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Curating New Media Art Online and Offline Challenges

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Abstract

This dissertation was written as part of the MSc in Art Law & Arts Management at the International Hellenic University.

The institutional acceptability of interactive digital and new media art is, at best, sporadic and sometimes problematic, despite the continued attention of artists the last two decades. According to a literature review and survey of artist and curator perspectives, the theoretical nature and installation-level needs of interactive new media art are little understood. In addition, due to the rapid growth of the technologies that make this art form achievable, literature swiftly becomes obsolete. On the other side, institutional spaces seem to have an ellipses of technological tools in order to include different digital interactive artworks in their permanent collection. At the same time many digital artworks are exhibited in temporary exhibitions, creating new curatorial methods. Therefore, it was necessary for my research to use online sources, blogs and interviews in order to reflect the current situation of interactive digital and new media art, in Europe, the United States and Canada.

The research questions on how curatorial, maintenance and managerial tools can be used in order for a cultural professional to create a more accessible and meaningful exhibition in today's society and what are the challenges of such a process. For my experience as an active cultural professional in contemporary art, I consider the case study of the exhibition *Plasmata: Bodies, Dreams and Data* (2022) which was organized and supported by Stegi, Onassis Foundation in Athens. *Plasmata* is an interesting example that contains all the above questions and concerns in multiple levels. Of course in order to understand the curatorial norms of new media art today I had to search for previous practices, since the 60s and find its historical roots.

This research has the potential to improve our understanding of the relationship between new media art and interaction and online - offline presence, within the framework of art history and contemporary curation, institutional and networked (non-institutional) administration.

Keywords: curation, art history, new media art, digital art, museums, institutions

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Preface

Having an Art History and Theory background and working in the cultural sector as a Producer, my aim by pursuing this master's title was to expand my knowledge into legal and managerial issues, essential in my working environment. What intrigued me the most was the contemporaneity of new media and digital art, not only by its interesting and complex mediums but mostly by the legal, managerial but most importantly curatorial issues that arose, reflecting our current situation not only in culture but as individuals and societies as a whole.

Throughout this wonderful journey I was inspired by many multidisciplinary people. I would like to thank the supervisor of this work, Prof. Themis Veleni for her support and insight but most importantly for her contagious enthusiasm for new media art, that I was not aware that I could also have; I thank her sincerely for that and I will try to keep this enthusiasm alive.

I would like to express my gratitude and appreciation to my professors and dear classmates for broadening my horizons and thoughts to the most creative directions possible. I am more than lucky to have met them. I would also like to thank my colleagues for their comments, corrections and support. Last but not least I would like to thank my family and friends for supporting me so generously every step of the way. Without them nothing would have been possible.

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1. Introduction

Since the 60s institutions of cultural heritage in Europe, the United States and Canada, that are examined, have continuously developed various methodologies for the successful management of digital and new media art, but many of these works may fall into preservation issues long before they enter institutional collections. Artists and curators of what it is referred to as *networked alternatives* (i.e. non-institutionalized) such as small scaled galleries and art platforms, have assumed the major responsibility of digital curation of artworks and accompanying archive information.

These works of art were created and presented using rapidly advancing digital and networked technologies of their times; as such, they require both ordinary and extraordinary digital curation practices to ensure their long-term survival, such as the replacement of storage media on a regular basis using contemporary and technologically updated contemporary tools. This dissertation examines the dynamic connections between artists and curators in the early phases of digital curation of digital and new media art, underlining the important role of these two professions in the creation, presentation and ongoing maintenance of these works as well as the power of interactivity with the public when it comes to digital and new media exhibitions today online as well as offline.

In this dissertation, the challenges of caring (either maintaining artworks or curating an exhibition) for digital and new media artworks are analyzed, as well as the repertoires of practices that artists and curators employ individually and collectively to solve these challenges. These routines are explored via the theoretical lens of information worlds, focusing on how humans interact with a wide variety of information sources and build distinctive information practices in response to a multitude of social settings.

What intrigues me the most is how these curatorial practices flourish within the art world, where they continue to develop and are performed in ways that reflect and, in some cases, impact major transformations in the art world. Digital art, more than ever before, has a social impact, focusing on today's issues such as climate change,

injustice, discrimination, sexuality and gender through the lenses of technology. As a crucial step toward assuring the continuous circulation of digital and new media artworks, this study seeks to comprehend the obstacles and current curatorial practices of this particular and constantly changing art field.

1.1 The Original Guardians of Digital Art

Art has always depended on *networks*, webs produced by the combined efforts of individuals performing a wide range of roles in the application of instruments, execution of processes, and sharing of knowledge required for the creation, reception, and preservation of works of art. Such cooperation patterns, according to Becker¹, define art worlds. Cultural professionals, such as artists, curators, art critics, handlers and conservators as well as gallery visitors are among the various groups that participate in these collaborative activity networks. Specifically, the *teamwork* required for the preservation and protection of artworks across time serves as the foundation for countless other endeavors in the art world. In the case of an institution, both modern art and antiquity coexist. For art criticism and art history study, a tangible archive of artworks and related archival materials is indispensable. The creative process depends on referencing and reacting to earlier creative activity, which is shaped by research and direct exposure to historical works.

Over time, conventions arise to govern and regulate cooperative exchanges between diverse art world sectors, a typical example would be when a curator consults a conservator and vice versa. As institutions of cultural heritage collect, display and preserve digital and new media artworks, they encounter constraints which they guide their conservation strategies and managerial practices. Becker² highlights that the adoption of new technologies involved in the making of art is a significant driver of change, since they build new cooperative behaviors and open the field in multidisciplinary. As discussed by Saaze, Wharton, and Reisman³, the Modern Art Museum (MoMA) has been actively campaigning for the adjustments required to

¹ Becker, H. (1982) *Art Worlds*, University of California Press, Berkeley.

² *Ibid.*,

³ Saaze, V. van, Wharton, G. and Reisman, L. (2018) "Adaptive Institutional Change: Managing Digital Works at the Museum of Modern Art." *Museum and Society* 16 (2): pp. 220–39.

collect, exhibit, and care for digital and new media artworks⁴. The latest exhibition on that topic was entitled: “*New Order: Art and Technology in the Twenty - First Century*” (MoMA, 2019) (Figure 1). This exhibition, based on the press release “*looks at the ways in which contemporary artists use—and misuse—tools and forms. The show features works made since the turn of the millennium that push and challenge the boundaries of technology: upending systems, experimenting with materials, and ultimately inventing novel techniques and substances.*”⁵ Something similar to the case study of *Plasmata*; that I will present in the next chapters.

To manage artworks consisting of complex digital objects, most of the time they need to invent individual and unique methods of installation, maintenance and storage. Thus, it has been necessary to extend information storage and collection management systems, as well as to create new positions for individuals with technical expertise.

Numerous notable digital works can be discovered online, in the artist's archives, or through non-traditional distribution routes. However, many digital artists intentionally avoid working in traditional art environments (museums, institutes and physical galleries). Numerous contemporary works of art are produced and disseminated via internet networks, making it challenging to categorize them as objects or preserve them in permanent collections because of apparent *immateriality*.

Many artists of the 20th century experimented with techniques that did not immediately result in the creation of physical objects, as known until that time (painting, sculpture, installation and photography). The emergence of digital and networked technology has raised new challenges regarding the relationship between information and art. This constant movement of the artwork in all its material forms, describes the image of networks in which artworks move and is a testament to Seth Price's *Dispersion* (2002–ongoing), an essay focusing on the history of art distribution

⁴ MoMA (2019) *New Order: Art and Technology in the Twenty - First Century*. Available at: <https://www.moma.org/calendar/exhibitions/5033> (Accessed: 19 December 2022).

⁵ *Ibid.*,

systems that he has distributed online as a PDF⁶ and displayed in physical gallery spaces.

Artists may also utilize networked technologies as a kind of institutional critique. To study the possibility of art made on popular communication platforms and to attack the elitism and exclusivity of museums and galleries, many Internet artists of the 1990s and early 2000s, like Heath Bunting, Natalie Bookchin, Jodi or jodi.org, Alexei Shulgin, Olia Lialina, Evan Roth, and UBERMORGEN.COM⁷, utilized digital and networked technology to act outside of institutions.⁸ Something similar to the Salons of the 19th century or the avant garde movements (Dada and Fluxus) and the later performance pieces in the 70s and 80s (e.g. Vitto Acconci and Chris Burden or the Viennese Actionism) sometimes completely out of the context of museums and institutions, with a strong anti-art and critical point of view towards their contemporary art world, its boundaries and structural mechanism.

The difficulty for museums in purchasing a web-based artwork, fulfills the artist's principle aim to exist outside of institutions starting with its own medium. If a web-based artwork is added to a museum's permanent collections, preservation and ownership concerns will arise, making the second more complex, since these artworks were designed and published in the sphere of the Internet, reducing the collection's value in the art market. Historically we can observe these kinds of concerns also in installations (usually with ephemeral materials like Land Art) and performances (the immateriality of the media and the copyright of its documentation, such as pictures and videos).

Existing strategies and methods for preserving such digital artworks, particularly those that are not part of established institutional collections, as web-artworks are frequently insufficient. Serexhe⁹ argues that the radical shift of visual art brought by new technologies necessitates a change in institutional practices (in curation and

⁶ Price, S. "Dispersion." NET ART ANTHOLOGY: Dispersion. Available at: <https://anthology.rhizome.org/dispersion> (Accessed 15 December 2022).

⁷ Artsy website, *Net Art*. Available at: <https://www.artsy.net/gene/net-art> (Accessed: 20 January 2023).

⁸ Stallabrass, J. (2003) *Internet Art: The Online Clash of Culture and Commerce*, Tate Publishing.

⁹ Serexhe, B. (ed.), (2013) "Born Digital—But Still in Infancy" *In Preservation of Digital Art: Theory and Practice*, Vienna, pp. 21-34.

preservation). The literature sources has long addressed the challenges involved in the preservation of digital artworks, without ignoring their interactive and interrelated characteristics.¹⁰

This necessitates a shift away from conventional custodial models of collecting and preserving digital and new media artworks. Emergent patterns of collaborative activities, where artists, curators, and others are actively involved in the exhibition production and maintenance of the artworks in the frame of alternative exhibition spaces, where permanent collection or the market is not the aim.

