

# **How Digital Tools Changed Art Exhibitions**

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## **ABSTRACT**

The COVID-19 pandemic declared a Public Health Emergency of International Concern in early 2020, has affected the landscape of art exhibitions. This paper investigates the impact of digital media on exhibition practices during and following the pandemic times, drawing upon a blend of autoethnographic methodology and academic research. Reflecting on personal experiences with installations by Andy Warhol and Monet, the paper discusses the significance of the relationship between digital and in-person engagements. The research emphasizes the transformative role of digital media on art exhibitions, articulating its effects on curatorial practices, and audience interaction in the pandemic and post-pandemic times.

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## **Introduction**

At the end of 2019, a viral crisis began to unfold globally. COVID-19, caused by SARS-CoV-2, swiftly escalated into a Public Health Emergency of International Concern (Cucinotta, 2020). Travel restrictions and lockdowns were imposed in various regions to slow the spread of the virus. Countries worldwide implemented strict measures such as quarantines, social distancing, and mask mandates. Economic impacts and disruptions to daily life become more pronounced. The pandemic had a significant impact on art exhibitions and the broader art world, with artists, curators, and organizers finding themselves navigating through these unforeseen challenges. In response to lockdowns and closures, many art institutions turned to virtual exhibitions and online galleries to reach audiences during this time. Digital tools became important ways to mitigate the challenges posed by the pandemic, most notably social distancing.

Digital exhibitions allowed people to explore art safely at home at a time when in person art viewing was not possible. Online browsing rooms, 3D Tours and virtual reality experiences have, consequently, become more common. Some institutions have adopted a hybrid model, combining physical and virtual exhibitions. These are some of the ways that technology has supported an adapted art-viewing experience during the pandemic, which has continued to influence the way we experience art as pandemic measures ease. This paper examines the transformative role of digital media in art exhibitions during the 2019-2022 pandemic period, its effects on curatorial practices and exhibition functions. Based on personal experiences and in-depth case

studies, the research critically evaluates the growing popular hybrid exhibition models that blend traditional viewing with digital interactivity, providing insights into the evolving nature of art consumption and the potential future development of exhibition practices.

In this major research paper, I explore the ways that digital technology functions as a remedial tool in exhibition practice during and immediately following the pandemic. Specifically, I focus on the practice and controversy of some digital tools to transform physical exhibitions into virtual exhibitions. The methodologies I draw upon are deeply informed by autoethnographic techniques, which enable me to weave my narrative with the broader social and historical fabric of the COVID-19 pandemic. Adopting an autoethnographic lens, which intertwines personal experiences with the wider societal and historical narrative, reflects the interplay between the individual and the collective (Ellis, Adams & Bochner, 2011). I want to understand cultural and art experiences by analyzing personal feelings and critical thinking specifically the experience of attending exhibitions in this paper.

In the first chapter, I reflect upon my encounters with American pop artist and icon Andy Warhol's artwork and discuss how digital media has facilitated the shift to online exhibitions and displays during the pandemic. In this chapter, I discuss digital media as an auxiliary tool for art presentation and assess whether and how this impacts audience experience. Next, I compare the immersive art exhibition, Monet's Garden, with my own encounters with the work of French Impressionist Claude Monet in a gallery setting- the more conventional space in which this work has

historically been encountered. This comparison supports an analysis of how audience engagement has been influenced by digital media that adapts artwork for broad public consumption. By analyzing the similarities and differences of Monet's oil paintings between white-cube curation and immersive curation. I will discuss digital media as an innovative tool that combines traditional works of art to bring new experiences to the audience.

Lastly, I explore the opportunities and challenges that digital media or digital tools bring to contemporary art by comparing the physical and virtual exhibits in the same exhibition. The discussion of virtual reality brought by digital tools to artworks. Studying digital media's impact on art exhibitions can provide insights into how technology is transforming the art world, and the changing nature of audience engagement with art. Studying the impact of digital media on art exhibitions will also help contemporary artists, curators, and scholars prepare the response to the next possible unknown challenges.

## **CHAPTER 1: The Installation “Sliver Clouds”: Two Distinct Experiences**

### **Introduction**

In the last few decades, the infusion of digital media into the art world has not only revolutionized the creative process but has also reshaped the way art is exhibited as well as experienced. As Christiane Paul noted in 2015: “Many artists, curators, and theorists have already pronounced an age of post-media and post-Internet that finds its artistic expression in works both deeply informed and shaped by digital technologies yet crossing boundaries between media in their final form” (Paul, p.8). The advent of new technologies and the proliferation of the Internet have facilitated an unprecedented integration of digital elements in art exhibitions. The general “white cube” exhibition space, once the cornerstone of artistic engagement and appreciation, has encountered the need to adapt and innovate. This adaptation has not only been a response to current challenges but also a reflection of a deeper, ongoing transformation in how art is created, displayed, and experienced.

Over the past three years, art institutions and galleries have embraced digital media to display their collections, providing a range of offerings such as virtual tours, online exhibitions, and digital experiences to interact with audiences. At the same time, the experience and feeling of the audience also changed through these digital practices. As I will argue, the digital pivot driven by the COVID-19 lockdown is an important factor in the realignment of the use of digital and technological tools in art galleries around the world.



In this chapter, I assert that the pandemic-induced shift to include digital tools in art exhibitions, while initially a response to the health crisis, has unveiled the profound capabilities of digital media as an auxiliary tool in art presentation. The shift of exhibition art to digital media is reflected in the content of the message, which replaces the information delivery with the artwork delivery. In a landscape where physical interaction with art pieces was once a given, restrictions have imposed new boundaries, causing a reconsideration of audience participation. An example of this shift is the experience of Andy Warhol's "Silver Clouds," specifically based on my experiences of visiting two versions of this installation. The inability to physically engage with interactive installations highlights a shift in the perception as well as appreciation of art.

