggest paintings which were exhibited at the gallery. He is also interested in experimenting with different media and pushing the boundaries of more traditional practices like painting. Indeed, as mentioned before, the artist used a screening technique to transfer – with a roller and acrylic paint – some of the visual elements that he had initially manually created with a digital tool. Nitsch's work oscillates between media, which allows him to explore their possibilities and limits. These two exhibitions consequently responded to current concerns with regards to the digitalization of art nowadays, the status of traditional art forms, as well as the industrialization of images and their ubiquity in contemporary societies.

62 Galerie Rudolf Leeb. 2020. "Elizaveta Podgornaia." Accessed March 3, 2020. <https://www.galerierudolfleeb.at/collections/elizaveta-podgornaia>

63 Seidl, Walter. 2020. "Vom Bild zur performativen Geste: Mediale Überlagerungen in den Arbeiten von Florian Nitsch." Accessed March 4, 2020. https://cdn.shopify.com/s/files/1/1569/3363/files/W.Seidl_ueber_F.Nitsch.pdf?_1643

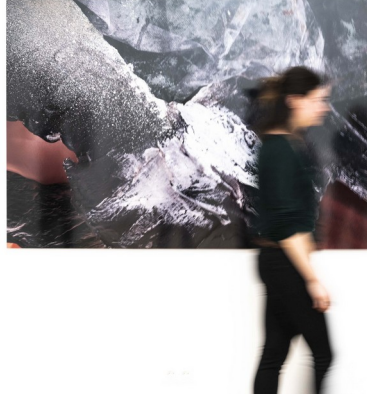


Figure 8: Anna Niederleitner, *Elizaveta Podgornaia and her work during the exhibition at Galerie Rudolf Leeb*. Photography. 2019.



Figure 9: Anna Niederleitner, *Florian Nitsch and some of his works at Galerie Rudolf Leeb*. Photography. 2019.

The third exhibition, *Farewell, Farewell, You Beloved Piece of Art*, was available to the public from December to January 2020. This show was made through a collaboration with Vienna's School of Applied Arts and displayed the works of sixteen students from the educational institution's photography class. The exhibition was unique in its diversity; the

only element that the artists' work(s) had in common was their medium, even though some artists used several media, they all worked with photography on some level. Each artist raised different aesthetic, political and/or societal questions. This diversity of approaches made the exhibition relatively vibrant and successful, the artworks were curated in a way that allowed the formation of a continuity and resonance between the artworks. The show was, as a result, particularly relevant to the mission of the gallery; Galerie Rudolf Leeb aims at promoting the works of young artists who are still studying and/or who recently graduated. Likewise, the topics and techniques that the students used were the result of the initial training in photography that they received and gave a sense of how this specific educational institution trains its students and encourages them to create. In this respect, the combinations of media that some students used in their work also demonstrates the concerns that the new generation of artists have with regards to New Media. Maximiliane Leni Armann, for instance, relied upon a promising Viennese augmented reality tool named Artivive – which we previously mentioned in this report – to create *HumanDoing_on/off*, which was exhibited at the show. The artwork consisted of two digital images composed of augmented reality layer, all of whose were created by the artist. The audience could experience the augmented reality artwork thanks to the Artivive application, which is available on smartphones. The artwork portrayed several figures that mechanically repeated the same movements in an endless loop, the moving characters' gestures were reminiscent of the automatization of industrial work processes (Galerie Rudolf Leeb 2020)⁶⁴. There is a paradoxical nature living at the core of her work; *HumanDoing_on/off* seems to make a critique of the ways industrialised work alienates workers because of the way that workers often end-up adopting machine-like movements, and on the other hand, she used tools that were themselves industrially processed for the elaboration of her work. Armann's work loses its meaning and purpose without the augmented reality layer, it is paramount to understanding the narrative and value of her work to experience *HumanDoing_on/off* with the Artivive application. As a result, her work, because of its subject-matter and the media used, raised questions with regards to the way New Media art is used in arts institutions nowadays. In addition, we would argue that the AR artwork,

64 Galerie Rudolf Leeb. 2020. "Farewell, You Beloved Piece of Art."

Accessed March 3, 2020.

[https:// www.galerierudolfleeb.at/collections/farewell](https://www.galerierudolfleeb.at/collections/farewell).

because of its narrative and immersive nature, and because it leads the viewer to actively initiate the experience, undoubtedly contributes to enhancing audience engagement on a certain level.



