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The Impact of AR Art on Social Awareness: A Case Study

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Abstract

The Purpose of Study: *This article aims to explore the role of augmented reality (AR) art in fostering social awareness and driving social change. The central focus is to understand how AR, as a new media art form, enhances audience engagement and emotional response through immersive interaction, making it a powerful tool for artistic activism.*

Literature Review/Background: *AR art offers a unique medium by overlaying digital elements onto the physical world, allowing audiences to become active participants rather than passive observers. This interaction deepens understanding and emotional investment in social issues. The study fills a gap in the literature by examining the impact of interactive AR art in challenging societal norms and evoking empathy, particularly in the context of women's rights and identity struggles.*

Method: *The research utilizes a case study approach, focusing on the AR artwork "My Stolen Identity," created by the author. This piece uses AR to explore the issue of violence against women's identity in Iran.*

Results: *The findings suggest that AR art significantly enhances audience engagement by transforming them into active participants. The immersive experience fosters empathy and a deeper understanding of complex social issues, such as the identity struggles faced by Iranian women. This interactive approach demonstrates the potential of AR art to spark meaningful dialogue and motivate social action.*

Conclusion: *AR art presents a revolutionary method for engaging audiences in social activism, with the power to challenge societal norms and inspire change. By immersing viewers in the issues at hand, AR art contributes to a more profound emotional and intellectual response, positioning it as a valuable tool in the fight for social justice, particularly in the area of women's rights.*

Keywords: *New Media Art, Augmented Reality, Social Awareness, Artistic Activism, Women's Rights*

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AR Sanatının Toplumsal Farkındalık Üzerindeki Etkisi: Bir Vaka İncelemesi

Öz

Çalışmanın Amacı: *Bu makale, artırılmış gerçeklik (AR) sanatının toplumsal farkındalığı artırmadaki ve toplumsal değişimi sağlamadaki rolünü incelemeyi amaçlamaktadır. Araştırmanın merkezi odak noktası, AR'nin yeni bir medya sanatı olarak, izleyici etkileşimini ve duygusal tepkileri nasıl güçlendirdiğini ve bu sayede sanatsal aktivizm için güçlü bir araç haline geldiğini anlamaktır.*

Literatür İncelemesi/Arka Plan: *AR sanatı, dijital unsurları fiziksel dünyaya yerleştirerek izleyicilerin pasif gözlemcilerden aktif katılımcılara dönüşmesini sağlayan benzersiz bir araç sunmaktadır. Bu etkileşim, sosyal konulara ilişkin anlayışın ve duygusal yatırımın derinleşmesini sağlar. Çalışma, özellikle kadın hakları ve kimlik mücadeleleri bağlamında, etkileşimli AR sanatının toplumsal normları nasıl sorguladığını ve empatiyi nasıl tetiklediğini inceleyerek literatürdeki boşluğu doldurmayı amaçlamaktadır.*

Yöntem: *Araştırma, yazar tarafından yaratılan "Çalınan Kimliğim" adlı AR eserine odaklanan bir vaka incelemesi yaklaşımı kullanmaktadır. Bu eser, İran'da kadınların kimliklerine yönelik şiddet sorununu AR aracılığıyla incelemektedir.*

Bulgular: *Bulgular, AR sanatının izleyici etkileşimini önemli ölçüde artırdığını ve izleyicilerin aktif katılımcılara dönüştüğünü göstermektedir. Bu etkileşimli deneyim, empatiyi artırmakta ve İranlı kadınların kimlik mücadeleleri gibi karmaşık sosyal konuların daha derin bir şekilde anlaşılmasını sağlamaktadır. Bu interaktif yaklaşım, anlamlı bir diyaloğun başlamasına ve toplumsal eylemlerin teşvik edilmesine olanak tanımaktadır.*