Digital media has offered a lifeline to artists and institutions alike during the pandemic, enabling them to reach audiences beyond the confines of physical spaces. It is important to look at how organizations and artists have responded to the difficulties brought on by the pandemic. Exploring the unique value of art in virtual public spaces can offer insights into how digital media can enhance the accessibility and reach of art. Considering my personal experience, examining the adaptations made by artists and institutions, and the broader implications for art's role in the public sphere, this analysis illuminates how digital media has not only ensured continuity during pandemic times but also sparked a redesign of the flexibility and accessibility of art. It argues that the use of digital tools in art exhibitions has altered the aesthetic, educational as well as functional dimensions of art to some extent,

suggesting a future where art is more versatile and widely available, thriving through innovation and interactive engagement.

### **Digital Tools are Used as Auxiliary Tools**

The necessity of digital tools during the pandemic has inspired the development of novel techniques, but it also poses challenges in preserving curatorial intentions while also maintaining the integrity of artworks. For example, museums, theaters, and concert halls began live-streaming tours, performances, and concerts, allowing them to reach a global audience. Katja Kwastek pointed out in the book *Aesthetics of Interaction in Digital Art*, “Digital technology fundamentally alters the conditions in which sensory perception takes place. Interactive media art reflects not only digital technology’s functionality and symbolism but also the ways in which we deal with such technology and our (self-)perceptions when engaging with it” (2013, p.43).

These issues challenge established norms and present a distinct complication for aesthetic theory, which traditionally positions the artwork as its primary focus. They also question the need for perceptual separation in the aesthetic experience, and the assumed connections between sensory perception and the intentional acts that aesthetic theories often take for granted. Considering these factors, on the one hand, the digital tools serve as a lifeline for the art world during the pandemic-induced isolation and, on the other, pose critical questions regarding the conservation of artistic intent and integrity.

In 2021, I had the opportunity to visit the Andy Warhol exhibition at the Art Gallery of Ontario, which, once the lockdown was released, was the first exhibition I experienced in Toronto, but when social distancing was still encouraged. I was particularly drawn to Warhol's installation, *Silver Clouds*. According to the introduction, "Silver Clouds" is one of the Warhol Museum Series, 1994, reprint 1994. Helium-filled metalized plastic film (scotchpak), Flat balloon: 88.9 x 132.1 cm; Inflated: 81.3 x 121.9 x 38.1 cm. This artwork, developed by Warhol in 1966, features a room filled with large, helium-filled, silver mylar, pillow-shaped balloons that react to air currents by moving and floating along with viewers' movements. As Martin Schulze wrote,

His piece, *Silver Clouds*, is still one of his most mesmerizing projects to date. The floating metallic pillows that hover in space allow audiences to become physically trapped and hypnotized by the installation. The silver balloons, which are still displayed in museums today, are inflated with a proprietary mixture of air and pure helium. This mixture gives the balloons enough lift that they are able to float off the floor; however, the mixture has to be precise to prevent the balloons from sticking to the ceiling. (2017)

Even more remarkable, he noted:

Originally, the first installation of the *Silver Clouds* occurred in 1966 in a gallery in New York. The balloons in the first installation were created as part of a collaborative effort between Warhol and engineer Billy Klüver. Once again, Warhol managed to blur the lines in art, challenging the idea that art was

supposed to be experienced and viewed from afar and not touched physically (Schulze, 2017).

Warhol encourages the audience to walk into the installation, to experience it, to touch it rather than stand in front of it.

According to Claire Voon, “*Silver Clouds* heralded a meaningful shift in Warhol’s creative practice. He thought his career as a painter was over, the clouds were Warhol’s attempt to bring the energy of his studio... into the world and make his environment public” (2019). It represents Warhol’s experimentation with new materials and media along with his interest in immersive environments that question the distinctions between everyday life and the arts.

This is one main message that the artist wanted to deliver and trigger the public to reconsider the connection between new material and art creation. Via its original intention, the installation “*Silver Clouds*” invites viewers to become participants. The real or imagined barriers that stand between the artwork and the viewer are dismantled as the floating pillows react to air currents and audience motions. In this creative environment, the audience, even as the observer of the work, is also a participant and part of the artwork.

Nevertheless, this experience changed due to the pandemic regulation. I was not able to enter the installation room to interact and have fun with the *Silver Clouds* firsthand, which differed from my previous understanding of the piece. I remained silently outside the picket line in the exhibition hall, observing the balloons as they naturally descended. For those who experienced the installation at the time of the

pandemic – as I had - when social distancing measures were in place, the feelings might have been mixed. The inability to interact as fully with the work as intended might have created a feeling of loss or an increased consciousness of the physical barriers that the pandemic has imposed on social and cultural experiences.

Feeling regretful about not being able to participate in the installation, I looked up videos concerning *Silver Clouds* and watched people who were able to experience this installation without distance. Compared to the quiet of the Toronto exhibition space with few visitors, in the video, I spotted a mixture of onlookers and silver balloons in one area. They touch, hit, and release the balloons, filled with childlike fun and joy. The documentation of digital media enabled me to comprehend the application of auxiliary tools. I learned about the idea and purpose of the artist's creation and the experience of other visitors, so I had a lot of different feelings after my viewing. There will be some loss because my observation did not touch the original conception that the artist wants to express. The appearance of the video recording made the exhibition more specific, but it cannot replace my sense of participation at all.

### **Advantages and Disadvantages**

Digital tools have played a crucial role during the pandemic by serving a dual purpose. Firstly, they have acted as a lifeline for the art world, maintaining the ubiquitous and enriching quality of art in our lives despite the challenges of isolation.

Secondly, their use has highlighted considerable challenges, specifically in

documenting that are typically essential to contemporary art experiences. These tools have ensured continuity and access to art but have also brought to the fore the struggle to preserve the full sensory engagement that in-person art experiences provide. Katja Kwastek's insights into the aesthetics of interaction in digital art target the shift in participation from the audience and perceptions of sensation that digital tools have both facilitated and complicated. The experience of Andy Warhol's "Silver Clouds" during the pandemic is emblematic of the following shift. The installation, designed for interaction, became a static display, its purpose and impact altered by the circumstances.