Figure 10: Anna Niederleitner, Rudolf Leeb, Karina Mendreczky, and Maximiliane Leni Armann experiencing Armann's AR work during the vernissage of the Farewell, You Beloved Piece of Art exhibition. Photography. 2020.

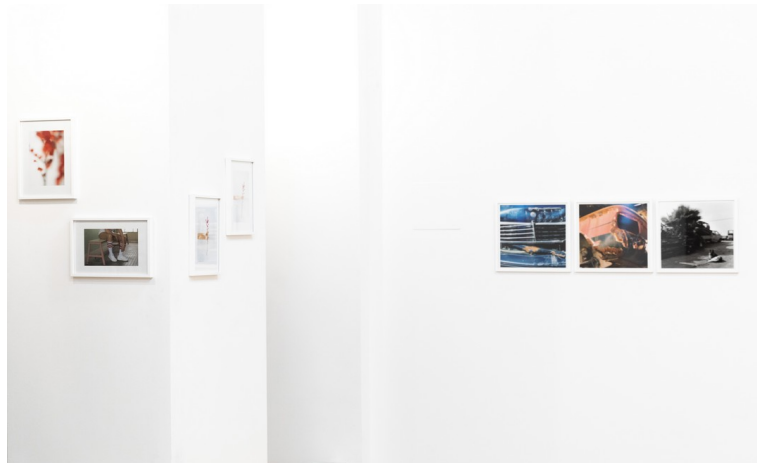


Figure 11: Anna Niederleitner, *Farewell, You Beloved Piece of Art* exhibition view. Photography. 2020.

Each of Galerie Rudolf Leeb's exhibitions responded to issues that were relevant to today's aesthetic, political and/or cultural concerns. The gallery's exhibitions were curated by different curators or institutions chosen according to the theme of the show, which was always in line with the value proposition of Galerie Rudolf Leeb.

During this period, the gallery also took part in two different art fairs. In the first one, *Parallel Vienna*, which took place from 24th to 29th September 2019, the gallery exhibited the works of a fairly well established artist, Veronika Suschnig. The art fair welcomed a consequential number of visitors but the setting of the fair was unfortunately not optimal. Indeed, the event took place on a three-floor building constituted of hundreds of office rooms, each gallery or artist was assigned a room to exhibit their works and the public had to make the effort of entering each room in order to experience the art. We concluded, from several visitors' opinion, that the organisation of the fair was made in such a way that it made it difficult for people to orientate themselves throughout the building and that the important number of galleries and artists participating did not favour positive feedback and caused despondency. Even though several artworks from Veronika Suschnig were sold during this event, the staff of the gallery often had to invite people to see her works and ask people to make the effort of stepping inside the room, which added a challenge. The second art fair, *Fair for Art Vienna*, took place from 3rd to 11th October 2019. During this event, the gallery displayed the works of several artists represented by the gallery. An

important section of the fair was reserved to fine art and antiques and many visitors came to experience this category of art. The modern and contemporary art section of the fair was located on the last floor and many people failed to interact with the artworks that the gallery had chosen to exhibit. We would argue that this event mainly targeted a very specific audience segment that was not particularly interested in contemporary art. Regardless of the fact that art fairs engender important costs and are not always financially profitable to galleries, the event did allow Galerie Rudolf Leeb to expand its outreach to art collectors, to generate some revenue and to establish itself as a brand. As a result of those fairs, Galerie Rudolf Leeb sent targeted emails to people who were interested in specific artworks. Those emails invited the customer to come to the gallery to see the artwork and provided the customer with more information on the specific art piece, some of whose generated positive responses. For all these reasons, we could state that it is paramount for an art gallery to assist to such events.



Figure 12: Rudolf Leeb, *Fair for Art Vienna exhibition view*. Photography. 2019.