Sonuç: *AR sanatı, toplumsal aktivizmde izleyicileri dahil etmenin devrim niteliğinde bir yöntemini sunmakta olup, toplumsal normları sorgulama ve değişim ilhamı verme gücüne sahiptir. İzleyicileri ele alınan sorunların içine çekerek, AR sanatı daha derin bir duygusal ve entelektüel tepkiyi teşvik eder ve bu da onu özellikle kadın hakları alanında toplumsal adalet mücadelesinde değerli bir araç haline getirir.*

Anahtar Kelimeler: *Yeni Medya Sanatı, Artırılmış Gerçeklik, Toplumsal Farkındalık, Sanatsal Aktivizm, Kadın Hakları*

1.Introduction

The Raree Show, also known as a "peep show" or "peep box," can be seen as one of the earliest attempts to immerse viewers in virtual or alternative realities (Figure 1) . Dating back to the 17th and 18th centuries, the peep show involved a small, portable box with a series of images or miniature scenes that could be viewed through a lens or a hole, often enhanced by

light and shadow to create depth and perspective. These boxes offered a form of visual storytelling, allowing the audience to peer into a different world, albeit on a much simpler scale than modern virtual reality (Huhtamo, 1995). The experience, while static and limited to visual perception, gave spectators a brief escape into carefully crafted scenes, whether of distant cities, dramatic events, or exotic locations, stimulating the imagination and offering a preview of the desire for immersive environments.

Figure 1: A boy looks into a peep show device (illustration by Theodor Hosemann, 1835)

The appeal of these early devices lay in their ability to create a sense of spectacle and wonder, a precursor to modern immersive technologies like virtual reality. The Raree Show became popular at fairs and on street corners, where showmen would travel with their boxes to offer glimpses of these miniature worlds in exchange for a small fee. Although limited by the technology of the time, the peep show can be regarded as an early form of "virtual" experience, providing a window into another reality through the manipulation of visual effects and audience engagement (Altick, 1978). This fascination with visual immersion and illusion persisted, eventually inspiring more sophisticated attempts to create simulated environments.

The concept of virtual reality (VR) and the desire to immerse oneself in a virtual world date back to the mid-20th century, with early attempts rooted in creating simulated experiences that could transport users beyond physical reality. One of the first pioneering efforts was Morton Heilig's "Sensorama" in 1962, a mechanical device that simulated a multi-sensory cinematic experience (Figure 2). Heilig's machine combined 3D visuals, stereo sound,

vibrations, and even scents to give users an immersive experience, marking a significant early step toward what we now recognize as virtual reality (Heilig, 1962). Although Sensorama lacked the interactive capabilities of modern VR, it laid the groundwork for future development by focusing on creating an all-encompassing sensory environment.

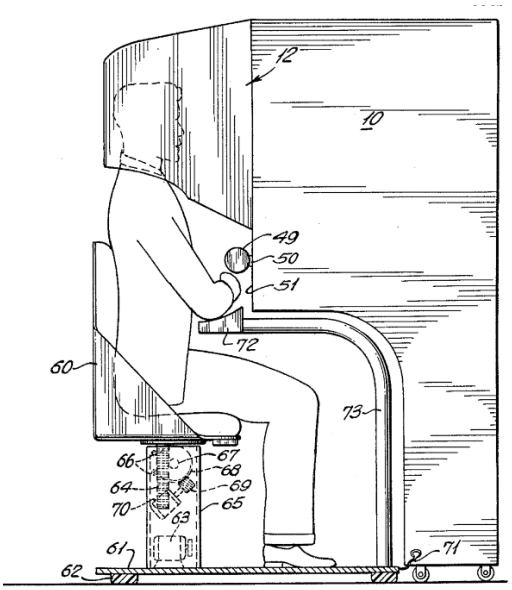

Figure 2: Illustration of Morton Heilig's Sensorama device, precursor to later virtual reality systems.

Another critical early attempt was the development of the "Sword of Damocles" by Ivan Sutherland and his student Bob Sproull in 1968. Regarded as the first head-mounted display (HMD), this system allowed users to view basic wireframe graphics that responded to head movements, providing a rudimentary form of VR interaction. While the device was bulky and impractical for general use, it represented a monumental leap in the quest to create a virtual world by integrating visual immersion with real-time responsiveness (Sutherland, 1968). This invention established the foundation for modern VR systems, as it introduced the concept of spatial interaction with virtual objects, paving the way for more advanced immersive experiences.