Thus, artists themselves are the principal custodians of digital and new media artworks. Also, the artists are the ones who created cooperative activity patterns with other related professions (gallerists, curators etc.) that operate exhibition spaces and platforms outside of the conventional institutions as we know them (e.g. museums and foundations) and the art market.

Even when digital and new media artworks are acquired by institutions or collectors, artists may still have the obligation to offer ongoing upkeep of their work. The term *digital curation* is used throughout the dissertation to refer to this broad collaborative action that bridges the gap between library and information science with institutional curatorial traditions and practices. The process of creating, selecting, displaying, and contextualizing digital artworks requires the management of data and digital objects via updated and sometimes complex information systems.

Networked exhibitions necessitate that artists and curators back up their work on hard drives or in other storage spaces (e.g. online). The labor of digital curation that commences with the production and first presentation of digital and new media artworks sows the seeds for the continuous upkeep of these works by their creators, curators, and galleries.

¹⁰ Besser, H. (2001) "Longevity of Electronic Art." *In Proceedings of the International Cultural Heritage Informatics Meeting*. Available at: <http://besser.tsoa.nyu.edu/howard/Papers/electart-longevity.html> (Accessed: 16 December 2022).

Cooperative digital curation activities engage others and are intimately linked to the activities of other art world groups, organizations, and institutions, despite the fact that artists, gallerists, and curators are primarily responsible for the care of these artworks. This research aims to contextualize artists' and curators' digital curation efforts within the larger information universes they inhabit.¹¹ A digital curation of artworks and related historical resources demands artists and curators to gain new knowledge from varied sources, communicate with diverse groups, and collaborate closely with other creative professionals and computer scientists, and programmers. Cultural professionals participate in the visual arts and other digital social spheres through the creation and application of digital curation methods. All of these diverse sorts of information and interactions influence the way in which cultural professionals approach the preservation of digital and new media art.

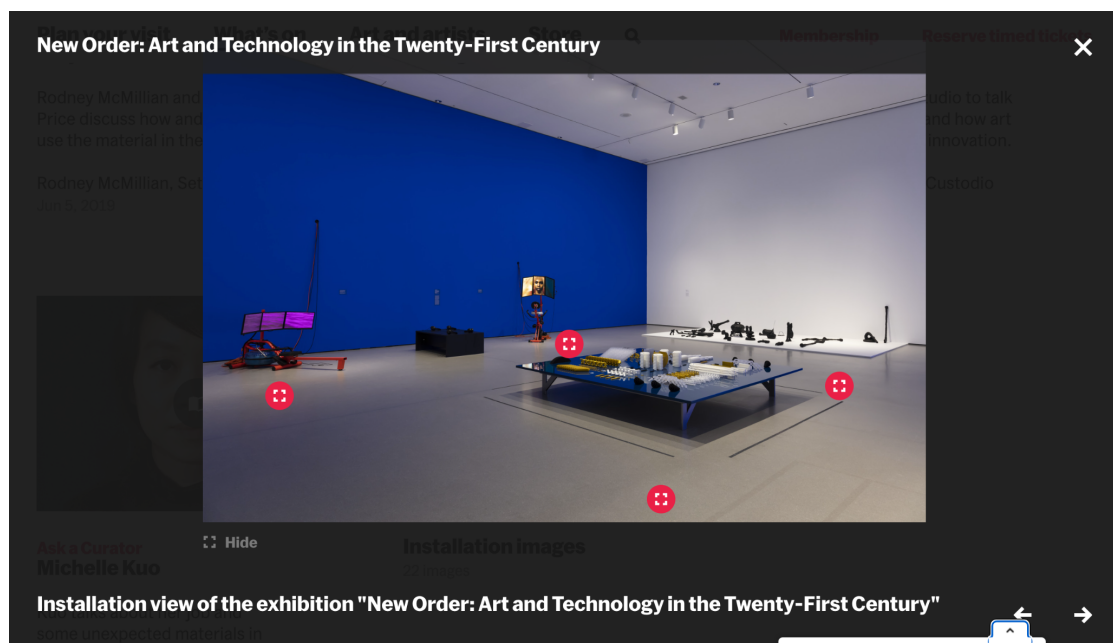


Figure 1: Screenshot from the official MoMA website, installation image from the exhibition: *New Order: Art and Technology in the Twenty-First Century*. Available at: https://www.moma.org/calendar/exhibitions/5033?installation_image_index=12

¹¹ Jaeger, P. and Burnett, G. (2010) *Information Worlds: Social Context, Technology, and Information Behavior in the Age of the Internet*, Routledge, New York.

1.2 Curating in a New Media Age: A Retrospective

Despite the fact that the history of new media can be traced back to the 1960s, new media art is commonly regarded as a relatively recent phenomenon in the art world. Numerous artists, including John Cage, Allan Kaprow, Roy Ascott, Desmond Paul Henry, E.A.T., and others, as well as curators and theorists, including Marshall McLuhan, Jasia Reichardt, Lucy Lippard, and Jack Burnham, have been interested in technological themes, such as interaction, multimedia, electronics, kineticism, cybernetics, and technology.

Since then, these technological mediums were a completely unknown territory in the art world. As a result, the context transformed for artists, intellectuals, and curators alike. This shift in aesthetics is reflected in our interpretations of artworks, exhibitions, and cultural output as a whole today, as well as in the language used to construct them, since new theoretical tools needed to be invented¹².

“Les Immatériaux” (1985) was the title of Jean-Francois Lyotard's exhibition at the Centre Pompidou, a defining moment in the museum's history. Lyotard's 1979 magnum opus, *“The Postmodern Situation: A Report on Knowledge”*, examined how improvements in communication, mass media, and computer technology had transformed the human condition. The purpose of the show was to demonstrate the impacts of such a cultural and social revolution, as well as to create a fresh setting filled with novel ideas. In a maze-like exhibition space, *“paintings and sculptures were still visible,”* says Nathalie Heinich, *“but they became part of a much broader set of information consisting of signs, texts, sounds, and mechanical items.”* The introduction of the idea of *immateriality* at a time when computers were not user-friendly as today, served to highlight the inherent challenges involved with the use of technology in the creation and presentation of art. In this instance, curation may have acted as Lyotard's philosophical quest, which despite its inadequacies ushered in a new era of exhibition creation.

We may watch a new generation of artists and curators dealing with new technologies in a changing setting by the mid-1990s. Since "new media" is such a

¹² Langdon, M. (2014) *The Work of Art in a Digital Age: Art, Technology and Globalisation*, Springer, New York, p. 7.

broad term, I will quote Olia Lialina's definition: "*a field of study that has developed around cultural activities, with the computer playing a key role in production, storage, and delivery.*"

There is a need for new media art theorists to build a contextual umbrella for the exploration of new media art practices. Due to the constant hybrid nature of new media art, it is almost impossible to be contextualized under a definitive rule.

Curators face additional challenges due to the immateriality and interactive nature of computer-based artworks, since their ongoing technological development is inevitable. Virtual reality installations, web-based and VR projects are all examples of new media art, where computers are always a vital medium for their creation. Also, conceptual and network-based practices involving software coding, are part of the curatorial concerns. Due to the fact that the majority of new media works defy physicality, it might be difficult to establish an exhibition space that does honor their adaptability and vitality. It is becoming increasingly apparent that novel curatorial expressions that completely incorporate the concepts of new media are required.

Web-based art endeavors frequently take the form of organized online exhibitions. The recent history of new media art shows that the introduction of the World Wide Web (WWW) was beneficial to web artists not only due to the new possibilities the medium had to offer, but also because it gave the freedom to expand from the traditional art spaces. "*Desktop Is*" (1997), curated by the artist Alexei Shulgin¹³, was one of the initial online exhibitions of its type. Shulgin requested screenshots from various desktops and made an online archive, a virtual gallery of desktops, accessible only on the Internet.

At the same time, the innovations made possible by the Internet were vital for those in charge of displaying works of art. This new way of thinking about distribution and communication enables the dissemination of not only artworks but also curatorial practice. Numerous online artworks and exhibitions have been and continue to be

¹³ Mirapaul, M. (1997) *With the Desktop as a Canvas*, New York Times. Available at: <https://archive.nytimes.com/www.nytimes.com/library/cyber/mirapaul/121897mirapaul.html> (Accessed: 16 December 2022).

representative of *"immediacy in contemporary culture"*.¹⁴ The exhibit *"Beyond Interface"* (1998) is a superb example of this. In the exhibition's archival materials, curator Steve Dietz writes: *"This online exhibition presents a basic concept. Some artworks are created only for the Internet."* After that, things quickly grew more complicated. *"Beyond Interface"* examines a few of the more complex issues but does not claim to be a full treatment of the subject. *"Beyond Interface's"* primary goals are to highlight remarkable examples of artistic production on the Internet and to promote a greater understanding of this art form and its surroundings. Steve Dietz was self-aware enough to see the dangers involved with curating online-only exhibitions.

Nonetheless, this is frequently the case when a brand-new product is presented. By concentrating on both the artwork and its surrounding context, Dietz hopes to call attention to the fluid and hybrid nature of web-based artworks and the Internet's role as a platform for artistic creation, curation, and cultural exchange. Distributed curatorial practice online may conform to the egalitarian and decentralized ideals of its medium, but it risks limiting its reach to a minority of internet users, especially in the 90s. Web-artists even though they tried to escape institutional boundaries they did not escape elitism, since private computers were much more expensive than today and only few could afford them in the comfort of their homes and the access to the Internet was also expensive.

On the other hand, curating exhibitions of new media work for "offline" venues is one of the most prevalent methods for displaying such work. Since the 1980s, numerous venues have emerged to host events and exhibitions of new media art. This includes the V2 Institute for Unstable Media in the Netherlands, the Furtherfield Gallery in London, the Ars Electronica Festival in Austria, and the ZKM in Germany, among others. Only a handful of institutions, like the San Francisco Museum of Modern Art, the Whitney Museum of American Art, and the Baltic, have demonstrated a genuine interest in the work of new media artists. *"Database*

¹⁴ Gere, C. (2008) "New media Art and the Gallery in the Digital Age", *New Media in the White Cube and Beyond. Curatorial Models for Digital Art*, in Paul C. (ed.), University of California Press, p. 23.