In parallel to the fairs and within the scope of the gallery's exhibitions, several spontaneous events were coordinated during those four months. A panel discussion was organized during the *ZENSUR und MEINUNGSFREIHEIT*'s show under the following

title: *Democratic regression? The situation of freedom of speech in Europe*, and whose key speakers were some members of the Catalan Cultural Association in Vienna and some notable Spanish political figures. During the second exhibition, dedicated to Podgoraia and Nitsch, an artist talk under the title *WESTOST – Making Truth* was organized with the curator of the Kunstforum Wien, Veronika Rudorfer. An artist talk and an event with the Viennese Rotary Theatre Club were also put together. Likewise, two artist talks and one concert was organized within the scope of the last show. These events generally successfully attracted visitors, they allowed the audience to meaningfully engage with the content produced by the gallery, generated revenue and contributed to solidifying the image of the gallery. Such activities appear to be paramount for an art gallery to gain in recognition, to grow as a cultural institution, to forge its mission and to expand its family.



Figure 13: Anna Niederleitner, *ZENSUR und MEINUNGSFREIHEIT*'s Panel Discussion at Galerie Rudolf Leeb. Photography. 2019.

As mentioned above, Galerie Rudolf Leeb hosts an average of seven shows per year and plans one or two exhibitions ahead. It could be argued, according to Michael M. Kaiser's view on arts organizations management, that in order to guarantee a greater success, a cultural institution should have a more or less clear idea of all the yearly activities that it will be conducting and should also perhaps draft an approximate plan three

to five years ahead of time to make sure that the future program of the institution would respect the values that it defends, and would grow in the right direction (Kaiser 2013, 21). However, we would argue that the success of an art gallery does not principally reside in long-term planning itself but rather in the manner by which the gallery's programs is disseminated and in the quality of those services. The gallery follows a rather strict schedule, the coordination of its program is fairly well undertaken and the members of the gallery make sure that the mission of the institution is respected in every marketing endeavor and in every part of the decision-making process. The gallery carefully selects new artists makes sure that those artists would correspond to the gallery's philosophy and stance, and tries to establish strong professional bonds with each artists. A contract was established for each gallery artists in order to lawfully secure the relationship between the two parties, which is an initiative that could also be seen as innovative since so little galleries operate this way (Resch 2016, 55).

In addition, the management branch of the gallery decided during the course of the internship to implement regular team meetings in order to solidify the organizational competences of each member and thus, of the gallery as a whole. Planning is undoubtedly the most important pillar of arts organizations and businesses. Galerie Rudolf Leeb has a thorough understanding of how crucial it is to engage the audience, to cultivate the interest of its family and to provide singular experiences, which it does thanks to spontaneous events and digital technologies. However, and regardless of all the strategies that the gallery implemented, the art market remains very vast, unpredictable and competitive, which makes it considerably difficult for an art gallery to thrive (Resch 2016, 10).

3.2.5 Marketing strategies

Galerie Rudolf Leeb's team members are very much involved in finding and implementing efficient marketing strategies. The website of the gallery is undeniably one of the most important tools to reach out to and engage its audience and to new contacts. A large panel of information can be found on this platform: texts on each exhibited and gallery artist, artist biographies, research texts, information about past and future exhibitions, photographs of each opening and special event, information on the price and availability of each artwork that is part of the gallery's catalogue, podcast recordings, news.

The website acts as a hub of information about the gallery, and the fact that this platform can be freely accessed by anyone, together with the fact that it is both available in German and English is a considerable advantage. The web page is updated every week, if not everyday, which is a strategy that allows the audience to keep interest in the gallery and that maintains the audience's involvement and excitement with regards to the gallery's program, which seems to be a considerable asset for arts organizations (Kaiser 2013, 38-9). As a result, Galerie Rudolf Leeb undeniably considers that actively working on producing new digital content to enhance audience engagement, and to respond to the expectations of some audiences, is crucial.

Social media, which is key for the dissemination of information and audience engagement, is a tool that the gallery strongly relies upon. Indeed, those digital platforms – Facebook, Twitter and Instagram – are used on a daily basis by the gallery. They allow Galerie Rudolf Leeb to actively interact in real-time with its audience segments and to foster trust between the two parties. Kaiser argues that: “Social networking sites like Facebook and Twitter have become important tools for arts organizations. The viral nature of these sites allows your family members to reach out to their friends and associates and to spread information, opinions, and calls to action from person to person. (...) These sites also provide an opportunity for family members to speak back to the organization – a healthy and productive activity that creates a sense of community among frequent users.” (Kaiser 2013, 39), Facebook and Instagram are the tools that the gallery entirely depends on to advertise special events, and their ability to efficiently attract and engage people in the program of the contemporary gallery is undeniable. The number of social networks followers has steadily kept increasing during the period of the internship, and the responses to those events were generally very encouraging in terms of audience and aftermath feedback. During the internship, we noticed that it was paramount to choose visual materials that would be more liable to attract people's attention and interest, however it takes some time and research to fully understand what kind content pleases the niches the most. Social media platforms are cyberspaces that play a major role in increasing and maintaining audience engagement on a general, as we previously argued. But they have also allowed Galerie Rudolf Leeb to effectively maintain a presence beyond the walls of its institution during the shutdown and confinement period caused by COVID-19 in Austria.