Humans have long sought to reach virtual reality or immersive worlds due to a deep desire for escapism, exploration, and the expression of imagination. One of the primary reasons is the inherent human drive to escape the limitations of the physical world and explore alternative realities. From ancient myths and religious rituals to art and storytelling, humans have

always crafted alternate worlds as a way to transcend the mundane and envision something beyond their immediate surroundings. Virtual reality provides a powerful technological tool to fulfill this age-old desire for new experiences, offering immersive environments where people can break free from the constraints of time, space, and even identity (Bailenson, 2018). It allows us to explore worlds we might never otherwise encounter, enhancing creativity and enabling unique forms of artistic expression and personal transformation.

2. Literature Background

2.1. Understanding Human Demands for Virtual Reality

Human demands for virtual reality (VR) are multifaceted and stem from various psychological, technological, and social factors. At the core of these demands is the pursuit of enhanced immersion. VR provides a heightened sense of presence and engagement, creating experiences that traditional media formats cannot offer. This immersive quality allows users to feel as though they are physically inside a different environment, effectively transcending the limitations of flat, two-dimensional screens (Slater & Wilbur, 1997). Such immersive experiences are particularly valuable in entertainment and gaming, where VR introduces interactive and dynamic content that offers users a deeper level of engagement and interaction (Freeman et al., 2009).

The demand for VR is also driven by its applications in realistic simulations and training across various fields. In aviation, medicine, and military training, VR enables users to practice complex tasks and scenarios in a controlled and risk-free environment. This practical application of VR not only enhances skill development but also improves safety and efficiency in high-stakes professions (Klevberg, 2017). For example, pilots can simulate emergency procedures, medical professionals can practice surgical techniques, and soldiers can undergo tactical training without the associated risks of real-world training exercises.

Moreover, VR facilitates novel forms of social interaction and collaboration. As digital connectivity increases, there is a growing need for new ways to connect and interact with others. VR offers virtual spaces where users can network, socialize, and collaborate in immersive environments, bridging geographical and physical barriers (Bailenson et al., 2008). This capacity for creating virtual communities and social gatherings aligns with the broader trend of digital socialization and remote work.

In the realm of creative expression, VR presents new opportunities for artists and creators to explore innovative forms of storytelling and artistic presentation. By allowing users to interact with and explore art in three dimensions, VR expands the possibilities of artistic expression and

audience engagement (McCormick, 2016). This new medium enables artists to create experiences that are both participatory and immersive, offering audiences a more interactive relationship with art.

Therapeutically, VR has demonstrated its value in various health contexts. It is used in exposure therapy for phobias, pain management, and relaxation techniques. By immersing patients in controlled virtual environments, VR aids in psychological and physical healing processes, making it a versatile tool in mental health treatment (Hoffman et al., 2001). For example, patients undergoing physical rehabilitation can use VR to perform exercises in engaging virtual settings, which can enhance motivation and adherence to therapy.

VR caters to the human desire for exploration and escapism. It provides an avenue for users to experience fantastical worlds and scenarios that would be otherwise inaccessible. This aspect of VR appeals to individuals seeking new experiences and adventures beyond the constraints of everyday life (Cummings & Bailenson, 2016). Whether it's exploring distant planets, historical recreations, or entirely imaginary landscapes, VR offers a form of escapism that fulfills the human curiosity for the extraordinary.

2.2. AR Art: The Convergence of Technology and Creativity

The evolution of Augmented Reality (AR) art represents a convergence of technology and creativity, opening new avenues for artistic expression and social engagement. As AR technology advanced, its potential to transform art became increasingly evident, resulting in a dynamic interplay between the digital and the physical worlds. This evolution can be traced through key developments in AR technology, its adoption by artists, and its impact on social awareness.