*Imaginary*¹⁵ was a 2005 exhibition at The Banff Center in Canada, curated by Sarah Cook, Steve Dietz, and Anthony Kiendl. The exhibition included pieces from 1971 to 2004, such as *Visitors' Profile* (1971) by Hans Haacke¹⁶, and "*Lungs- London.pl*" (2004) by Graham/Mongrel, a software-code poem based on William Blake's (1789) poem. Therefore, "*Database Imaginary*" was an interesting exhibition, since it tried to establish connections between various forms of new media art that had some conceptual commonalities by also combining a variety of technological mediums.

Overall, the exhibitions allowed visitors to do two things: (1) explore how ideas emerge across various mediums, and (2) search for links between new media and traditional creative forms. Developing ongoing narratives that chronicle the historical progression of an artwork exemplifies the changing nature of the curatorial practice. "*Database Imaginary*" is an example of an exhibition that can fill the voids left by museums unable to display new media art due to issues regarding its place in the conventional scope of art history.

Due to the mixed nature of new media art, there is no singular approach or canon for curating this style of work. According to Christiane Paul¹⁷, "*new media art is more process-oriented than object-oriented*". Thus, it is essential that the audience comprehend the creative process behind the piece and follow the experience of a journey that a new media artworks has to offer. This *process-oriented* point of view can be found in many contemporary curatorial practices and is also presented in the exhibition - study case of *Plásmata*, that will be discussed further below.

¹⁵Rhizome Blog (2004) *Imagine all the Data...* Available at: <https://rhizome.org/editorial/2004/nov/17/imagine-all-the-data/> (Accessed: 19 December 2022).

¹⁶ Artforum, *Hans Haacke's Gallery Visitors' Profile*. Available at: <https://www.artforum.com/print/197306/hans-haacke-s-gallery-visitors-profile-36288> (Accessed: 19 December 2022).

¹⁷Gere, C. (2008) "New media Art and the Gallery in the Digital Age", *New Media in the White Cube and Beyond. Curatorial Models for Digital Art*, in Paul C. (ed.), University of California Press, p. 65.

1.3 Research Objective

This dissertation focuses on the case study of the temporary exhibition *Plásmata: Bodies, Dreams, and Data* (2022) in Athens. The exhibition promoted the multiple possibilities of our bodies in a virtual and technological reality, presenting 25 new media artworks in various mediums (VR, robots, LED screens, interactive sound installations etc.) in one of the biggest parks of the city, creating an alternative environment for exhibiting such artworks, out of the traditional white cube. Curators, in this case, Irimi Mirena Papadimitriou and the group FUTUREEVERYTHING, usually select alternative and experimental spaces, many times not art related in the digital curation, working outside of the conventional institutional space. In this case the works were physically out of the venues of the supported foundation (Stegi, Onassis Cultural Foundation). Artists and curators in the field of digital and new media art have long recognized the opportunities afforded by digital and new media technologies, utilizing them not only to create new aesthetic experiences within individual new media works but also to disseminate works to a large audience that is not always trained in contemporary art, especially in new media and digital art.

The curators of *Plásmata* are outspoken in their criticism of the conventional exhibition formats for contemporary art, particularly digital and new media works. The supported foundation (Stegi Onassis) is programming only temporary exhibitions and events, creates open calls for artists, and offers scheduled programming annually and is the only foundation in Greece that supports the dialogue between culture, science and technology.

In truth, by locating themselves in this "in-between" zone of art and technology, the curators as well as the foundation draw attention to the materiality of digital artworks, and throughout this essay, the implications of the curatorial methods and interactive processes with the public of *Plásmata* will be discussed.

These observations, however vague they may be, aptly represent the ever-changing and moving nature of the artworks presented in *Plásmata* in a natural space (public park) where in many cases the presence of the audience is crucial in order for an artwork to exist. *Plásmata* is a fluid endeavor, transforming before the eyes of the

visitor but also the visitor can instruct the artwork by their moves or voice via Artificial Intelligence (AI).

Artists' and curators' in digital curation practices involve a vast array of techniques that can be categorized as digital curation styles and are developed and applied in light of a variety of potential goals pertaining to the production, selection, presentation, and maintenance of digital artworks. These digital curation repertoires interact with *Plásmata* in ways separate from commercial galleries and museum's curating.

Throughout the dissertation, the concept of *network alternatives* is developed to describe *Plásmata* and other contemporary alternative or artist-run art spaces. These examples prioritize communicative exchange and creativity with digital and interactive technologies aiming to explore new artistic production methods or even expand the boundaries of technological means used in the arts so far. Artists and curators play a significant part in the formation of cooperative activity patterns for the production, display, and preservation of digital and new media art. This pattern involves individuals and groups from outside the art world, rarely seen in conventional art settings.

According to Apple¹⁸, New York artists in the 1960s and 1970s were the firsts to establish alternative exhibition spaces. This change was easily possible by transforming their own studios into pop-up galleries. Another way was to repurposing dilapidated buildings into concert halls in an effort to expand the boundaries of the traditional art space and question the rules of the art world as well as the urban environment around them, which can easily be seen as a gesture of activism.

At the same time, collectives of artists from diverse backgrounds congregated in non-traditional spaces like "*The Kitchen*" by Franklin Furnace, to create performances, sculptures, and other works that would not be appropriate for a museum or a commercial gallery. Similarly to *Plásmata*, the selection of a large park

¹⁸ Apple, J. (1981) *Alternatives in Retrospect: An Historical Overview 1969-1975*, The New Museum, New York. Available at: <https://archive.newmuseum.org/print-ephemera/6427>.

with a sometimes abandoned, decadence profile and many times dangerous place in the heart of Athens, presented by the media as “wicked” and “dangerous”, underlines the urgency of such interventions in public spaces through the lenses of art.

Artists from all over the world, not simply involved in the New York art scene of the 1960s and 1970s, have sought to construct or grab control of their own exhibition and dissemination contexts, circumventing traditional art markets and institutions. Similarly, these objectives have prompted artists to experiment with a vast array of digital and technologies, most notably in the 90s, the Web, provided them with the means to create a sense of virtual communities that were a fertile ground for artistic exchange, among closed groups of artists or even reaching a larger audience around the globe. In a similar way today the large audience of such a big scale exhibition was reached through social media platforms, the today’s worldwide network.

Net art, or net-based art, is defined by White¹⁹ as “*artistic participation in network culture*”, meaning that networked technologies played the role of an incubator for a wide range of creative activities and art forms. Artists represent aspects and fragments of the social dimensions of these networks through works that require active participation of the audience which, according to White²⁰, is essential to net art and the same applies to the interactive new media artworks today.

While internet-based art occasionally interacts with traditional art institutions, it has a greater impact on non-institutional exhibition locations and surrounding contexts. According to Williams²¹; the sociology of culture should concentrate on non-institutional forms of cultural production in order to define distinctive structures that have no apparent linkages to or expressions within the topic of study.

¹⁹ White, M. (2003) “The Aesthetic Of Failure: Net Art Gone Wrong.” *Angelaki* 7 (1): pp. 173 - 94.

²⁰ Ibid.,

²¹ Williams, R. (1997) *Television: Technology and Cultural Form*. Edited by Ederyn Williams, Routledge, London.

Williams²² argues that it is essential to identify the particularities and possibilities of these networks, such as “*the technologies used, the practices performed, and the socioeconomic factors at play*”, which are relevant to the success of many artist-run initiatives, at the outskirts of traditional art institutions.

In this essay, an overview of *Plásmata* as an interactive new media exhibition outside of a traditional institutional setup is presented and criticized. The purpose of this paper is to demonstrate how *Plásmata* functions as an example of new media exhibitions today by focusing on the social and technological issues that influence how the curators of *Plásmata* and the participant artists interact not only with the public, but with the city itself.

The foundation, Stegi Onassis runs more like a platform than a foundation, with producers and curators inviting artists to participate in each theme and hosting various related events. This foundation is a *platform* because it encourages artists to experiment with digital tools. Therefore, a variable media ecology is created, open for experimentation.

Goriunova's²³ definition of “*art platforms*” are assemblages of human and machine procedures, organized by “*networked systems*” aiming to utilize creativity and experimentation. Art platforms draw from and emphasize a vast array of creative practices involving digital and networked technologies, living in the liminal zone between that conventionally labeled art and the as-yet-unnamed aesthetic practices that will certainly emerge. This is consistent with Buckley and Smith's vision for a platform: one that is focused on a computing system or collection of hardware and software, but rather serves artistic experimentation with the ultimate aim of discovering and spreading novel forms of artistic expression between the artists.

Art platforms in this context are not computer systems in and of themselves, but rather organizational endeavors that focus on and promote the creative energy and products that arise from a series of complex interactions of many individuals as well as technologies. Through networked alternatives and the digital curation effort

²² Ibid.,

²³ Goriunova, O. (2012) *Art Platforms and Cultural Production on the Internet*, Routledge, New York.

needed in sustaining these living platforms, as individual, societal, and technological components all combined to achieve an artistic output, in other words, artistic digital expression.

1.4 Research Methodology

This inquiry is a case study of the exhibition *Plásmata*, including its curators and their artists and of course the artworks selected. I relied on a situational analysis technique for this study's design and definition of its analytical units²⁴. The authors define a scenario as a "*permanent arrangement of relations*" including several elements, such as persons, machines, organizations, societies, and anything else that may influence or contribute to the situation. Traditional techniques for case study research require the researcher to determine how to define the scenario and which streams of information are pertinent to answering the research questions in the absence of stated criteria for limiting the setting.²⁵ This study investigates the conditions under which artists digitally curate their works and associated historical resources, with a focus on the information sources, other individuals, and technologies involved in the development and performance of digital curation and interactive practices together with the selected space that are presented.

1. Literature Review

This literature review attempts to present a picture of the current state of interactive new media art in academia. I do not want to imply that anyone is developing strategies for displaying or curating interactive new content. However, I would like to draw attention to the fact that there is remarkably little published about curation and display, and that what does exist appears to be restricted to a few study avenues. This investigation of context pulls from a wide range of sources, including books, articles, websites, interviews, case studies, curatorial manifestos, and dissertations,

²⁴ Clarke, A. E., Friese, C. and Washburn, S.R. (2018) *Situational Analysis: Grounded Theory After the Interpretive Turn*. 2nd ed. Thousand Oaks, CA: Sage.

²⁵ Yin, R. (2014) *Case Study Research: Design and Methods*. Fifth edition. Thousand Oaks, CA: Sage.

all of which address the issues inherent in the presentation of interactive new media art.