Indeed, new media technologies and more precisely, social media have allowed the gallery to safely coordinate and broadcast live art talks on Instagram, with the aim of enhancing audience engagement in relation to the content of the exhibition that was available at that time. As a result, these initiatives, because of the educational content of the artist talks and because of the fact that they are able to transcend the physicality of the cultural institution, have unquestionably contributed to enhancing learning and audience engagement, thanks to the outreach that such platforms can achieve. In this way, and in addition to the already important role that social media on daily basis for audience engagement and learning, Galerie Rudolf Leeb has also achieved – with other Viennese institutions, as we previously discussed – the respond to the challenges caused by the recent pandemic.

In parallel to this, Galerie Rudolf Leeb uses digital newsletters to inform its contacts about the gallery's program, which are designed by the gallery and sent on a regular basis with a platform called MailChimp. The MailChimp platform also allows its users to access statistics in relation to the newsletters, and see how many people opened the newsletters and who unsubscribed, for example, which is useful to assess the success of those newsletters within audiences. In the same way, the gallery's repertoire of contacts has equally increased during the four-month period. The content of each newsletter was always very carefully selected in order to obtain the best results in terms of responses. The members of the gallery were very careful not to write texts that were too long and to use a vocabulary – e.g. catchy titles and different rhetorical strategies – that would solicit the readers' interest and engagement. It is also crucial to choose the right visual contents and to design a visually attractive layout, that would instantly guide the readers' eyes to the most important pieces of information. In order to further engage and to strengthen its bonds with its audience, the gallery has sent special newsletters for Christmas and New Year's Eve, comprised of original gift ideas with various price ranges so as to reach as many audience segments as possible. Although we cannot assess if those endeavors have had a direct impact on sales, we can argue that digital newsletters do, beyond question, contribute to the good-functioning of the gallery; they inform the audience on the content produced by the gallery and provide crucial information on specific artworks (or artists) and events to come. In this way, it is safe to say that digital newsletters also have the potential – since

they are designed for the purpose – to further engage the audience and enhance learning, to some degree.

The gallery also uses the means of newspapers to promote its program and services, during the internship, the gallery made an appearance in a progressive Viennese arts magazine entitled *Les Nouveaux Riches*. Galerie Rudolf Leeb also invested to make an appearance – as an advertisement – in the newspapers of Vienna’s seventh district. Although it is somewhat difficult to tangibly measure the influence that such initiatives have on how the gallery is perceived by the public and on economic factors, it is irrefutable that they help solidify the identity of the institution and encourage the audience to interact with its content.

In this manner, we can conclude that Galerie Rudolf Leeb greatly places confidence in the use new media technologies and platforms to promote its program and events, which ultimately contributes to enhancing audience engagement and learning – to some degree since the endeavors are not purely pedagogic in themselves –, which solidifies the hypotheses that we made in relation to the use of new media technologies for audience engagement and learning enhancement within cultural institutions.

3.2.6 Accessibility components

There are several elements that might contribute to qualifying Galerie Rudolf Leeb difficult to access for people with physical disabilities. In order to enter the gallery, one needs to take several steps, which makes it more difficult for people in wheelchairs to access the facility, for example. Likewise, the facilities present inside the gallery are not adapted to people who are in wheelchairs. Galerie Rudolf Leeb is a rather young contemporary art gallery, and as we previously mentioned, it might appear difficult for some institutions to provide adequate physical access into their institution for people with physical disabilities, for financial or architectural reasons among others. However, the fact that Galerie Rudolf Leeb has been actively working, as we saw, on using new media platforms to engage its audiences might contribute to engaging audiences with physical disabilities in a meaningful manner in comparison to other young contemporary art galleries. One can find a variety of resources on the gallery’s website; various information on artists, past exhibitions, special events, projects, artworks, all of whose can contributed

to enhancing the involvement of people with physical disabilities who are seeking accurate information on the gallery. Likewise, the gallery is particularly active on social media, and the information present on those platforms might also allow audiences with physical disabilities to feel more included in the gallery's mission and to "overcome some of the difficulties and frustrations of their disability." (McMillen and Alter 2017, 121). Moreover, the gallery's podcast might also contribute to enhancing the experience of people with certain disabilities – such as visually impaired people – and improving their engagement in the gallery's program and activities, which might result in improving the gallery's accessibility features.