Augmented Reality, which overlays digital content onto the physical environment, began as a technical innovation in the late 20th century. The foundations of AR can be traced back to Ivan Sutherland's (1968) development of the first head-mounted display system, which allowed users to interact with digital objects in real space. This innovation was pivotal in conceptualizing the merging of virtual and real environments, setting the stage for further advancements in AR technology.

By the 1990s, the potential of AR was increasingly explored in both industry and academia. Milgram and Kishino (1994) introduced the concept of the "Virtuality Continuum," which places AR between the real environment and virtual reality (VR), emphasizing its ability to enhance real-world experiences with computer-generated imagery. AR soon gained

traction in various fields, including art, as it allowed artists to extend their creative practices beyond the limitations of traditional media.

AR's ability to superimpose digital elements onto real-world settings made it an attractive medium for artists seeking to explore the boundaries of physical and virtual spaces. Artists began using AR as a tool to create interactive and immersive experiences, transforming both the content and context of art. Early experiments in AR art focused on augmenting public spaces, galleries, and museums with digital layers of information and imagery.

One of the earliest and most notable examples of AR art was Rafael Lozano-Hemmer's "*Vectorial Elevation*" (2000), which allowed participants from around the world to remotely control searchlights in Mexico City via a web interface. Although this work predated the widespread use of AR as we understand it today, it foreshadowed AR's capacity to facilitate real-time interaction between the virtual and physical realms. By the 2010s, with the advent of mobile devices capable of supporting AR applications, the use of AR in art became more accessible and widespread.

Christine Paul (2003) highlighted the significance of digital art, including AR, in reshaping how art is created, displayed, and perceived. According to Paul, AR art breaks down traditional boundaries, offering new opportunities for interaction and engagement. Artists such as Tamiko Thiel and Sander Veenhof leveraged mobile AR technology to create site-specific artworks that invited viewers to interact with their surroundings in novel ways. For example, Thiel's work "*ARt Critic Face Matrix*" (2011) challenged the role of the art critic by overlaying virtual elements on physical gallery spaces, thereby questioning the gatekeeping role of institutions in the art world.

2.3. Interactive Art: An Evolutionary Approach to Artistic Engagement

Interactive art represents a significant departure from traditional static art forms by incorporating dynamic elements that require active participation from the audience. This genre of art emerged from the intersection of technological innovation and artistic experimentation, evolving through various phases of technological advancement.

The origins of interactive art can be traced to early 20th-century movements such as Dada and Constructivism, which introduced unconventional methods of engaging viewers (Greenberg, 2013). However, the concept of interactive art gained substantial momentum in the 1960s and 1970s with the advent of electronic media. Pioneering artists like Nam June Paik

and Wolf Vostell utilized video and television to create works that responded to viewer interactions, thus broadening the scope of artistic engagement (Young, 2004; Gidal, 2008).

The 1980s and 1990s marked a period of rapid expansion in interactive art, fueled by the rise of personal computing and digital technology. During this era, artists began using computer-based tools to develop interactive installations that allowed users to influence and alter the artwork through their inputs (Paul, 2003). This technological integration facilitated a more immersive and participatory experience, reflecting a shift in artistic practices towards greater audience involvement.

In contemporary practice, interactive art has further evolved with advancements in virtual reality (VR), augmented reality (AR), and artificial intelligence (AI). These technologies enable artists to create highly immersive environments where the audience's interactions can shape the experience in real-time, pushing the boundaries of traditional artistic forms (Bishop, 2012). This evolution underscores the ongoing relationship between art and technology, highlighting how interactive art continues to challenge and redefine the role of the audience in the artistic process.

Artists have explored interactivity in their artworks since the early 20th century, driven by a desire to break away from traditional passive art forms and engage audiences in new and dynamic ways. The exploration of interactivity in art can be divided into several key phases:

1. **Early Experiments (1910s-1960s):** The concept of interactivity in art began to take shape with early 20th-century movements such as Dada and Constructivism. Artists like Marcel Duchamp, with his "readymades," challenged traditional notions of art and invited viewers to question the role of the artist and the audience. Additionally, Russian Constructivists like El Lissitzky and Vladimir Tatlin experimented with new forms of visual representation and the integration of technology, laying the groundwork for interactive art (Greenberg, 2013).