In addition to changing the experience, the enforced distance provided a fresh viewpoint on the observer's position. In the absence of physical interaction, the audience was encouraged to interact with the art in a reflective, introspective manner, contemplating the movements of *Silver Clouds* from afar as well as drawing personal meaning from the sight. All online resources, documents and videos can be considered as a supplement to the understanding of the exhibits. Continuing to face the always troublesome development of the pandemic, online office work, online services, online medical care, and so forth have become the long-term modes and means by which people live. Transitioning "online" has undoubtedly become the best choice for various professional fields to cope with the current environment and situation. On this point, major art museums and galleries around the world have made some attempts under the conditions of the pandemic. Online exhibitions, in

comparison to physical ones, can permanently preserve works in the form of high-definition images or videos, so that visitors can revisit and share them at any time.

The digital capture of the art installation, while it provided informative and suggestive content, fell short of reproducing the full immersive quality that was intended. This serves to highlight both the constraints and possibilities inherent in the use of digital tools. Typically, video presentations of exhibitions comprise short documentary films, guided tour videos, and live online broadcasts. The documentary short film generally focuses on documenting rather than guiding or interpreting the exhibition experience, offering a straightforward and efficient method for viewers to gather comprehensive details and context about the exhibition.

The benefits and drawbacks of using digital tools in art exhibitions are clear from my visit and observations. Visiting art galleries and museum exhibitions in person requires a significant physical effort. I need to strategically plan my time and route through the exhibitions. Sometimes, I even must forego seeing some exhibits. The online exhibition hall has provided us with a lot of conveniences, particularly since the pandemic prevented us from moving around. This “wall-free art exhibition” provides the audience with a huge and unlimited display of artworks. Online exhibitions, in comparison to physical ones, can permanently preserve works in the form of high-definition images or videos, so that visitors can revisit and share them at any time. However, the static space composed of many disorderly artworks is indeed easy to make the audience feel bored and even at a loss. Sometimes the page jumps or

closes, making it difficult for me to discern the consistency of the artworks arranged according to the timeline.

The rise of virtual exhibitions has been propelled by the physical limitations imposed by the COVID-19 pandemic. Artworks that were once primarily experienced in person are increasingly being encountered in the digital realm. This shift has been met with a measure of discomfort within the community. By analyzing *A Perspective of Virtual Exhibition during the COVID-19 pandemic* questionnaire data of Lissimia and Prayogi, they found that exploring virtual exhibitions, particularly those aligned with personal or professional interests, can be a source of motivation and engagement. Attending virtual exhibitions in pandemic-related restrictions is a unique experience that offers entertainment, insights, and stress relief. Nonetheless, virtual exhibitions should not be regarded as a replacement for their physical counterparts, since each has its own unique qualities (2022, p.45-54). Perhaps for the general visitor, virtual and physical exhibitions offer similar experiences when it comes to engaging with two-dimensional artworks such as oil paintings and manuscripts. However, for three-dimensional or dynamic forms like sculptures, installation arts and performance arts, immersive observation and active participation are crucial. For me, the experience of going to an exhibition involves more than just the artwork; it also involves observing how other visitors engage with the art—whether they react with surprise, admiration, or disinterest and quickly move on. These interactions form a significant part of what I “harvest” as an art observer, a fact that online exhibitions cannot replace. Hence, even if I am open to the advancements and transformations driven by technology, they



do not provide a substitute for the multifaceted experiences I get while in the presence of physical artworks.

Whether online or offline, it is the form of presentation of the exhibition, rather than the focus of the exhibition. The core of the exhibition is the works of art, and it should be appreciated in kind and watched closely. These kinds of conventional viewing methods are becoming increasingly rare and valuable, especially in the Internet age. According to Qingwei Lan, a Chinese curator, Doctor of art history and theory, art museum, and art history scholar, the artworks are not simply looking at photos but are composed of various sizes and colors, and these elements are carefully deployed and utilized by artists according to different scenes to achieve the best effect. Within this framework, artworks are not independent images; rather, they are a part of the knowledge production and thought-testing ground system that is constructed by curators and organizers (2020).<sup>1</sup> Information can be obtained by staring at the physical works for a longer time, and the viewer can easily determine the authenticity of the information, increasing the likelihood of an audience's developing feelings and emotions for the works. This is an important reason why offline physical exhibitions cannot be completely replaced.

The art exhibition is a cultural field interwoven by artists, artworks, curators, public education, etc., emphasizing knowledge production, on-site experience, and viewing dialogue. Changes in exhibition methods can only change the channels of

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<sup>1</sup> Lan, Qingwei. "Mixed Online Exhibitions and the Lack of Humanistic Warmth." *Shanghai Art Review* 4, 2020. "艺术品不是简单地看照片，而是根据不同尺幅，不同色彩构成，由艺术家根据不同的场景精心调配和使用这些要素以达到最佳效果。在这个语境中，艺术品不是独立的图像，而是在策展人和组织者构建的知识生产、思想试验场体系下的一部分。" Direct quote, translated by author.

information dissemination. For individuals, the most important thing is self-experience while visiting exhibitions.

## **CHAPTER 2: Immersive Exhibition “Beyond Monet” (2022) and Monet’s**

### **Painting as hung at MOMA (1920)**

#### **Introduction**

Immersive exhibitions, experience-based displays of artwork and moving images through audio-visual methods in ways that engulf architectural space have received widespread public attention and many visitors in recent years. These exhibitions use various multisensory display techniques to create illusions that envelop visitors in a captivating three-dimensional virtual environment. This chapter is primarily concerned with the implications of immersive exhibitions as a digital presentation strategy. While immersive exhibitions pre-date the pandemic, their function as a representational mode served an important function when social distancing precluded visiting art in a gallery setting. In this chapter, I discuss the way immersive exhibitions augment the viewing experience found within conventional exhibition practice and the impacts that this has on artwork. I will also discuss digital technology as an innovative tool and medium for presenting artwork. Finally, this analysis would be incomplete if I did not address the issues that technology in exhibitions brings to the viewing experience of artworks. These are the topics covered in this chapter.