Nonetheless, it is important to mention that because of the fact that the gallery is still very young and because it is still working on finessing its goals and philosophy, the gallery has not particularly worked on implementing more inclusive means of information dissemination and physical access. It appears rather challenging for emerging art galleries to fulfil such requirements, since it takes consequential institutional and organizational effort to do so, which requires social capital and financial means.

3.2.7 Audience Segmentation

It is rather challenging to define the audience segmentation of a small for-profit arts organization, all the more when the institution concerned does not clearly provide information on the audience that it mainly aims at targeting in its mission statement. The gallery does not have an art club or offer volunteering opportunities that would potentially help clarify the gallery's philosophy with regards to this. However, we will argue that Galerie Rudolf Leeb's most relevant audience segment in terms of the section that interacts the most with the gallery's content is mainly composed of art lovers and experts. Indeed, the gallery promotes the works of young emerging artists who themselves bring friends, artists and friends of friends to the gallery's events and exhibitions, all of whom have undeniably somehow contributed to solidifying the gallery's image and co-created content and value with the institution. Overall, the gallery attracts a rather diversified audience, which we will divide following some elements of the audience segmentation model to be found in *Management of Art Galleries*, written by Magnus Resch (2016):

Experts: This segment would refer to people with a strong interest in contemporary art, people who are intimately familiar with the art market, who are very knowledgeable of art history and who are already familiar with the institution's philosophy. Thus, it would typically encompass people whose profession is connected to the arts and culture such as curators, art students and historians, or teachers. At Galerie Rudolf Leeb, they would usually come and actively participate to spontaneous events – talks, debates and openings. The members of this category would acquire knowledge that might result in being useful within the scope of their professional career. Hence, they would strongly benefit from the gallery's events on an instrumental level. This segment would not necessarily have the means to invest in the art available at the gallery (Resch 2016, 80), but their presence would help build the gallery's image and they could potentially bring investors and art collectors that they have in their network to the gallery's events. This audience segment would also typically engage with the content of the gallery's newsletters, social media posts and website.

Art lovers: This category of visitors would correspond to people who are genuinely interested in the contemporary art scene and/ or art in general. They would typically enjoy spending their spare time in museums and art galleries, they would not necessarily be familiar with the institution in question or occupy a profession in the field of the arts. These visitors would both come to the gallery's special events and during the opening hours. They would meaningfully engage with the exhibition's content and ask for explanation or further information, they would profit from the gallery's program on an instrument level – acquisition of knowledge – and on an intrinsic level – improving the viewer's well-being. Such visitors would not necessarily have the means to buy the art but they could become faithful co-creators of the gallery's program and would probably be liable to apply for volunteering opportunities. We believe that this audience segment would also typically engage with the content of the gallery's newsletters, social media posts and website.

Collectors: This audience segment is paramount to the financial functioning, and thus development, of an art gallery. Art collectors would come to the gallery and attend art fairs

in search of new art pieces to collect. They typically have substantial knowledge about the type of aesthetics or period they are interested in. At Galerie Rudolf Leeb, most deals were made during special events and art fairs, which gave us an idea of how important it generally is to organize such events not only for the image of an institution but so as to maintain a healthy business. Nonetheless, the contemporary art scene is the most competitive section of the art market (Resch 2016, 37) and it is difficult to attract and catch the attention of new collectors. We would argue that collectors would not typically engage with the content of the gallery's newsletters, social media posts and website. Since they might be more interested in specific artworks or artworks, they would probably not thoroughly interact with the content produced by Galerie Rudolf Leeb.