2. **The Rise of Cybernetics and Early Interactive Art (1960s-1970s):** The 1960s marked a significant shift as artists began to incorporate technology into their work, influenced by developments in cybernetics and computer science. Pioneering artists like Nam June Paik and Wolf Vostell explored the use of electronic media, such as television and video, to create interactive experiences. Paik's work with video feedback and Vostell's integration of television sets into installations reflected a growing interest in the interaction between technology and art (Young, 2004; Gidal, 2008).

3. Digital and Interactive Art (1980s-1990s): The advent of personal computing and digital technologies in the 1980s opened new possibilities for interactive art. Artists began using computer-based tools to create art that responded to user inputs, leading to the development of digital installations and interactive art. This period saw the emergence of artists like Laurie Anderson and Jaron Lanier, who experimented with interactive technologies and virtual environments (Paul, 2003).

4. Contemporary Practices (2000s-Present): In the 21st century, the rise of advanced technologies such as virtual reality (VR), augmented reality (AR), and artificial intelligence (AI) has further expanded the scope of interactive art. Contemporary artists use these technologies to create immersive and participatory experiences, allowing audiences to engage with art in novel ways. This evolution reflects a broader trend towards integrating technology into artistic practices and exploring the boundaries of human interaction with digital media (Bishop, 2012).

Motivations for Interactivity in Contemporary Art: Interactivity in art represents a transformative shift from traditional static forms of artistic expression to more dynamic and participatory experiences. This evolution is driven by several factors, including the desire to enhance audience engagement, explore new technological possibilities, and challenge conventional notions of art. Artists pursue interactivity for a range of reasons, each contributing to the broader development of contemporary art practices.

Enhanced Audience Engagement: One of the primary motivations for incorporating interactivity in art is to deepen audience engagement. Interactive art allows viewers to actively participate in the artistic process, thereby creating a more immersive and personalized experience. By involving the audience in shaping the artwork, artists can foster a sense of connection and involvement that is often absent in traditional art forms (Graham & Cook, 2010). This engagement is not only about physical interaction but also about stimulating intellectual and emotional responses, which can lead to a more profound impact on the audience.

Exploration of Technological Innovation: The integration of technology into art provides artists with new tools and mediums to explore. The rapid advancement of digital technologies, including virtual reality (VR), augmented reality (AR), and interactive installations, has expanded the possibilities for artistic creation (Paul, 2003). Artists are drawn to these technologies for their potential to create novel forms of expression and to experiment with new ways of interacting with their audience. The use of technology in art allows for the exploration of concepts such as virtual spaces, real-time feedback, and interactive narratives, pushing the boundaries of traditional artistic practices (Bishop, 2012).

Challenge to Traditional Art Forms: Interactive art also serves as a critique and reimagining of traditional art forms. By moving beyond static representations and inviting active participation, artists challenge established norms regarding the roles of the artist and the audience. This approach redefines the artistic process, shifting the focus from the creation of fixed objects to the generation of experiences that evolve through interaction (Cameron, 2018). This challenge is not merely aesthetic but also philosophical, questioning the nature of art and its relationship with viewers.

Reflection of Modern Society: The pursuit of interactivity in art mirrors broader societal trends towards increased interaction with digital media and technology. As society becomes more engaged with digital platforms and interactive technologies, artists reflect these changes in their work. Interactive art can address contemporary issues such as digital communication, identity, and social dynamics, making it relevant to current cultural and technological contexts (Graham & Cook, 2010). This relevance helps artists connect with audiences in meaningful ways, resonating with the experiences and challenges of modern life.

2.4. Interactive Art for Social Awareness

The earliest significant use of interactive art for social awareness can be traced to the late 20th century when artists began to explore how interactivity could serve as a tool for addressing and reflecting on social issues. A seminal example of this approach is Myron Krueger's "Videoplace," which was developed in 1975. Krueger's work was among the first to use interactive environments to engage users and facilitate a form of dialogue that could reflect on broader social issues (Krueger, 1991).