The practice of immersing oneself in an activity refers to an all-encompassing experience of being enmeshed with an idea or experience. An immersive art exhibition signals an art viewing experience in which audiences are subsumed by the artwork that they view, rather than merely witnessing it. In the mid-15th century,

immersion referred to the physical act of “plunging or dipping into,” but by the 1640s, it had come to mean deep mental engagement or “absorption in some interests or situation” (Melnikoff, 2023, p.77). The feeling of putting all of one’s energy, body, and mind into a particular activity is referred to as a flow experience. Artists and curators have indeed been focusing on creating more inclusive and diverse experiences for audiences. According to Penny Pan,

The immersive exhibition is a specialized exhibition genre flourishing in the 21st century. It creates illusions of time and space by applying multisensory display methods to envelop visitors in a three-dimensional virtual world. The enhanced sense of presence facilitates public engagement. One of the most revolutionary features of the immersive exhibition is its potential to accommodate multiple senses. (Pan, 2021)

There’s a growing movement to make art accessible and engaging for a broader demographic, beyond conventional gallery visitors. My analysis is based on my visits to exhibitions featuring the work of Claude Monet that took place at galleries and immersive exhibition sites in Toronto and New York during and after the pandemic. The impact of this approach to viewing has highlighted for me the need for research that addresses the discrepancies in the value of these two activities.

### **Personal Experiences**

During my trip to New York in 2022, I visited the Museum of Modern Art where I saw Claude Monet’s original artwork, *Water Lilies* (1914-1926). The Water Lilies

group is a mature series of Monet's later works, depicting water lilies blooming in his garden pond in northwestern France, and further establishing his reputation as a master of Impressionism. I also had the chance to see *Beyond Monet*, which offers an immersive and multisensory journey through the works of renowned Impressionist painter Claude Monet. Hosted by Lighthouse Artspace in Toronto, this exhibition was shown at 30 Wall Street in New York, welcoming visitors from November 1st, 2022, through February 26th, 2023. The two experiences of visiting the same artwork in different ways became the stepping-stones for this discussion.

*Water Lilies* is part of the permanent collection at the museum, which is combined with three panels, overall 2 x12.8 meters. I enjoyed looking at the details of the oil paintings, the brushstrokes, the colors, and the atmosphere of the exhibition hall. The Impressionist movement, which emphasized capturing the fleeting effects of light and color in nature, was founded by Monet. Monet's paintings are admired for their beauty and ability to freeze time. The water lily series is another of his well-known subjects, as the complexities of color and light allow the viewer to see the incredible diversity of nature and the depth and mystery of the life it supports.

The white cube conventions—a room with white and otherwise bare walls in a brightly lit space—provide an excellent setting and platform for viewing this work. External events outside the gallery's boundaries do not affect the exhibits; the art housed within the white cube's space exists in a constant state of balance, providing visitors with a consistent experience that guides their perception throughout their visit.

As Beazley said,

Much of this applied to Impressionism, in which a major theme was the edge as an umpire of what's in and what's out. But this was combined with a far more important force, the beginning of the decisive thrust that eventually altered the idea of the picture, the way it was hung, and ultimately the gallery space: the myth of flatness, which became the powerful logician in painting's argument for self-definition. The great inventor here is, of course, Monet (2017, p.20)

The white cube's minimalist environment emphasizes the art, encouraging viewers to focus solely on the paintings and their content. When I look closely, I notice the painter's organization and understanding of various elements, the fluidity of brush strokes, color composition, light and shadow treatment, and others. I want to recreate one or two of them in my paintings. When viewing from a distance, I will pay attention to the echo of the work and the exhibition space, consider the artwork's meaning, and feel the emotional resonance and impact of the painting. That is also the goal of offline art exhibitions: to provide the best platform for the public to immerse themselves in art and gain insights into life.

The white cube exhibit form results from art history and a particular worldview, but it is not the only way for the world to recognize art. Art, as a product of humanistic society, is bound to have a relationship with the characteristics of the times in any period. Art, as a product of humanistic society, is inextricably linked to the characteristics of the times in any given period. According to Oliver Grau, "Digital technologies influence not only on museum environments but also, as we know, art production. Contemporary artworks more and more frequently take the form of a

visual or audiovisual event rather than a permanent, stable object” (2017, p.17).

Technology can revitalize art at any time in history. As Anthea Callen writes in her book *The Art of Impressionism: Painting Technique & the Making of Modernity*:

The nineteenth century is characterized in art histories as an era of innovation: in the production of the artist’s materials, in their usage and in the ‘modern’ styles of painting they generated. Science and technology provided painters with a greatly extended range of artists’ materials and pigments, and color merchants retailed a burgeoning selection of ready-made equipment, including painting supports.

(Callen, 2000).

Artists re-examined the relationship between light and color as scientific research deepened and evolved.

Impressionism became the mainstream French art in the last three decades of the nineteenth century, influencing Western art. “I contend that new ways (in as much as they were new) of seeing and representing were determined by differences in observing and experiencing the visible world and that the constitution of these differences in painting depended on finding new techniques and ways to use the materials of painting” (Callen, 2000). Modern science and technology are bound to collide with ideas of art and culture that have deeply developed histories linked to the very ideas of art history in this era of rapid development of science and technology. Subsequently, the art world’s communication and display methods will be subverted; the expression form of “immersive” art was born in such an era. In addition, technological advancements allow artworks to be more than just expressing a single

sense. Moreover, its second creation gives traditional painting more energy and a new interpretation.