I will begin with a discussion of the current status of academia within the curatorial framework, move on to a literature review important to exhibition design, and close with some ideas on case studies and the afterlife of exhibitions. Upon completion of this literature review, I believe it will be evident that the study I propose is not only appropriate, but also important and helpful to the fields of art history, curation, and exhibition design.

An analysis of the present literature reveals multiple tendencies. On the one hand, curating interactive new media art-related scholarly works are gaining prominence. However, the vast majority of academics continue to disregard this knowledge. In addition, ontological and semantic conflicts continue to be the major responsibility of the authors involved, while practical considerations on the topic of curation are often overlooked. Lastly, these methodologies remain firmly rooted in the discipline of museum studies/museology, but the field of exhibition design is definitely under-represented, if not entirely overlooked, from an art historical standpoint.

According to Domenico Quaranta²⁶, Christiane Paul²⁷, and Michael Connor²⁸, new media art and its interactive variation have remained on the periphery of the art world. This separation of interactive new media art arises from the difficulty of exhibiting it in a museum context²⁹. This view is shared by other scholars, including Beryl Graham³⁰, Victoria Bradbury³¹, and Aneta Krzemien³².

²⁶ Quaranta, D. (2012) *What's (Really) Specific about New Media Art? Curating in the Information Age*, *Rhizome Blog*. Available at: <http://rhizome.org/editorial/2012/dec/6/whats-really-specific-about-new-media-art-curating/> (Accessed: 28 November 2022).

²⁷ Paul, C. (2015) *Digital Art. Third edition*, Thames & Hudson, London.

²⁸ Connor, M. (2016) 'Rhizome Artbase', in Hoare, N., Milliard, C., Niemojewski, R., Borthwick, B., and Watkins, J., (eds) *The New Curator*, Laurence King Publishing, London, pp. 220 - 224.

²⁹ Paul, C. (2015) *Digital Art. Third edition*, Thames & Hudson, London.

³⁰ Graham, B. (2013) *Exhibition Histories and New Media Behaviours*. Intellect.

³¹ Bradbury, V., Ghidini, M., Hunter, R., O'Hara, S. and Smith, D. (2013) 'CRUMB doctoral research: reflections on creating and exhibiting digital art', in Cleland, K., Fisher, L., and Harley, R. (eds) *Proceedings of the 19th International Symposium of Electronic Art*. Sydney, p. 6. Available at: <https://ses.library.usyd.edu.au/handle/2123/9818> (Accessed: 17 December 2022).

³² Krzemien Barkley, A. (2014) *Contemporary models of curatorial and institutional praxis : a study of the Foundation for Art and Creative Technology (FACT)*.

50 years after the first examples appeared (in 1965), interactive new media art has established a strong historical legacy, sustaining the artistic objectives of both Dada and Fluxus³³. Therefore, it is vital to guarantee the form is effectively reflected both in academics and the institutional setting.

This study will be divided into three pieces, with each portion focusing on a different aspect of presenting interactive new media art to the public. The first section, titled "Curatorial Context," examines the present state of the literature about the curation of new media art and its interactive aspect. As such, the texts examined here address the ethereal and ever-changing nature of new media art, its definition, and the driving theoretical concepts. Under the subject of "Exhibition Design", I will address the breadth and depth of the relevant literature. This section includes both literature pertinent to interactive new media art and more general publications on exhibition design, highlighting the importance of cross-disciplinary study and practice that make interactive new media art so difficult to deal with. Under "Memory Making", I will conclude by discussing how institutions cope with the creation of memories and the preservation of the history of interactive new media art exhibitions.

2.2 The Exhibition Context

2.2.1 Description

Looking at the current curatorial environment, we may discern a few tendencies in the manner in which interactive new media art is being studied. The first characteristic that stands out is the excessive quantity of citations given to a few eminent professors. The new media experts Christiane Paul, Steve Dietz, Beryl Graham, Sarah Cook, and Jon Ippolito routinely convene to debate current events. In addition to less often recognized authors, journal papers, blogs by well-known curators, and doctoral dissertations were consulted.

The significance of mobile technology is changing how web content is consumed and its pervasiveness in the public sphere cannot be overstated, yet there is still Institutional resistance to removing the barrier that web art is a private affair best

³³ Gere, C. (2008) *New Media Art and the gallery in the Digital Age*, Tate Papers, pp. 13 - 25.

done on a home computer³⁴. Examples such as these, in which technological breakthroughs have rendered obsolete previously held views, abound in the literature and help to show the significance of keeping this body of knowledge current.

Finally, courses on the curation and presentation of new media art have begun to be offered in a variety of formats, reflecting the increasing demand for curators of this type of content. The Node Centre offers a course taught by curator Pau Waelder, and the University of Salford offers a 30-credit course entitled *Digital Curation and Contemporary Art: Curating in Contemporary Contexts*. This tutorial, on the other hand, focuses on a particular area of new media art, whereas the previously stated courses cover a larger scope.

2.2.2 Neomateriality

Digital Art is a comprehensive assessment of digital media art, its history, and its issues written by Christiane Paul, an expert in the industry. Paul³⁵ gives a clear and insightful analysis of the paradigm shift that new media art introduces to art history. This transformation, according to Paul, includes the shift in experience and interpretation that occurs when a piece of new media art - she mentions internet art, but it could apply to any new media experience involving a significant time commitment or modesty - is removed from the private space of the internet user and placed in the physical public space. As a result of this paradigm change, the legitimacy of internet-dependent new media production in a museum context is brought into question. Paul, however, remains optimistic and contends that the presence of new media art in conventional settings will aid in its preservation and expand its audience. Paul's concerns are somewhat tempered by the fact that the vast majority of contemporary museums offer free Internet access to visitors.

Furthermore, the ubiquitous availability of the internet and the range of gadgets available to the average museum visitor have rendered many concerns around access

³⁴ Aggersberg, B. (2017) *A Critical Inquiry: Paintbrush to Pixels; Developing Paradigms In the production and consumption of New Media Art*. University of Wales Trinity Saint David. Available at: <http://repository.uwtsd.ac.uk/732/> (Accessed: 28 November 2022).

³⁵ Paul, C. (2015) *Digital Art*, third edition, Thames & Hudson, London.

and privacy moot. Despite these slight mistakes, the book's thorough coverage of the region and all of its subtleties make it invaluable. Paul's³⁶ advice on installation, maintenance, and its fragility is as pertinent and significant now as it was when he initially delivered it.

Christiane Paul introduced the art world to the concept of *neomateriality* at the 2015 International Symposium on Electronic Art³⁷. Paul seeks to dissociate new media art from ideas of the *immaterial*, *ethereal*, and *abstract* by reframing it in terms of its materiality. Therefore, we must recognize the materiality of digital networked technologies and their effects on the material reality that surrounds us, including humans and the environment, she argues. Paul³⁸ limits neomateriality in this context to the interplay between digital technology and the real world, namely how the digital representation of the physical world develops its own materiality.

Paul's theory³⁹ regarding the ephemeral nature of contemporary media came to play an essential role in the work. In her book *Digital Art*, Paul⁴⁰ argues that the popular notion of digital art as ephemeral and untrustworthy is wrong. Performance art, like other forms of time-based art, is fundamentally ephemeral and typically only exists in recordings made prior to or after the event. While it is true that digital artworks with a focus on the process are ephemeral, technological advancements have increased the possibility of documenting the procedures required in making a time-based work. The instability of digital art is a result of the high rate of technological and software advancement. This includes newer versions of operating systems and web browsers, as well as greater screen resolutions and updated versions of both.

Curation must account for this type of instability, but Paul ignored other ways in which modern media is unstable. If partners join or depart a project, if new iterations or variations of a work are created, or if the work undergoes modifications as a result of an iterative process in which the audience, the artist, or the artwork itself

³⁶ Ibid.,

³⁷ Ibid.,

³⁸ Ibid.,

³⁹ Ibid.,

⁴⁰ Ibid.,

participates, attributions may need to be revised. All of these elements, as well as any others that may emerge in the future and be hard to foresee, render new media unpredictable and necessitate a unique approach.

2.2.3 Collecting and Categorizing Data

In his publications on the subject, Steve Dietz⁴¹ discusses a variety of issues, including the absence of a standard vocabulary and classification for new media art. "*Collecting New Media Art: Just Like Anything Else, Only Different*"⁴² stands out among his many publications. In it, Dietz⁴³ offers a *process-based* definition of the new media art that distinguishes it from "*technology replicas*" that only copy other mediums without any computational process that distinguishes them.

Through his three categories: *interactivity*, *computability*, and *connectivity*—he also helps with the categorization of work created in the realm of new media. *Interactivity* is used to characterize works that respond to the user's activities⁴⁴. Generating and changing works using computer programs is referred to as *computability*⁴⁵. Finally, *connection* refers to the manner in which certain types of new media art can be available remotely or connected with other technology, thereby promoting new opportunities for expression. The taxonomists Sarah Cook and Graham⁴⁶ based their work on these three concepts.

2.2.4 Temporal, Spatial, and Other Museum-Related Considerations

In the book entitled: "*Rethinking Curating*" (2010), Beryl Graham and Sarah Cook addressed the intricacies of new media art and their implications for exhibition curation in further detail. Until today, this is one of the most widely quoted books in academia. Chapter seven does address certain practical concerns, but only in a single

⁴¹ Dietz, S. (2005) *Collecting New-Media Art: Just Like Anything Else, Only Different*. Available at: http://www.yproductions.com/writing/archives/collecting_new_media_art.html. (Accessed: 25 November 2022).

⁴² Ibid.,

⁴³ Ibid.,

⁴⁴ Ibid.,

⁴⁵ Cook, S. (2004) *The search for a third way of curating new media art : balancing content and context in and out of the institution*. Ph.D. The University of Sunderland. Available at: <http://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.400949>. (Accessed: 26 November 2022).

⁴⁶ Graham, B. and Cook, S. (2010) *Rethinking Curating: Art After New Media*. MIT Press.

subsection. This potential line of inquiry motivated this study, as Graham and Cook argue that exhibition and curation are intrinsically intertwined in the context of new media art and that multidisciplinary competence is necessary for the successful curation of such works. This cross-departmental cooperation is an essential principle of curatorial practice when working with new media, as no curator, not even the "geek curators" championed by Olia Lialina⁴⁷, can control every aspect of every sort of new media art.

As Graham and Cook note in their book, technology has been incorporated into museums for a long time, frequently as supplementary aids to interpretation and instruction, and it is typically viewed as the domain of these departments, resulting in peculiar conflicts of interest. In other cases, this particular knowledge might be viewed as a benefit to curators since they may depend on those departments to develop their own curatorial practice and research by working directly with experts in such areas.