Spontaneous visitors: Such visitors would usually not have prior knowledge about the gallery's program or be passionate about visual arts. They would either visit the gallery to discover the content of a specific exhibition, by accident or because a friend invited them to one of the gallery's events. However, if the content that the gallery offers satisfies such visitors, they might come back to the gallery to participate to the gallery's activities and even help spread the image of the gallery and reach out to people. We believe that this audience segment would not particularly be involved in the digital content produced by the gallery since their existence would be unknown to the gallery prior to their spontaneous manifestation, except if they accidentally found the website or social media pages of the gallery online.

Tourists: This category of visitors would mostly become familiar with the gallery through art fairs. Such events attract many visitors, including tourists who are fond of art and want to discover the art scene of the place they are visiting (amongst others if it is an international art fair). It is crucial that those visitors build a good image of the gallery, so that they can report their experience and share their opinions on the art that the gallery offers on an international level, which could solidify the gallery's image internationally and lead to an increase in revenue. We believe that this audience segment would not particularly be involved in the digital content produced by Galerie Rudolf Leeb, except if it

is to find information on the opening hours of the gallery and such information, for example.

The segmentation model, which was based on theoretical and observational assumptions, was important to mention in this research because it gives an account of which kind of audiences would be more liable to interact with Galerie Rudolf Leeb's program and services, and how they would do so, which gives us an idea of and some tools to understand how the gallery might better adapt its program in order to satisfy and convey a singular message to each audience segment so as to increase audience engagement and outreach. This audience segmentation also allowed us to examine how, based on analytical and intangible evidence, each audience segment might interact with Galerie Rudolf Leeb's digital content. We concluded that art lovers and experts are the audience segments that might interact more deeply and meaningfully with the elements of meaning-making produced by the gallery on social media and other online platforms.

3.2.8 Activities and Responsibilities

Galerie Rudolf Leeb is young and small gallery with only one level of management. In such organizations, staff members are often brought to accomplish multiple tasks that are not always in line with their initial training.

During this internship, we fulfilled a variety of functions but our most important role was to manage and create content for the gallery's social media – mainly Instagram and Facebook – interfaces. We planned all the posts on a weekly basis according to the gallery's program, we also wrote the texts and prepared the layouts for the Instagram stories beforehand. We used those tools to expand our influence and to disseminate information about the gallery's events. In parallel to this, we reworked the english translation of some sections of the gallery's website, and we edited and created content on the website's management system (Shopify). We were also assigned to the task of writing speeches in english for the events that were conducted in english, and we also prepared the interview questions for the first issue of the gallery's podcast, and prepared contracts for the gallery's artists. Within the scope of this internship we accomplished more practical tasks, which included the handling of artworks, wrapping and unwrapping art pieces,

preparing the gallery's space for special events, reorganising the gallery's storage spaces and doing the inventory of all the artworks that the gallery possesses. During the two art fairs, my principal role was to provide information on the exhibited works to the visitors of the event and promote the gallery's program.

This professional and educational experience has allowed us to become more versatile in certain domains, it has given us tools to better understand the functioning of for-profit arts organizations and more generally, the art business. In the same way, it has led me to become aware of all the challenges that most small art galleries must face on an every day basis. This experience was, as a result, rewarding on a variety of professional and personal levels.

3.2.9 Conclusion

In this way, Galerie Rudolf Leeb is a young and dynamic art institution that strongly relies upon new technologies to disseminate information and keep its audiences engaged, and that is constantly seeking innovative and efficient tools to stand out in the art market. As we saw, the contemporary art scene is highly competitive and it is consequently particularly difficult to thrive and to build a – brand – image that conveys a unique message and catches the eye of new art collectors and break away from the fear that some people can experience with regards to such institutions (Resch 2016, 79). The gallery's events did successfully attract many visitors, but most of them were art experts and art lovers, most of whose were not liable to financially contribute to the development of the gallery. So, the most important challenge for Galerie Rudolf Leeb would be to implement a singular strategy that would attract investors and art collectors to those events. We would argue that the gallery would also strongly benefit from creating membership programs – which would allow people to participate in the building of exhibitions for example, invite people to visit artist studios and would offer preferential prices – adapted to each audience segment through price differentiation (Resch 2016, 107). This would generate complementary revenue that could be used for relevant purposes and for the growth of the gallery – e.g hiring new professionals, which would result in increasing profit (Resch 2016, 36) –, the gallery could also produce merchandise that would also generate complementary revenue and would reach all audience segments (Resch 2016, 50), which would especially

satisfy people who hold a sentimental value to the gallery's program and would want to purchase a souvenir as a result of it.