*Beyond Monet* offers an immersive experience. This single artwork, which could be seen in person at MOMA and through the immersive exhibition organized by Lighthouse Artspace in the same city, presents an exciting juxtaposition of priorities and values in the art-viewing experience. I was uninterested in the Lighthouse Artspace-organized exhibition *Beyond Monet* because I had already seen many of Monet's works in museums and art galleries. I am more accustomed to seeing original paintings. In retrospect, I also realized that I had preconceived notions about *Beyond Monet*, which I had labeled a decorative art exhibition. My reason for not going is simple: I find watching projections boring, and this location is only suitable for taking photos. In this sense, it used the artist's accomplishments and the influence of pioneering works of art. The curator displayed exceptional artistic accomplishments with lights and screens. However, I also went to the immersive exhibition to accompany my friends, which changed some of my thoughts.

Indeed, I was pleasantly surprised to discover that the exhibition *Beyond Monet* provided a visual feast unlike any other I had seen. *Beyond Monet* is notable for its use of a technique known as "deep canvas," which creates a sense of depth and movement within the paintings. The background artist paints 3D graphics of the 3D scenes, and information like each stroke's color, shape, and pressure is saved as data rather than pixels, allowing the software to apply the stroke to the correct location in the 3D space.



I realized what it was like to be immersed in an artwork when I walked into the exhibition hall. Monet's paintings came to life on the lights and floor thanks to projection equipment, pushing the boundaries of the traditional picture frame. This painting is no longer displayed horizontally in front of me but around my entire body. Light and shadow replace oil paint, space replaces canvas, and immersive experience replaces single visual viewing in flat painting. The use of projections and lighting enhanced the visual impact. The dark indoor environment was isolated from the daily environment, assisting in the amplification of senses, combining images and interdisciplinary technology, and better applying other body senses besides visual senses, such as hearing, smell, and so on, to understand better and feel the site itself.

In addition to visual and auditory elements, the immersive exhibition used synchronized lighting effects to create a dynamic and immersive environment. The exhibition also includes a scent experience transporting visitors to Monet's Garden. For example, these auditory and olfactory experiences are unavailable when viewing MOMA artwork. Because of the pandemic, I had to wear a mask during my visit, which limited my experience in this area. One of the effects of COVID-19 on audiences visiting public galleries during pandemic and post-pandemic times is that they must forego some exhibition experiences to protect their health (Giannini and Bowen, 2022). This diverse and immersive exhibition is hoped to be fully experienced in the post-epidemic period. Viewing an exhibition is analogous to reading a book. For every thousand people, there are a thousand Hamlets. Each person's experience is unique, as is each person's purpose. Because of my preferences and the limitations of

the venue, this exhibition focuses on cutting-edge experiences made possible by technological advancement, which is not the best option for those who want to engage with the artist's creation fully. Unlike conventional exhibition methods, this exhibition is an excellent example of curating with cutting-edge digital technology. It emphasizes multisensory experiences in addition to visual elements, combining previous accomplishments with cutting-edge digital tools. Because of the pandemic's impact, immersive exhibitions have become a new avenue of exploration for many art institutions, as they can provide a richer and more fascinating exhibition experience through digital technology while maintaining social distance at this time.

This firsthand experience at MOMA and the Lighthouse Artspace exhibition prompted me to delve deeper into the topic of immersive exhibitions and their worth. To comprehend the evolution and future trends of immersive art exhibitions, one must first comprehend the form and essence of immersive art. The immersive art form is defined as “the audience entering the artwork” and “engaging with it”; these are two conditions that are linked. Depending on the nature of the work, “entering a work of art” can be divided into two categories: “immersive” and “alternate reality.” Despite the differences between these two types, the current market favors the unified term “immersive art.” According to Mirja Beck,

the immersive exhibitions allude more to the second type of only perceptive experience—also named ‘lived experience’—by addressing the public on an emotional level, not in a knowledge imparting, rational way...Concerning the ‘modes of experience’ they are rather passive than active, even though they aim to

offer a more active-orientated mode by encouraging visitors to ‘interact’ with the projected images. (2023)

In this context, “immersion” is a fully immersive experience influenced by artificial technological devices. In contrast to sound and electricity, “immersion” involves the participants’ five senses detecting elements from reality. It is derived from the overall impression of the virtual environment, which elicits corresponding emotions and thoughts. In essence, immersive art cannot be separated from digital technology; its depth must have meaning and connotation. In addition, the three elements of sound, light, and electricity are crucial in the immersive exhibition.

### **Value and Stigma**

Immersive exhibitions provided a different depth of experience than galleries did. I agreed that the critique of digital exhibitions favored engagement with original and material artworks and actual material art. Visits to the artist’s original work are in contrast with immersive experiences emphasizing tradition and authenticity. “In hindsight, I realize that authenticity is almost beside the point; instead, the lure of a digitally mediated and multisensory encounter with the artist and his oeuvre is central.” The quote from Beck (2023) inspired me to reconsider the value of immersive exhibitions. The presentation of a work of art ultimately determines how we understand it. It is also stated in John Berger’s book *Ways of Seeing* that the original’s uniqueness lies in the fact that it is a copy of the original, but in either case, what makes people feel unique is no longer what is presented in the image. It means

that we should consider the presentation when evaluating the work. More specifically, when we look at immersive exhibitions like Monet's, we should not focus on whether he is an original work of art in and of itself but rather on interpreting and comprehending the novelty of the immersive artistic experience. "The first meaning is no longer to be found in what it says but in what it is," Berger writes (2023, p.21).