"Material Encounters with digital Cultural Heritage" (meSch), is a consortium of twelve partners from six European countries whose objective is to design and develop tools in order to achieve tangible interactive experience by connecting the physical space of an exhibition to a digital space, using innovative technological tools.

The time and space theories of Graham and Cook⁴⁸ are also an integral part of this dissertation. Interactive new media art, unlike more traditional static works such as sculpture and painting, requires time to become activated. Similar to video art, interactive art frequently involves an investment of time on the side of the participant or viewer before the full impact of the work can be experienced. This period of time may be determined by the artist, or it may be practically indefinite and need the audience or participant to finish it if that is even possible. This poses a significant burden on curators and exhibit designers, as museums and galleries need an average viewing time of 137 seconds per video work⁴⁹. Due to their original

⁴⁷ Lialina, O. (2009) *'Aluminum Sites, Geek Curators, and Online Conservators'*.

Available at: <http://www.ooart.ch/publikation/02.php?m=1&m2=1&lang=d&dirid=14>. (Accessed 20 January 2023).

⁴⁸ Ibid.,

⁴⁹ Serrell, B. (2010) *'Are They Watching? Visitors and Videos in Exhibitions'*, *Curator: The Museum Journal*, 45(1), pp. 50 - 64.

viewing setting, some works may require at least five hours to fully appreciate. This makes it challenging to design an exhibition that meets the needs of both the artwork and the audience. Most of the time, the public can not follow the entire piece, since they are long durational.

Graham and Cook feel that the philosophical and practical implications of new media art offer issues for museum employees in the area of space. Academics frequently view interactive new media art as immaterial since the essence of the new media art experience frequently occurs at the software level. While the majority of the work occurs at the level of code, there is still a need for physical artifacts, such as monitors to display the information gathered, control interfaces to interact with the works, or sensors to track the participant's actions and reactions, as well as the network infrastructures required, servers, and other behind the scenes infrastructure to enable the work to function.

If our goal as curators is to expand the audience for a particular work, we must develop new ways. These elements give the artwork a "body" by necessitating a physical location for viewing. Regardless of how ethereal or invisible the equipment is, it is essential to provide a location where people can view the work.

However, the authors contend that virtual worlds have a physicality as well so that the physicality of new media art is not limited to the real world. This area still requires the user to interact with the virtual world by hearing, seeing, and exerting force. Thus, works can become "spaces within physical locations"⁵⁰ and have a greater potential for immersion. The concept of virtual site-specific artworks was introduced in order to further develop these ideas. These works rely on immaterial media such as the Internet, computer servers and virtual settings. The artwork may become inactive or vanish entirely if the third-party locations where it was exhibited are no longer in existence.

Graham's past articles, case studies, and CRUMB (Curatorial Resource for Upstart Media Bliss) all give a solid foundation. Beryl Graham and Sarah Cook established CRUMB, an online library, and network for curators of new media art, to foster their

⁵⁰ Graham, B. and Cook, S. (2010) *Rethinking Curating: Art After New Media*, MIT Press.

pursuit of knowledge and professional development. For fifteen years, CRUMB was the place to go for everything from exhibits to research. Unfortunately, the website has not been updated since 2015, and it is currently in a condition of disrepair; files are missing, parts are difficult to navigate, and information is insufficient owing to inactive or abandoned projects. Still, the available content is highly beneficial for the project due to the number of interviews, case studies, and bibliographical sources it contains.

2.2.5 Therapeutic Application

Jon Ippolito, an artist and curator, has grown to popularity in the academic community due to the unique viewpoint he gives to the topic of new media art, owing to his involvement in both professions. Instead of calling for the automatic inclusion of works generated with new media into the traditional canon, Ippolito has advocated for a novel, innovative approach to curating works created with new media⁵¹. With works like *Death By Wall Label*, Ippolito⁵² not only provides intellectual curatorial notions and ways of thinking about new media but also lays the framework for the establishment of practical regulations for effective information systems.

By incorporating software engineering, information technology, and an artist's perspective into curation, Ippolito⁵³ proposes a more dynamic and responsive information system that addresses the issues posed by the collaborative, fluid nature of new media. Although noted elsewhere in the literature, Ippolito's substantial study on the malleability of new media has been vital to our investigation into the all-too-often neglected topic of interactive new media art (Figure 2) from the article *Death by Wall Label* illustrates the author's efforts to employ labeling in a manner that acknowledges the possibility of multiple authors and versions of a piece of art, as well as other issues related to the notion of art as software.

⁵¹ Graham, B. and Cook, S. (2010) *Rethinking Curating: Art After New Media*. MIT Press.

⁵² Ippolito, J. (2008) *Death by Wall Label*. Available at: <http://thoughtmesh.net/publish/11.php#> (Accessed: 25 November 2022).

⁵³ Ibid.,

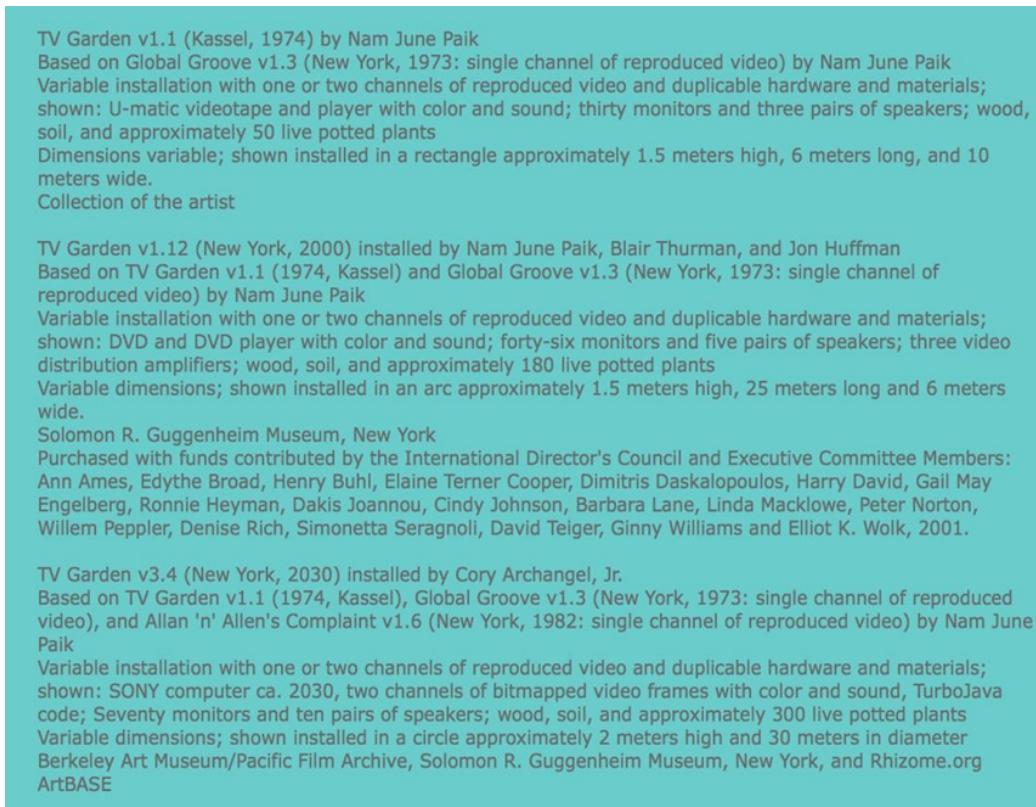


Figure 2: Screenshot from the article *Death by Wall Label* by John Ippolito. Available at

<http://vectors.usc.edu/thoughtmesh/publish/11.php?collaboration>

In this essay, Ippolito⁵⁴ intends to create a label that provides proper recognition to everyone who participated in the creation of an artwork, including designers, coders, authors, and others who are not typically recognized in the art world. It recognizes that several versions of a piece of art can exist, typically created to meet the conditions of competition or as deliberate experiments that vary from the "original" work. *Death by Wall Label* also handles concerns with naming, size, dates, and collections.

Curatorially, Blais and Ippolito's *Art as Antibody*⁵⁵ is particularly intriguing since new media art frequently stands in stark opposition to the power systems that govern society and the lives of individual inhabitants. Given that many contemporary artists aim to subvert the gallery/museum exhibition model by creating works that are inappropriate for display in a conventional gallery/museum setting (due to content such as sexuality, violence, or the use of copyrighted materials, or because they

⁵⁴ Ibid.,

⁵⁵ Ibid.,

involve illegal acts such as hacking third-party websites), it is evident that galleries and museums must develop new strategies for presenting such works.

2.3 The Exhibition Design Methodology

2.3.1 Exposition

Only three notable works document the installation details of interactive new media art. *Serious Games and Curating New Media Art: SFMoMA and 010101*⁵⁶ are two examples of curatorial and installation reports. *Aesthetics of Interaction in Digital Art* by Kwastek⁵⁷ contains further case studies revealing and briefly elaborating on the challenges curators and exhibition designers have when presented with interactive new media art.

Steve Dietz⁵⁸ observes, on a broader scale, the paucity and scarcity of literature on the subject of new media exhibition design. This lack of published works is not due to a lack of knowledge; rather, it indicates that the knowledge being generated is being kept either within the internal documentation of institutions or as dispersed knowledge, frequently held by designers, engineers, and other professionals outside of traditional academic circles. As a result, this thesis has an exceptional opportunity to synthesize and expand upon this material.

Since exhibition designers are professionals in interactive media, the literature on exhibition design presents an intriguing paradox. This knowledge is generally gained through trips to scientific centers, museums of curiosities, and other comparable locations with multimedia presentations and interactive displays. Take Philip Hughes's *Exhibition Design*⁵⁹ as an example; it addresses interaction at every level of the

⁵⁶ Knapp, B., Bardenet, R., Bernabeu, M. O., Bordas, R., Bruna, M., Calderhead, B., Cooper, J., Fletcher, A. G., Groen, D., Kuijper, B., Lewis, J., McInerney, G., Minssen, T., Osborne, J., Paulitschke, V., Pitt-Francis, J., Todoric, J., Yates, C. A., Gavaghan, D. and Deane, C. M. (2015) 'Ten Simple Rules for a Successful Cross-Disciplinary Collaboration', *PLOS Computational Biology*, 11(4).