In the 1980s, Jenny Holzer's use of electronic text displays marked a significant development in interactive art as a vehicle for social commentary. Holzer's installations, such as those featuring her "Truisms," employed LED technology to present provocative texts that addressed political and social issues, thus engaging the public in critical discourse (Harris, 2004).

The 1990s further expanded the use of interactive art for social activism with the rise of networked art and digital media. The Electronic Disturbance Theater (EDT), for instance, utilized the internet to stage virtual protests, drawing attention to social and environmental issues and demonstrating the potential for interactive art to function as a tool for activism (Schneider, 1999). These developments illustrate the evolution of interactive art from a technological novelty to a significant medium for social awareness and engagement.

3. Case Study Approach

In this research, a case study approach is adopted to explore the use of augmented reality (AR) in contemporary art as a tool for promoting social awareness. This methodology enables a comprehensive analysis of selected artwork, with a primary focus on *My Stolen Identity* by Iranian artist and academician Nafise Motlagh (Figure 3).

This AR-based interactive artwork addresses the consequences of Iran's compulsory hijab laws. The case study method allows for a detailed examination of the artistic techniques employed, the socio-political context in which the artwork exists, and its impact on audiences.

Figure 3: "My Stolen Identity", Istanbul IAAF Art Fair 2022

For decades, Iranian women have been fighting for their civil rights, particularly against mandatory hijab laws. Since the early years of the Islamic Revolution in 1979, they have organized protests, utilized various civil tools, and persistently sought to amplify their voices for change. Artists have played an integral role in this struggle, leveraging diverse mediums such as photography, film, graphic design, painting, and music to raise awareness, spark dialogue, and engage audiences with the realities of this critical issue.

Motlagh's *My Stolen Identity*, exhibited at the Istanbul IAAF Art Fair 2022, merges photography and AR as a contemporary medium to provoke reflection and foster interaction. In this artwork, Motlagh presents two self-portraits: one with a socially imposed mandatory hijab and another with a more religious, voluntary hijab. Visitors are invited to use a smartphone or tablet via the Artivive Application to explore these images in an AI-enhanced virtual space.

The first portrait, symbolizing the artist under the mandatory hijab, transforms into an image of her with free-flowing hair, representing her true identity and the freedom of personal choice. In contrast, the second portrait, depicting her in a voluntarily chosen religious hijab, remains unchanged. This interactive experience challenges viewers to reflect on the profound implications of personal choice, societal norms, and the imposition of identity.

Motlagh underscores the emotional and psychological cost of losing one's autonomy through a powerful accompanying statement:

"Self-identity is essential to emotional well-being. It builds courage and self-esteem, making us unique and distinguishing us from others. Like everyone, I have the right to embrace my true self and be who I am. However, since birth, my identity has been violated by the rules in Iran. To access my right to education, I was forced to alter my identity, covering my hair and body at the age of six. From that moment, I've had to adopt a false identity every day just to work and exist in public. Even women who genuinely believe in the hijab are subjected to a prescribed dress code under this law. In Iran, only religious women who voluntarily believe in the hijab can live with their true identity. Through this artwork, I reclaim my stolen identity!"

Motlagh's work is a testament to how contemporary art, combined with emerging technologies like AR, can powerfully address socio-political issues, engage audiences, and inspire discourse about freedom, identity, and resilience.

3.1. Background and Context of Artwork

The Women, Life, Freedom movement in Iran is a protest movement that started in September 2022 after the death of Mahsa (Jina) Amini, a young Iranian woman who was arrested by the morality police for not wearing hijab correctly. The movement demands the end of compulsory hijab laws and other forms of discrimination and oppression against women in Iran.

Women and men were taking to the streets all across Iran, outraged over the slew of social ills symbolized in Amini's death—the subjugation of women, the repression of minorities, religious chauvinism, police brutality, and government corruption. The movement has been met with brutal repression by the Iranian authorities, who have killed hundreds of protesters and arrested thousands more.