The importance of an exhibition is not only art-related but also audience-related in that it considers how to influence the audience as the center. The Canadian philosopher Marshall McLuhan worked on the study of media theory. In the first chapter of *Understanding Media: The Extensions of Man* (McLuhan, 2015), he stated that "the medium is the message" as well as the phrase "global village." He defined media as extensions of ourselves, and he was more interested in exploring the implications of our technological extensions than in categorizing them as "good" or "bad" (Bobbitt, 2011). The exhibition is a medium like films, music, or paintings. Its importance lies in displaying the curator's or artist's professional and impressive works and whether they can move or influence the audience. A good exhibition is full of vitality when it interacts with the emotions and feelings of the audience. Based on my personal experiences of two exhibition visits, no matter what presentation methods are both meaningful. I have been influenced by aesthetics and visual impact and eliminated some prejudices. More importantly, they have sparked my thinking about artistic innovation and development.

However, not all "black box" plus projection forms can be called immersive exhibitions. Immersion cannot exist on the surface of an experience; it must be

supported by deep thought and content delivery. Curators and artists should not overemphasize the application of science and technology while pursuing sensory stimulation. Instead, they should have a sense of problems and orientation in curatorial ideas and work creation, convey cultural concepts, express humanistic feelings, and better bring the audience into the works through a story or a theme, prompting the audience to consider the exhibition's connotation. Immersive exhibitions can thus be avoided as a venue for mass entertainment consumption. Visitors should, of course, improve their artistic aesthetics for immersive art to be as valuable as possible.

Because of the repeated outbreaks of the novel coronavirus epidemic, gathering places with high population density will be blocked and temporarily shut down. Art institutions are also gathering places, so the approach to digital transformation has shifted from passive to proactive. Previously, the curator confronted artists, works of art, and exhibition spaces directly; however, in the future, he will consider how to use digital thinking, concepts, and methods to recreate the art system from display to dissemination and re-explore the relationship between art exhibitions and society. Digital technology is the most common keyword in immersive exhibitions and a prerequisite for immersive exhibitions throughout these exhibitions. In Beck's (2023) words, "The historical perspective also makes it possible to retrace the development of the popular art canon through new forms of popular reception." The combination of exhibition works, and exhibition hall environments has become closer as the development of artificial intelligence, meta-universes, and other technologies has

blurred the boundary between reality and virtual reality and narrowed the distance between the audience and the works and exhibition hall space. An immersive exhibition is an art show for curators, an experimental field for artists, and an art event for the audience.

## **Chapter 3: The Digital Turn of Online/Virtual Exhibitions**

### **Introduction**

Digital technology breaks down the boundaries between the artist, the artwork, and the viewer to create an immersive experience that challenges our perception of curation. In the wake of the global pandemic, the art world, like many sectors, faced unprecedented challenges that changed the way art is created, disseminated, and experienced. The enforced isolation and closure of conventional exhibition spaces pushed digital media from the margin to the center stage, transforming it from an auxiliary tool to the main body of art's presentation. This chapter seeks to explore the multifaceted role of digital media in contemporary art, examining both the opportunities it presents and the challenges it poses. As the pandemic reshaped our interactions with reality and accelerated our immersion into digital realms, the art world's response through digital media offers a unique window into the evolving nature of cultural engagement. The transition to virtual galleries, online exhibitions, and digital art platforms has not only sustained but also expanded the reach of the arts during a time of social distancing and beyond.

Yet, this shift is not without its complexities; issues of accessibility, authenticity, and the sensory limitations of experiencing art through screens have emerged at the forefront of critical discourse. This chapter explores the significance of virtual exhibitions and the discussion on the authenticity of artworks, starting from my personal experience of visiting exhibitions and comparing conventional and virtual exhibits. Discuss the potential settings of the online exhibition for future innovations

in the post-pandemic era.

### **Thought-provoking Experiences**

In November of 2023, I have a chance to visit the exhibition *KAWS: FAMILY* at the Art Gallery of Ontario (AGO). This is a commercial exhibition of Brian Donnelly (1974), better known as KAWS, which starts with a specific space, connecting hallways as action routes, and containing paintings and sculptures by the artist. “In this original AGO exhibition, visitors will see firsthand the artist’s meticulous methods, creative process and range, through more than 75 artworks including wall murals, sketches, paintings, sculptures, his altered phone booth advertisements and product collaborations” (AGO, 2023). In the introduction of the official website, it is also specifically proposed that a “highlight of *KAWS: FAMILY* is two augmented reality (AR) artworks, *WATCHING* and *COMPANION (EXPANDED)*, located in Galleria Italia. To activate and share images of these artworks, visitors need to download to their personal mobile device the free Acute Art app.” At first, I did not pay much attention to this introduction, because in many modern museums, there has been a lot of digital technology penetration, such as electronic tours, scanning bar codes to generate introductions and scanning QR codes to generate virtual sculptures that can be rotated and viewed.

My undergraduate major was in sculpture, so I paid special attention to sculptural works at every exhibition. First, I look at the whole piece to understand the story or visual effect the artist wants to convey through the sculpture. Then, from the



works I observed, I guess the materials used and imagine in my mind how I would transform the raw materials into such a complete piece if it were me. After that, I will look at the exhibit's description, and I will be very happy if I guessed the materials correctly. This can be considered one of my little joys when visiting exhibitions.

During this exhibition of the KAWS visit, I noticed several interesting points. First, for better display effects in promotional images, all the pictures are the same size, and even though the dimensions of the works are marked, many exhibits are far different in size from what I had imagined. Seeing some sculptures about 50cm in length makes me marvel at their cuteness. When I stand in front of a two-meter-tall wooden sculpture, besides constantly wondering how the artist assembled it, I also realize that it is inevitable for any natural wood to crack, even such great artists are unavoidable.

Secondly, many visitors would mimic the poses of the sculptures to take photos with them, such as covering their eyes, embracing, or patting each other on the shoulder with friends. In addition to what I saw on the site, including my imitations, I also saw a lot of cute photos on social media. This kind of interaction with the exhibits is indeed one of the pleasures of visiting an exhibition.