⁵⁷ Kwastek, K. (2013) *Aesthetics of Interaction in Digital Art*. Cambridge, MA: The MIT Press. Available at: <https://mitpress.mit.edu/books/aesthetics-interaction-digital-art>.

⁵⁸ Dietz, S. (2006) *'Just Art': Contemporary Art After the Art Formerly Known As New Media*. Available at: http://www.yproductions.com/writing/archives/just_art_contemporary_art_afte.html (Accessed: 20 November 2022).

⁵⁹ Hughes, P. (2015) *Exhibition Design Second Edition: An Introduction*, Laurence King Publishing, London. Available at: <http://ebookcentral.proquest.com/lib/sunderland/detail.action?docID=4394129> (Accessed: 21 November 2022).

design process, from accessibility to designing with children in mind to the actual space's logistics to the selection of materials. Hughe's book is regularly used, as is David Dernie's⁶⁰ similarly titled *Exhibition Design*, which is also widely used. Unlike Hughe, Dernie has not altered or updated his work since its initial publication; consequently, it may be of less practical assistance to this investigation. Chicone and Kissel's⁶¹ book *Dinosaurs and Dioramas* may have been developed with natural history museums in mind, but it has some fantastic suggestions for kiosk design that can be used to interact with new media art. This book has a major emphasis on interactive displays and how to make them effective, accessible, and durable, as kiosks are frequently used by hundreds or thousands of people, including children who may not be the most careful users. The book provided a solid framework for later study based on in-depth interviews and the author's personal anecdotal evidence.

Since these are comprehensive documents that include everything from commercial to artistic endeavors, they operate under the assumption that a malfunctioning exhibit may be repaired or replaced. Concerns around preservation and copyright often render such procedures unfeasible when working with art. This is not to say that restoring or recreating a whole work of art has never been done previously, given that the original intent is maintained. The museum proudly displays a snow shovel that has been replaced in the fourth version of Marcel Duchamp's *In Advance of a Broken Arm* (1915/1964)⁶².

Although Clive Gillman's MITES Handbook⁶³ is the closest thing to an industry best practices guidebook, its emphasis on video and format migration as opposed to interactivity and new media art reveals its age. This dissertation will use it as a guide and evidence that such an attempt is feasible. Another

⁶⁰ Cerf, V. (2019) *The Challenges of Preserving Digital Art*, Google Arts & Culture. Available at: <https://artsandculture.google.com/theme/NgKiVzI4SsOmJQ> (Accessed: 17 November 2022).

⁶¹ Chicone, S. J. and Kissel, R. A. (2013) *Dinosaurs and Dioramas: Creating Natural History Exhibitions*. Routledge.

⁶² MoMA (2015) *Film und Foto, Object: Photo*. Available at: <https://www.moma.org/interactives/objectphoto/exhibitions/5.html> (Accessed: 29 November 2022).

⁶³ Gillman, C. (ed.) (2002) *The MITES Manual*. 1st ed. MITES, Liverpool.

dissertation-turned-guidebook is Julia Fryett's⁶⁴ *Transmedia Art Exhibitions, from Bauhaus to Your House*, which is available online. This work is licensed under Creative Commons' Attribution-Non Commercial 3.0 Unported License. To demonstrate that creative commons and digital distribution are compatible with the requirements of a doctoral thesis, the aforementioned dissertation serves as a distribution example and a template for constructing a hybrid work that functions as both a manual and a dissertation.

As new media progressively includes new technologies, the best venues to learn how to implement these solutions are manufacturers' websites, technology enthusiasts' blogs, wikis, and industry publications. Due to their reliance on what are basically consumer items, traditional curatorial documentation cannot keep up with the rapid turnover of new media artworks. On the flip side, these sites are excellent resources for documenting legacy forms of new media, many of which are maintained and even advanced by dedicated fans. Setup and troubleshooting tutorials for virtual reality (VR) devices can be found on steampowered.com, an online marketplace for VR video games, and the websites of VR hardware manufacturers such as Oculus, HTC, Samsung, and others. As new headsets replace older ones, support for the latter may be gradually phased out and eventually withdrawn from the site, making the former substantially more dangerous. Users may not always upgrade their headsets when a new product is launched; thus, Valve Software and the community want to provide continuing support. When it comes to legacy technology, many enthusiasts choose to keep the software operational while also documenting the required hardware updates and replacements.

This includes the PC Gaming Wiki, a wiki devoted to repairing gaming PCs, and the YouTube channel My Life in Gaming, which focuses on repairing classic video games.

Certain types of media art generated in the digital age strongly rely on the concept of reproducibility. This specifically refers to works that can be duplicated without quality

⁶⁴ Fryett, J. (2012) *Transmedia Art Exhibitions, from Bauhaus to Your House*, London. Available at: <https://itunes.apple.com/us/book/transmedia-art-exhibitionsfrombauhaustoyourhouse/id564040870?mt=11> (Accessed: 29 November 2022).

loss. Poetry's conceptual character makes it safe to duplicate input interfaces and the software that enables them in artistic works. More often than not, an original work of new media art does not exist in the same way that works of traditional media do. Unless the artists specifically ban it, replicas of their works are a terrific technique to improve awareness and make connections between people more obvious in the gallery setting. While Walter Benjamin⁶⁵ believed that the object's legitimacy would be questioned due to its ease of reproduction, works created using new media have proved that this is not the case.

In fact, every time the work is transferred to a new storage medium, shared online or duplicated between computer folders, a new copy that is identical to the original is produced. This is due to the absence of a "production master" from which more copies can be made. This undermines the rationale for maintaining the "original file" (the unaltered copy of the work) in perpetuity. Clearly, in the area of new media art, the claim that there can be only one original work of art is impractical. For the purposes of this dissertation, I use this fact to argue that it is more necessary to preserve the creative objectives of the artwork than its physical embodiment, due to factors such as enhanced accessibility and a clearer illustration of its interconnection.

2.3.2 Department-to-Department Work Together

One method to improve curatorial approaches for interactive new media art is to involve more people in the process. Curating these kinds of works includes technical expertise, experience working with new media from a technical standpoint, and insights gained from observing the public's actual engagement with the art.

Combining content (curation) and interaction (design) simultaneously generated a more successful show than isolating the two processes. Despite posing a challenge to the usual exhibition design process and requiring curators to be more creative and involved in all stages of design up to the end experience, it became apparent that the outcomes are quite satisfactory.⁶⁶

⁶⁵ Benjamin, W. (2008) *The Work of Art in the Age of Mechanical Reproduction*, Penguin UK.

⁶⁶ Ibid.,

2.3.4 Digital Art and Interactional Aesthetics

Aesthetics of Interaction in Digital Art by Katja Kwastek⁶⁷ presents and discusses this sort of new media art from an aesthetics standpoint. She also tackles theoretical issues, such as the influence of time on art and the difficulties posed by immaterial art. This work is concerned with the methodology and ideas behind concerns of public engagement, remote and in-situ audiences, the spatial and conceptual scaffolding necessary for those scenarios, and the artist's role in presenting the work, which is frequently a work in progress.

However, Kwastek's strongest feature is the perspective of the visitor on interactivity. Curators must be receptive to providing interactive experiences in a manner that allows viewers to "vicariously participate" because not all visitors are keen to be active participants (the term participants is used to avoid saying all visitors will interact with the works). This concept is important for the construction of any curation guide because it emphasizes the wide variety of standards that excellent curation must meet. One approach to experiencing interactive art is by "vicarious involvement," or by observing how others interact with it. However, only observing the results of interaction is insufficient; one must also know the interaction process. In light of this, it is evident that viewing a movie cannot replace actual engagement or even simulation.

Kwastek also discusses other aspects of interactive art, such as the aesthetic value of the technical systems employed in interactive new media art. Despite the fact that these systems are generally the first point of contact between the work and the recipient, they are typically disregarded as irrelevant to the meaning of the work. Last but not least, the author provides us with the tools necessary to appreciate how time and place become vital to interactive new media and why we should take this into account while planning an exhibition. This includes the value of physical and digital space, the length of time spent interacting with works, the need for actors to be physically present in order to activate works, and the obstacles a curator may encounter while organizing the layout of an exhibition. *Aesthetics of Interaction in*

⁶⁷ Kwastek, K. (2013) *Aesthetics of Interaction in Digital Art*. Cambridge, MA: The MIT Press. Available at: <https://mitpress.mit.edu/books/aesthetics-interaction-digital-art>. (Accessed: 29 November 2022).

Digital Art is an excellent starting point if you wish to develop a sound strategy and method for curating and developing digital art.

Curating New Media Art: Process, Interaction, Virtuality is a beneficial online course presented by Pau Waelder for the Node Center (Node Center, 2019). This course examines not just the aesthetics of cabling, but also practical and curatorial issues. Cables, projectors, and other equipment used in non-standard multimedia installations are often purposefully left visible as part of the artwork's design. Contrary to the exhibition design canon, which demands designers to be knowledgeable with and prepared to execute solutions for works that are both opaque and transparent in their construction, this knowledge stands in stark contrast.

2.3.5 Offline and Online

Marialaura Ghidini utilizes the phrases *offline* and *online* to describe the many places for presenting and creating art, as well as the tactics curators may employ when determining how to display new media works. The term *trans media* is often used to denote the blending of previously independent types of presentation⁶⁸.

This includes, but is not limited to, social networking platforms, video streaming services, and conventional websites. In contrast, *offline* refers to more traditional exhibition mediums like art galleries, printed books, and live performances. Ghidini⁶⁹ argues that, despite their differences, the two are inexorably linked because of their pervasiveness in everyday life and the inventive ways in which curators are presenting them to the public. Therefore, Ghidini⁷⁰ establishes a set of principles for curators to adhere to when designing and conducting exhibitions. These proposals also underline the increasing overlap between curation and design. This is a substantial divergence from normal curating practices, in which exhibition design happens only after the bulk of the essential institutional preparation has been done.

⁶⁸ Ibid.,

⁶⁹ Ghidini, M. (2015) *Curating Web-Based Art Exhibitions: Mapping Online and Offline Formats of Display*. The University of Sunderland. Available at: <http://sure.sunderland.ac.uk/6088/> (Accessed: 29 November 2022).

⁷⁰ Ibid.,

Curators of a new media art exhibition are often expected to take an active role in the design of the exhibition space from the ground up because of the importance of issues such as space, time, layout, and installation budgets. In addition, Ghidini⁷¹ suggests a greater mixing of offline exhibition practice with the burgeoning professions of online curation and exhibition design. Ghidini's Ph.D. dissertation⁷² was an essential resource because it is one of the most complete academic works on this topic.