Galerie Rudolf Leeb's philosophy, goals and program are entirely relevant to contemporary aesthetic, social and political contemporary issues. In addition, it is crucial to shed light on the part that new media technologies and digital platforms play within the organizational structure of Galerie Rudolf Leeb, some of whose might even contribute to rendering the institution more inclusive. Most endeavours initiated by the gallery somehow involves the use of those technologies, which emphasises how important and crucial those technologies has become for cultural institutions, and which reinforces the argument in regards to the central role that new media technologies play for audience engagement and the pedagogic and the informational capabilities of those interfaces.

4. Conclusions:

New media technologies have substantially changed the way that we experience everyday life, their presence is ubiquitous and has become necessary to the good-functioning of the neo-liberal economic ideology that governs our ways of life. They have, in this way, become pervasive most every aspects of human life, they have allowed information to be disseminated instantly without geographic constraints, they have allowed instant access to knowledge and have permitted more efficient means of communication, all of whose functions one would arguably hardly imagine himself/ herself living without. As a result of the evolution of those technologies and they growing omnipresence, national and international institutions have had to adopt strategies in order adapt to those technologies and successfully integrate them for the betterment of their organizational structures, for example.

In this way, cultural institutions have had to adapt to those changes in order to remain relevant to new processes of knowledge dissemination and organizational behaviours. As we saw, new technologies have changed the museum so fundamentally that they might have contributed to changing the very definition of the museum (Tomiuc 2014, 35). New technologies have led to the creation of new professional positions, and have allowed new marketing, educational and experiential possibilities. Indeed, new media technologies have permitted museums and other cultural institutions to expand their influence digitally thanks to digital interfaces. Those interfaces have allowed the creation of specific cyberspaces – such as websites – that nowadays play a major in the way the institution is perceived by the public. Cyberspaces are also great tools to disseminate information with regards to the museum's program and services and for more practical information such as location. Cyberspaces have allowed cultural institutions to maintain a pertinent identity outside the physicality of its walls. Our epoch is constantly facing challenges related to information overload and the consequences that it might cause, which is the reason why, as we saw, it is paramount that cultural institutions implement adequate strategies for a flawless and relevant transmission of information, knowledge and cultural heritage. As we argued, it is crucial that the philosophy and goals of the cultural institution remain at the core of any endeavours, digital or not, and that the cultural institution provides exciting and engaging

content in order not to cause fatigue amongst an audience that is constantly exposed to new information, and in order for the institution to distinguish itself from the already-existing net of cultural content providers. We saw that the digital presence of the cultural institutions has been playing a complementary to the physical presence of the institution, and that it has allowed the creation of a new relationship with its audience, a relationship that is more dialogue-oriented (Tallant 2009)⁶⁵. In this way, the role that new media technologies are playing within the museum is substantial, and their potential in terms of presence and audience engagement is undeniable, as we saw, for example, with the way certain cultural institutions responded to the COVID-19 pandemic challenge.

In addition, we saw that new media technologies have, because of the ideology in which they were created and because of the relationship between ideology and national institutions, led to a shift in the way education is approached in the museum. We saw that new media technologies have allowed the implementation of new learning models that seem to be more visitor-centred (Marty 2008, 97), and that have the potential to provide more rewarding and richer experiences to its audience (Tomiuc 2014, 42). In order to do so, we also argued that it was necessary for a cultural institution to make sure that education remains at the core of every pedagogic endeavour, as it is stated in the ICOM's "Code of Ethics for Museums" (2017), in order for cultural institution not to fall into entertainment, to lose its educational importance and in order for it not to have detrimental consequences on the transmission of cultural heritage. We saw that it was paramount for a cultural institution to establish a good balance between education and entertainment for a good transmission of knowledge, and that over-stimulation might have hurtful consequences on the quality of an exhibition because of the entertainment criteria associated to processes of over-stimulation. Finally, we saw that new media technologies facilitated the learning by doing method, and that new media technologies' narrative potential might lead to a more profound audience engagement and learning experience (Tomiuc 2014, 42).