After I finished taking pictures of those large sculptures, I saw two empty platforms that should have been used for the sculpture at the exhibition. Even more weird, a small group of people gathered around the blank platform, holding up cell phones and whispering. Some people were turning themselves, while others were rotating their phones. It was only when I got closer that I realized this was the display for virtual sculptures, and that reminded me of such a thing. I also took out my phone

to scan the code, and then I saw two sculptures. After I quickly browsed through the two AR sculpture works and turned off my phone, I thought the exhibition was over, but in fact, I was about to enter another hall. This conclusion is related to the layout of the exhibition venue, as well as my own biases. I never considered virtual sculptures to be a part of the entire exhibition, but merely an addition. It is like the easter eggs at the end of a movie, providing a distinct effect from the main plot and signifying its end. This experience triggered me to rethink why we need virtual sculptures or artworks in an exhibition.

### **Different Methods Different Focus**

Technological advancements have led to a broadening of web-based visual presentations. Online virtual exhibitions become the main channel for museums and art galleries, more and more attention is paid to the communication and entertainment provided by venues, and a variety of display methods are used to attract visitors to such exhibitions. For the general visitors, what we experience is what the curators and artists want to bring to us. Physical art exhibitions offer a different focus than virtual exhibits, specifically the impact on the individuals.

Physical art exhibitions focus more on the transmission of information. The artist's expression in their work and the curator's placement of the pieces are particularly important. Taking sculpture as an example, the interaction between the work and its surrounding space and environment also can be seen as "spatial art."

This form of art establishes a connection and interaction with the environment,

especially by integrating the sculptural work with a specific site. This involves the way the art pieces are arranged, as well as the design of lighting, background, and walls in the exhibition space. The volume, proportions, and form of the works can affect the perception and utilization of the surrounding space. Taking art installation as an example, such as Warhol's *Silver Clouds*, allows people to walk around and play with it. The presence of an installation even changes the way people behave in a space. By interacting with the surrounding environment, artworks can create a dynamic relationship within the space. Moreover, because of the concrete text information, it is easier for us to read and receive the story of the artwork.

In comparison with physical exhibitions, online exhibitions focus more on the interactive experience with the audience. In Kim and Hong's research "How Virtual Exhibition Presentation Affects Visitor Communication and Enjoyment: An Exploration of 2D versus 3D," they came to the same conclusion. The article points out:

The results suggest that the 2D presentation was more effective than 3D in terms of communication with visitors; in addition, the points at which the visitors' enjoyment differed according to the presentation method. In a 2D presentation, visitors were mostly concerned with the exhibition content and referred to their enjoyment of learning and acquiring new information. This is because the information can be perceived immediately, as it is principally presented in single layers with static images and text... In a 3D environment, visitors devote much of their time and attention to exploring the virtual space. This is related to visitors'

interest and enjoyment of being able to remotely explore an actual physical exhibition space through a monitor. (2020)

Compared to viewing artworks, there is a greater emphasis on the use and experience of electronic technology products. High-definition images, 360-degree panoramic displays and even interactive exhibits give users an unprecedented viewing experience. To be more specific, when I look at the virtual sculpture, I prefer to rotate it to see from the top and bottom of these strange angles that cannot be viewed as general I also like extreme zoom-in on the artwork to see a lot of details. My fingers became magnifying glasses like magic. At the same time, I found this difference may also be why we call people differently. With those who visit museums and art exhibitions, we often call “visitors” and “audiences,” and for those who participate in online experiences and virtual exhibitions, we often call “users.” This also reflects from the side that physical exhibitions and virtual exhibitions offer different focuses for the visitors’ experience.

Virtual reality technology has played a role in promoting the image era and broadened the research content of art. I know that many artists are beginning to use new technologies and extended digital platforms to express their creative ideas and show their artworks. The revolution brought by computers to human beings is unprecedented, and we can easily feel the consequences of this revolution. However, going to a contemporary exhibition is not about seeing the objects, but all about the experience you have there, which includes not only the work but also the interactions of viewers, the actual space of galleries and people taking photos. This is why

museums and galleries are important because of the way they literally impact the viewers.

### **The Intervention of VR in Art Galleries**

The initial virtual exhibitions of the 1990s were developed by the gradual advancement of technology and information systems. Povroznik Nadezhda says “The use of information technologies in museums, growth of the information environment of the GLAM (galleries, libraries, archives, and museums) sector, digitization and development strategies of digital collections, and introduction of technologies have long been the focus of attention of researchers.” He also meticulously outlines the history of museum digitization in his article *Digital History of Virtual Museums: The Transition from Analog to Internet Environment* (2020). Artworks on a virtual exhibition that are being displayed are the results of digitalization scanning through a 2D or 3D rendering process, then combined into a virtual platform that can be accessed by visitors simultaneously. Schubert Foo notes that “Virtual exhibitions are viewed as dynamic as they often undergo ongoing change in terms of design, activity and content, including encouraging users to contribute towards it, thereby adding to its dynamism” (2008). In the post-pandemic time, more independent digital media platforms have emerged and digital art creation. The art production systems of these platforms have taken on a distributed character, unconstrained by the physical and conceptual limitations of gallery and museum Spaces. They become not only spaces for the display of art, but also platforms for nurturing its production. Through these

platforms, artists can bypass traditional art institutions and engage with a more diverse audience. For the audience, rather than the artwork itself, they are more concerned about the new experience of art display brought by technology.