3. Case Study

3.1 Introduction

The temporary multimedia exhibition by Onassis Stegi, *Plásmata: Bodies, Dreams and Data* in Pedion tou Areos, the largest park in the center of Athens. The exhibition was held in May until July 2022 and is a great current example of interactive high technological digital art in a public - physical space that left its marks and impact offline as well as online. As a production assistant in Onassis Stegi in the last few years, I can share in this case study an inside perspective as a cultural professional working for this cultural institution, as well as a visitor.

I would like to highlight the following phrase in the exhibition's statements: "[...] *Plásmata promises to entertain us but also to give us pause for thought in the Athenian summertime.*"⁷³ The word *entertain* is quite interesting here. Exhibitions like this one are designed for all, not only for contemporary art professionals or enthusiasts like some decades ago, but are designed for all ages and backgrounds, presented as an amusement - interactive park - venue. Sizable LED 3D screens (in this case 250 square meters of LED works were displayed), AI, robots and other hightech forms, usually interactive ones, are presented in large venues, creating an overwhelming feeling. In my point of view, this curatorial perspective holds negative and positive impacts, that will be discussed further below.

⁷¹ Ibid.,

⁷² Ibid.,

⁷³ Onassis Stegi Foundation official website, *Plásmata: Bodies, Dreams and Data*. Available at: <https://www.onassis.org/whats-on/plasmata> (Accessed: 12 January 2023).

3.2 Curatorial Structure

As the curators state in the exhibition's curatorial text, they created *a curated serendipity*, where the visitors can take three possible and suggested pathways. The artworks were placed in the park, in obvious but also more hidden spots. The curatorial main idea was for the visitor to *wander around* the park and even get lost in it. As the curators stated: “[...] *engaging with one exhibit means at least one other is in sight, and so visitors can lose themselves within Pedion tou Areos*”⁷⁴. As was mentioned in the previous chapters (see page 16), the emerging curatorial approach comes together with the core of most interactive new media artworks, the immersion of the viewer in the digital sphere, where the artworks are *process-oriented rather than object-oriented*.

In my experience, this idea of *serendipity* was creating a feeling of exploring but a visitor could easily skip some works, but someone can claim that this is also a possibility in such large scale exhibitions in public spaces, especially in the nighttime in an urban vegetation location, like Pedion tou Areos.

Interface is another important element for the curators, as they mention “*Through technologies and technological interfaces we desire and imagine ways to become something else, to change our human condition [...]*”. Thus, the interface between the human and non-human is the medium for the transformation of the human condition as we know it. All the works presented in *Plásmata: Bodies, Dreams and Data* question the existence, possibilities and boundaries of the bodies and different identities, online as well as offline and how the lines between those two realities can be blurred in times of highly developed technologies.

The curatorial statement closes with the following phrase: “*The Plásmata one encounters in the artworks in Pedion tou Areos reveal to us a view of the human experience as a blending of material and immaterial, organic and mechanic, a merge of human and nonhuman [...]*”. Summing up very well the three curatorial concepts: 1. *curated serendipity* 2. *immersion* and 3. *interface*.

⁷⁴ Ibid.,

3.3 New technologies in the Arts

As mentioned multiple times through this dissertation, the importance of technical knowledge and multidisciplinary competence (see page 26) is always required for exhibitions such *Plásmata*. In this case many technical expertises combined, in order to achieve display 24 very technologically demanding artworks. Beside the curatorial, design and production team, there was a technical director, a technical production manager, a stage engineer, lighting technician, electricians, audio technicians and broadcasting engineers⁷⁵.

People not related to the art field, worked and supported this exhibition via their technical and technological expertise. The curatorial work ends when it comes to the installation of these artworks and their maintenance and support during the exhibition's opening hours. Many artworks, for example, the work "*Another Moon*"⁷⁶ by Kimchi and Chips, is an installation that needed 40 solar towers collecting sun's energy during the day and projecting this light in the nighttime back into the sky creating a blue moon, in a three-dimensional form. Another example can be the installation "*Devided by Spy*"⁷⁷ (Figure 4), a 25 meters red lighted sphere, divided in two, was presented. Of course, many other artworks needed huge technical support, such as a life-size moving and talking robot for the installation "*Happiness*"⁷⁸ (Figure 6) by Dries Verhoeven or the 250 square meters LED screens, a medium used for most of the artworks. As mentioned before (see page 9) new media artworks often push and challenge the technological boundaries in unpredictable and unusual ways in order to serve the purpose of an artwork and of course the artist.

3.4 Interactivity

As it was frequently found in the literature review, new media art is often connected to interactivity. Also, in the case of *Plásmata*, some artworks required the presence of the viewer in order to be activated.

⁷⁵ Ibid.,

⁷⁶ Onassis Stegi Foundation official website, *Another Moon*. Available at: <https://www.onassis.org/art/works/another-moon> (Accessed: 20 January 2023).

⁷⁷ Onassis Stegi Foundation official website, *Devided*. Available at: <https://www.onassis.org/search/Devided%20by%20Spy> (Accessed: 20 January 2023).

⁷⁸ Onassis Stegi Foundation official website, *Happiness*. Available at: <https://www.onassis.org/art/works/happiness> (Accessed: 20 January 2023).

For example, the interactive installation “FRANK” by Cecile Waagner Falkenstorm placed in a natural small cave, using AI, an advanced algorithm of machine learning, interacts with the visitors by pretending to be an contemporary oracle, answering visitor’s existential questions. Next to the installation there were some written questions for the viewers to choose from, for example “How can I be happy?, What am I?” etc. Also, two instructions were written as well, the first one was for the visitor to wait until FRANK had finished its sentence and the second one was to talk only in English loud and clear into the microphone⁷⁹. Another example was the installation “Polymorphic” by Matthew Niederhauser, Elie Zananiri and John Fitzgerald, an LED box with moving sensors, where the visitors could stand in front of it and see their digital reflection in an abstract and graphic way on the screen, copying their movements.

These two examples of real - time response artworks highlight the importance of the physical presence of the viewer and more further their will for interaction with the artwork. If these two elements are absent the artwork can not exist and remain inactivated. As M. Langdon mentions, “[..] digital art can be highly connective. Interactive interfaces encourage human interaction, touch, reflection and bodily response.”⁸⁰

3.5 Memory Making: The exhibition as Online & Offline Experience

Despite the exhibition’s strong physical presence, the curators encourage the visitor to use their smartphones during their exploring in the park. As is mentioned in the curatorial note, the visitors had the option to scan via their smartphone’s cameras the displayed QR codes next to each artwork and read more about the work and the artist, including sound and written texts. The scanning could also happen offline, by downloading in advance an app. At the same time in the website, beside the curatorial note it can also be found the same detailed information, including as well a park’s map with the artworks pins, via Google Maps (Figure 5).

⁷⁹Onassis Stegi Foundation official website, FRANK. Available at: <https://create.cliomuseapp.com/tourExperience/item/511/2/5479/plasmata-bodies-dreams-and-data> (Accessed: 20 January 2023).

⁸⁰ Langdon, M. (2014) *The Work of Art a Digital Age: Art, Technology and Globalisation*, Springer, New York, p. 32.

Today, since the physical exhibition has ended, the website transforms the physical exhibition's experience to an online one, in the form of an interactive archive. Maps, high definition images, texts, videos, artist's biographies and interviews can be found related to the exhibition (Figure 5,6). It becomes more common in these kind of exhibitions to leave an online footprint after their closing, leaving an open window for the visitors to revisit the exhibition via their devices and for an new visitor that did not had the change the experience the exhibition offline, to get an extensive comprehension of the curatorial structure and the works displayed, by creating an online archive.

At the same time such large exhibitions can not be excluded from social media, where thousands of posts, stories and hashtags were created only in a two month period. Social media today for cultural organizations create a media mark and impact that also affects and promotes current as well as upcoming events. In my opinion, very often high technological artworks are selected not necessarily for curatorial purposes but for aesthetics. Colorful, hightech and large-scale artworks serve and presage social media success in order to keep foundations and galleries updated and relevant to trends, and as a result, popular.

3.6 Conclusion

Large scale new media exhibitions such *Plásmata* can easily apply to the previous chapters, because they are curated mostly as *process-oriented* rather than *object-oriented* and the aim is to create a general experience through *immersion*, *interface* and *interactivity*. Of course this practice may lead to mass consumption exhibitions with the risk of losing their main curatorial purpose which is to indicate social, political and environmental issues and enhance conversations rather than large scale amusing and eye pleasing artworks on social media. In the case of *Plásmata* there was a balance of these two sides, the curatorial and marketing aims, which I believe was the key to its success. Therefore, already Onassis Stegi has created an annual curatorial program at Pedion tou Areos for more similar exhibitions focusing on technology, the human condition and the questions that occur, creating a more organized and focused approach and also a platform for new media and digital art, something rarely seen to be presented in Greece.