65 Tallant, Sally. 2009. "Experiments in Integrated Programming." *Tate Papers* 11 (Spring). Accessed May 5, 2020. <https://www.tate.org.uk/research/publications/tate-papers/11/experiments-in-integrated-programming>.

Moreover, we argued that immersive experiences might lead to a deeper audience engagement, because of their powerful narrative abilities. As a result, we saw that immersive narrative could lead the viewer to escape from reality, which might result in an increase in the viewer's sense of well-being (Stogner 2011, 119). In that chapter, we also brought our attention so as to how new media technologies brought the viewer to pass from a passive to an active state, hence favouring co-creation – that is to say the creation of meaning between the viewer and the exhibition content – within the museum space. We also put the emphasis on the perceptual shift that new media technologies led to, a shift that seems to lead the viewer away from the original artefact to the reproduced image of that authentic object. We argued that this shift, while inducing physical modifications, might provide richer intellectual and learning experiences to the viewer because of new media technologies' immersive and narrative potential. We shed light on the fact that those criteria might lead to enhancing learning in the museum and the audience's engagement.

In addition, we focused on the role that new media technologies play in rendering cultural institutions more accessible for people with physical disabilities. We saw that cultural institutions still face numerous challenges so as to the implementation of strategies that could enhance social inclusion, but that numerous institutions were actively working on implementing innovative solutions for the effective inclusion of audiences with physical disabilities within their program. We also shed light on the fact that new media technologies had real potential to providing tangible solutions for audiences with physical disabilities, according to numerous studies. We saw that it was more important for cultural institutions to adopt strategies that guaranteed social inclusion approaches on an institutional and organizational level, before implementing the (new media) tools that will facilitate social inclusion within their facilities. We saw that clear and balanced organizational strategies targeted at social inclusion improvements might contribute to allowing audiences with physical disabilities to get a real feeling of being genuinely included in the philosophy and program of cultural institutions.

Moreover, we argued that Artivive – the case study that we used for the purpose of our research – successfully achieved to engage the audience and to disseminate knowledge in an engaging, interactive and fun manner. We saw that several cultural institutions used the Artivive tool for edutainment purposes, and we concluded, thanks to the analyses of

several examples, that each edutainment instance personified a good example of what a well-balanced entertainment endeavour might look like. Each example achieved to effectively disseminate knowledge in relation to specific artefacts, each used interactive methods and different narrative strategies to convey important information in an entertaining way. In this way, Artivive is a seemingly effective tool to disseminate knowledge. We saw that, regardless of the fact that Artivive was seemingly not created to respond to inclusiveness issues revolving around cultural, it did have to potential to enhance learning and engagement among audiences with physical disabilities. We also concluded that Artivive, might facilitate co-creation, because of the way the tool prompts the viewer to become active in the experience, and because this, as we previously saw, might as a result, lead visitors to interact with one another, which might result in the creation of meaning and knowledge. Likewise, we saw that AR as an art form used with Artivive also contributed to changing the way art is experience in a cultural institution, and that this shift might undoubtedly result in behavioural changes in such spaces, hence breaking away from the traditional patterns of behaviour that one would find in the traditional white cube. Our case study was very pertinent in relation to the arguments that we made in the theoretical background and allowed us to solidify our hypotheses.

Furthermore, we saw that Galerie Rudolf Leeb was an innovative and dynamic contemporary art gallery, and that it strongly relies upon new technologies to engage with and widen its audience. The gallery believes in the importance that such technologies can have on the audience. During the four-month internship, Galerie Rudolf Leeb hosted several events, exhibitions and participated in two art fairs, all of whose were relevant to contemporary concerns. We saw that Galerie Rudolf Leeb attracted a rather wide range of audience segments and that most events organized at the gallery attracted numerous visitors.

The object of this report was to analyse the relationship between new media technologies, audience engagement and learning enhancement, and to shed light on the criteria, thanks to qualitative research, that argue in the favour of new media technologies, and those whose stance in this regard diverges. We strongly argued in the favour of the use of new media technologies to enhance audience engagement and learning experiences, while also considering the issues that certain processes might lead to (such as information

overload, or sensationalism). Already-existing theories were used to build the basis of our argument and of the research of this report, which were crucial to the analysis of our case study. This research did not lead us to the discovery or finding of new theories in this area of expertise, but allowed us to give prominence to certain theories and shed light on their relevance in our case study and in the practical analysis of the internship and the art gallery.

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