In recent years, virtual technology has received more and more attention in art galleries, enriching the content of exhibitions and connecting with visitors more engagingly. At the same time, virtual reality in art galleries is also highly controversial. Some people think the virtual space generated by technology makes the audience believe they are truly involved in it, experiencing wide and rich content in an unrestricted environment. As Zhou notes in the article *Virtual Reality in the Art Museum*: “Interaction suggests that the user is enabled to manipulate the virtual environment and receive immediate feedback. This motivates the visitor to form deeper engagement with the exhibition and make their own contribution to the content through explorative, embodied and joyful experiences” (2019). Moreover, the platform’s interactivity facilitates the delivery of comprehensive information to the audience. Relying on technology and the internet, it can take on diverse forms. According to Widjono,

A virtual exhibition portrays a way out to present a collection of artworks or artifacts that do not depend on time, distance, and space unlike art galleries or museums in general. Although a virtual exhibition has long been questioned for its ability to provide real experiences in observing the atmosphere, through the virtual exhibition people can have the opportunity to understand and learn about the work of art easily compared to a physical exhibition. (2020)

The seamless communication between the audience and the artist makes it easily accessible. The virtual exhibition and its displays produce immense appeal and visual attraction by advanced technology. Motivating a deeper level of interactive engagement between the visitors and the exhibition. To put it in detail, during my experience at the “Beyond Monet” immersive exhibition, I was struck by the visual impact of technology. The projection animated Monet’s strokes and I had to marvel at the breathtaking attraction brought by technology. As someone who traditionally paints with oils, this virtual display not only satisfied my curiosity but also sparked innovative thoughts for my future artworks.

Others think the digitization of exhibits has also raised concerns about authenticity. Some digital copies are often criticized as simplified versions of the original works, losing their original physical properties. Even in aesthetic communication, the original meaning will be misunderstood. Zhou points “In the art museum context, the viewer being present means more than being present in a temporal and spatial sense with the exhibits, but also being present within the cultural context created by the objects and the exhibition setting alike” (2019). As virtual exhibition lacks the actual physical perception of the exhibits, some visitors may feel that there is a gap from the actual visit, unable to truly feel the details, structure, and texture of the artworks. Just like physical artworks, such as oil paintings, sculptures wear out over time and in different exhibition venues. Light, humidity, and transportation can all bring about some physical changes. These markers are the medals of artworks given by time and nature. I do not think virtual artworks have such

natural traces of wear and tear. They remain eternally unchanged. This controversy of authenticity is very broad, it is better to return from the creative environment to the artwork itself.

When we discuss the accessibility and authenticity of an artwork, we need to focus on whether it is itself a web-based creation or an archive. Content is important. The Internet as the main medium has brought attention to this experimental art form. Relying on technology and the internet, it can take on diverse forms. In terms of web-based virtual works or exhibitions, it “leads to investigate how deeper concepts and meanings of an exhibition are communicated beyond the presentation of mere objects and creation of sensory spectacles” (Zhou, 2019). VR provides technical support for the realization of the intention of art creators seeking intended placement and contributes to the formation or production of artworks. The original creative environment, creative conditions and finished work keep the reality and can be seen are all “real.” In terms of archiving, the digitization of the collection provides convenience for the visitor, they are real, but the authenticity is not the main purpose the galleries wanted to focus on. For me as a general user, the value of the VR exhibition experience is entertaining and engaging. I got an experience different from traditional exhibitions, experienced the visual impact brought by technology, and saw artworks from all over the world without geographical boundaries. Discover and explore the many possibilities of “art.”

As a gathering point for artworks, curation, culture, technology, and human interaction, the contemporary art gallery is a complex place to explore conflicting



expectations, technologies, and interactive ideas that require exploring conflicting expectations, technology, and new ideas. For the art gallery, virtual media and physical exhibitions do not conflict. Digital platforms allow for innovative opportunities and interactive experiences. The shift to digital also offered operational efficiencies and valuable visitor insights through data analysis. This transition was further accelerated by the need to maintain accessibility during events like the COVID-19 pandemic, demonstrating the resilience and adaptability of cultural institutions in the digital age. The application of digital media will provide a useful resource for the decision-making of academics, curators, art museum professionals, etc., and provide a reference for further research on VR projects under the development of the art industry in the future.

## **Conclusion**

Drawing to the close, the use of digital tools in art exhibitions has been a significant step in the evolution of art presentations during this unexpected time. Although these tools have ensured the continuity of the arts during periods of isolation, they have also brought attention to the necessity of tactile and participatory experiences that define much of contemporary art. The first chapter emphasizes that while digital media can expand our sensory perception and participation, it cannot fully replace the immediacy as well as intimacy of physical interaction. The second chapter discusses the different visual impacts and sensory experiences brought by technology that is unprecedented by comparing the Monet exhibition and the immersive exhibition “Beyond Monet.” The third one talks about the virtual artworks were introduced into a physical exhibition space enhancing the overall experience for visitors and bringing controversy about virtual reality. All my personal experiences have displayed how digital tools use or change contemporary exhibitions during this time. The pandemic has taught us that while digital tools can extend the reach of art, they also bring to the fore the significance of physical presence and interaction of art. This awareness should not diminish the value of digital tools but rather inform their development, ensuring they complement rather than supplant the physical experience.

Digital media can make art exhibitions more open and accessible. Online exhibitions can cross geographical and time limitations, allowing more people to conveniently appreciate and participate in exhibitions, which helps to promote the dissemination and exchange of art and culture. In addition, digital media also provides

a new form of art exhibition, which can create a more immersive experience through technologies such as virtual reality and augmented reality. However, digital media exhibitions also face some challenges. For example, virtual exhibitions may not completely replace the real on-site exhibition experience because they cannot provide real interaction and emotional resonance between the audience and the works.

At the time of writing this research paper, we are still at the junction of the pandemic or post-pandemic times, and we are also in the era of rapid development of digital science. In the field of digital art research, we still have much to contemplate about the past, present, and future. My understanding of the analysis of art theory is based on researching my own and exploring the relationship between myself and the art world. This exploration of the unknown can drive me to keep learning, researching, and getting inspiration. The iteration of science and technology is rapid, and what we can record is very limited. Whether it is in response to the pandemic or the digitalization of curation, we are still at the beginning of a new chapter. For us at this moment, we are living in an “ongoing” era, which may be defined as “a historical turning point” in a few decades or a hundred years. This is the fascination of learning and recording art history, and it is precious to me to be able to discuss art development within this limited space.

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