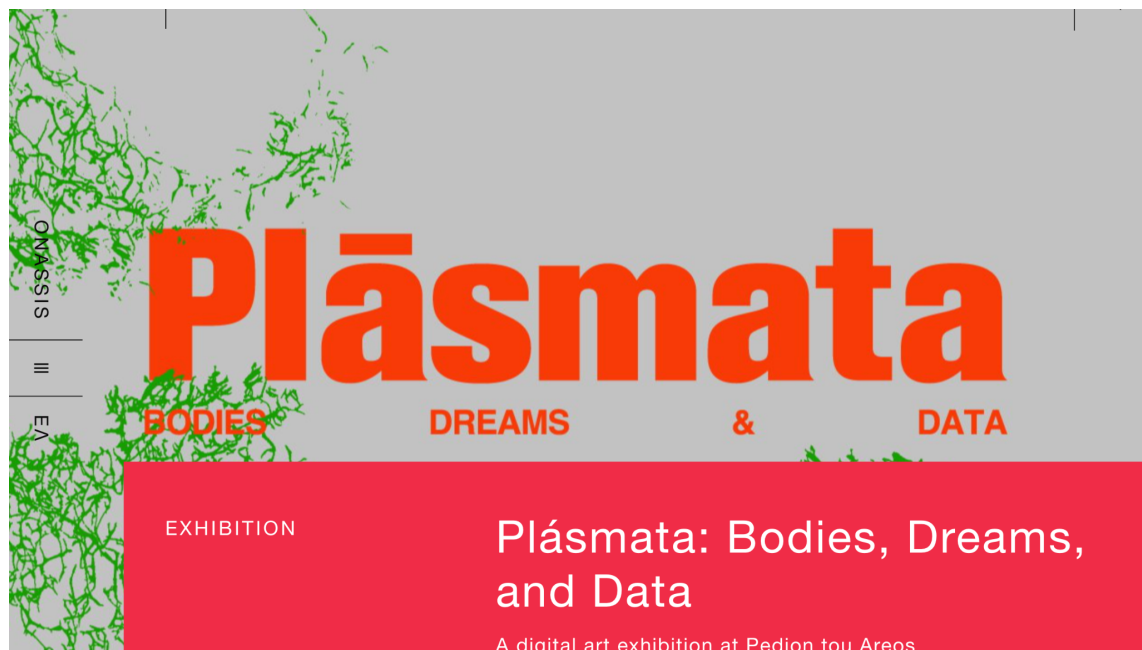


Figure 3: Screenshot from the official website of Onassis Stegi Foundation, *Plásmata: Bodies, Dreams and Data*. Available at: <https://www.onassis.org/whats-on/plasmata>

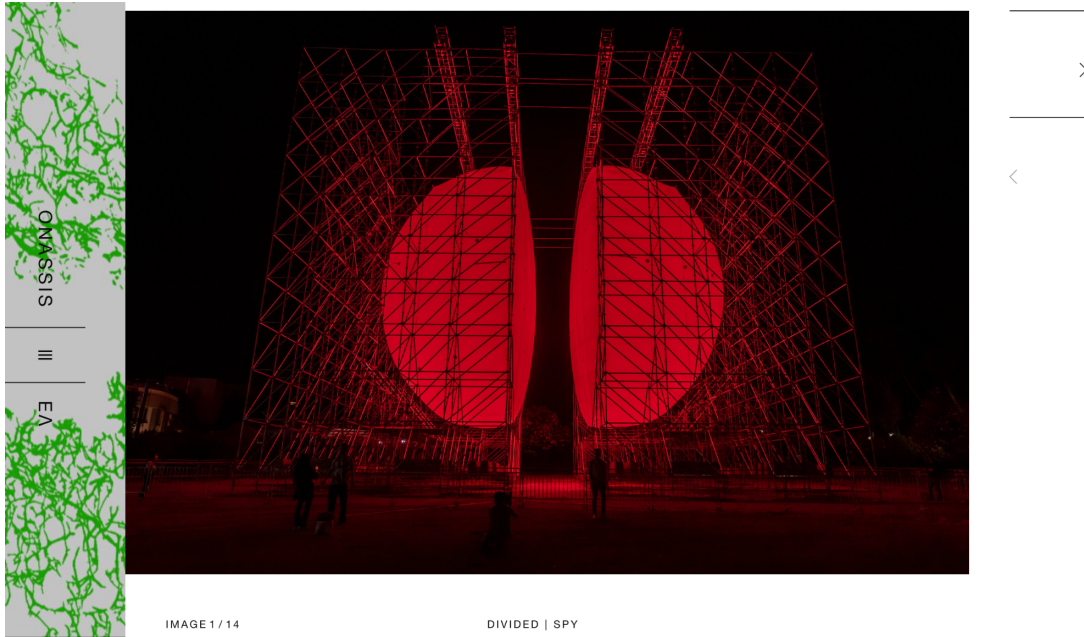


Figure 4: Screenshot from the official website of Onassis Stegi Foundation, *Plásmata: Bodies, Dreams and Data*. Available at: <https://www.onassis.org/whats-on/plasmata>

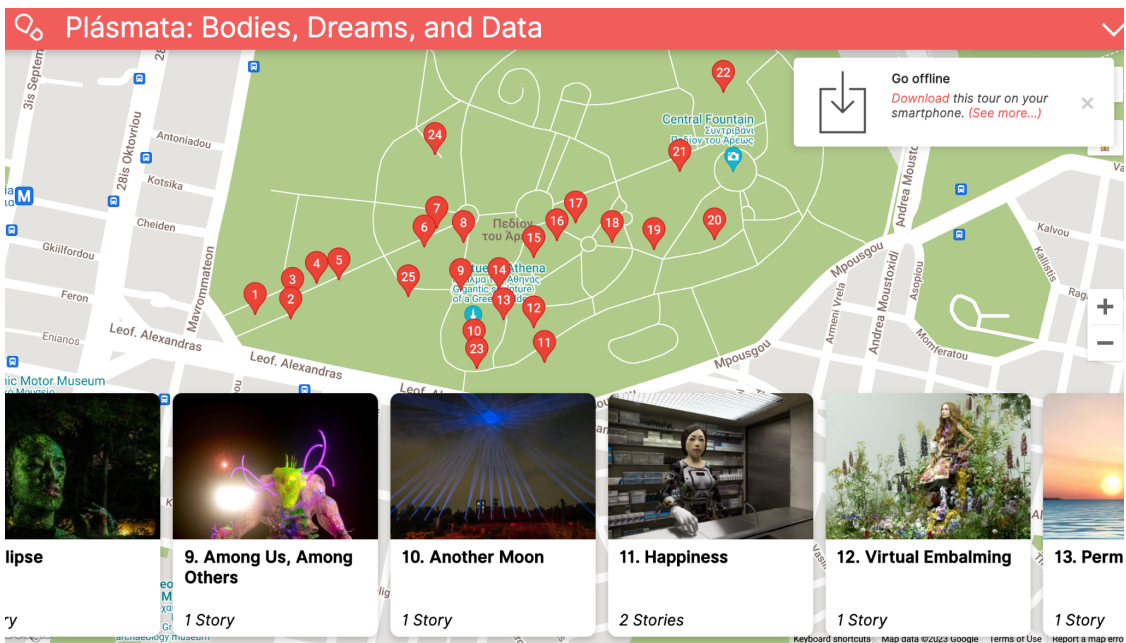


Figure 5: Screenshot from the online map of the exhibition: *Plásmata: Bodies, Dreams and Data*.

Available at:

<https://create.ciomuseapp.com/tourExperience/511/2/plasmata-bodies-dreams-and-data>

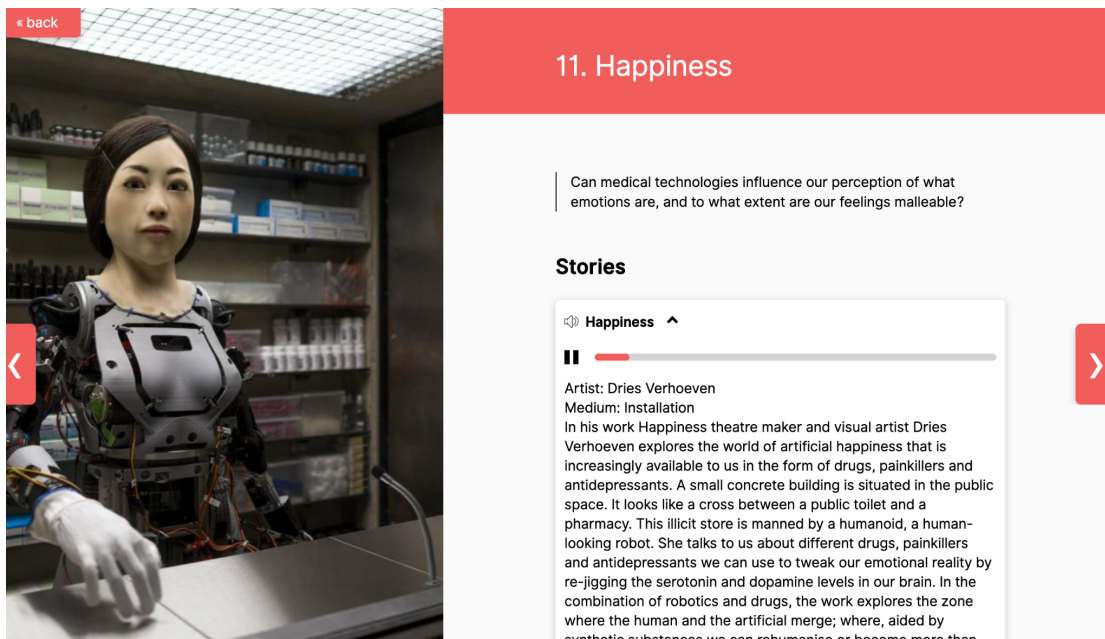


Figure 6: Screenshot from the online map of the exhibition: *Plásmata: Bodies, Dreams and Data*.

Available at:

<https://create.ciomuseapp.com/tourExperience/511/2/plasmata-bodies-dreams-and-data>

4. Conclusion

The emphasis on interactive forms of new media art has led me to find a number of potential research avenues. The most obvious area for improvement would be keeping the guide current as new forms of new media art arise but also new curatorial approaches. Similarly, retaining relevance over time necessitates periodic updates to reflect technological advancements. This should be a continuous project, either for me as a personal effort or for future scholars to continue. Expanding the scope of this dissertation to cover most of the well-known forms of new media art and not only interactive examples, is one possible avenue for expansion.

Additionally, it is simple to compose papers based on the ongoing research. Topics for scholarly journal articles that could be derived from the guidance include, but are not limited to, the importance of documentation in conserving interactive new media art and the interaction between time and space during the creation of such works. Several initiatives, including courses and seminars, have emerged in recent years to address the curation of new media art; but, as I have previously mentioned, there is

no one resource that addresses the interdisciplinarity of the medium or focuses solely on interactive new media art. Due to their constrained nature, these programmes cannot cover as much area or go as deeply into one style of new media art. The purpose of the dissertation was to provide an overview that considers the most important aspects when curating, exhibiting and preserving new media and digital art today by also examining past practices since even the 60s.

As mentioned, new media art exhibitions today follow high technological achievements that change rapidly as well as social media trends. The world of technology and social media moves fast and artists, curators, galleries and foundations do their best in order to stay relevant and updated. These two factors may be combined positively or they may be highly risky. Thus, cultural professionals have to be aware of these risks and have the tools and knowledge to balance both.

The dissertation achieved its objectives, and while it is not the final word on the subject, I hope it inspires other cultural professionals to create more engaging and thought-provoking papers and exhibitions that reach a wider audience and, in turn, give new media artists the platform and support they deserve.

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