3.2. Features of The Artwork

1. **Augmented Reality Integration:** The project features portraits of women affected by the hijab law. When viewed through an AR app or device, these portraits come to life with additional layers of content. This may include personal stories, video testimonials, or interactive elements that provide context and emotional depth to the images.

2. **Interactive Elements:** Viewers can interact with the AR components to explore various aspects of the hijab law's impact. This might involve tapping on different areas of the image to access multimedia content or experiencing a virtual overlay that provides historical and social information about the law.

3. **Narrative Depth:** The AR elements aim to humanize the issue by sharing individual stories and experiences. This approach helps to personalize the broader social issue, making it more relatable and impactful for viewers. The combination of visual art and interactive technology invites deeper engagement and empathy.

3.3. Significance of the Artwork

"My Stolen Identity" serves as a powerful commentary on the social and political constraints imposed on women in Iran. By leveraging AR technology, Motlagh provides a platform for women's voices and experiences, fostering a greater understanding of their struggles and resilience. The project not only highlights the personal impact of the hijab law but also encourages viewers to reflect on broader issues of freedom and identity.

4. Summary and Result

The evolution of new technologies, particularly in the realm of augmented reality (AR), has significantly impacted the field of art, opening new avenues for artistic expression and audience engagement. Artists have increasingly adopted interactive technologies to create immersive experiences that transcend traditional boundaries. From the early experiments with interactive media in the late 20th century to contemporary applications, such as AR, artists have sought to leverage these innovations to enhance their work's interactivity and impact. The shift towards incorporating technology into art has not only broadened the scope of artistic practices but also transformed how audiences engage with and experience art.

My Stolen Identity stands out as a poignant example of art's ability to challenge societal norms and provoke dialogue. By integrating AR into a deeply personal narrative, the artwork invites audiences to reflect on the complex relationship between self-identity, cultural expectations, and personal freedom. The interactive nature of the piece ensures that the audience is not merely passive observers but active participants who engage directly with the work. This engagement fosters a deeper understanding of the oppressive impact of mandatory hijab laws in Iran and the broader struggle for women's rights. The ability to transform static imagery into a dynamic storytelling medium allows the artist to emphasize the contrast between imposed identities and authentic self-expression.

AR's incorporation into art has revolutionized the way audiences interact with and perceive creative works. Unlike traditional mediums, AR enables a multi-dimensional experience that bridges the physical and virtual realms. In *My Stolen Identity*, AR empowers the artist to convey a message that evolves as the audience interacts with the work, offering layers of meaning that might not be possible with static forms of art. This dynamic approach facilitates greater emotional resonance and intellectual engagement, making the issues presented more relatable and impactful.

Moreover, AR in art democratizes access to narratives and perspectives that might otherwise remain unheard. The accessibility of AR through widely available tools like smartphones ensures that artworks such as *My Stolen Identity* reach diverse audiences across geographies and demographics. By doing so, AR-based art not only raises awareness but also cultivates empathy and understanding among viewers, potentially inspiring action and dialogue.

In summary, *My Stolen Identity* highlights the unique capacity of AR to amplify the voice of marginalized communities and foster critical conversations about pressing social issues. The artwork exemplifies how the integration of technology into art can transcend aesthetic boundaries, making it a powerful medium for advocacy and social change.

REFERENCES

ALI, H. (2021). I Am a Refugee. *International Journal of Art and Technology, 14*(3), 245-259. https://doi.org/10.1504/IJART.2021.000000

BAILENSON, J. (2018). *Experience on demand: What virtual reality is, how it works, and what it can do.* W.W. Norton & Company.

BAILENSON, J. N., BLASCOVICH, J., BEALL, A. C., & LOOMIS, J. M. (2008). Immersive virtual reality for rehabilitation. *Journal of Rehabilitation Research and Development, 45*(6), 775-786. https://doi.org/10.1682/JRRD.2008.02.0027

BISHOP, C. (2012). *Artificial hells: Participatory art and the politics of spectatorship.* Verso.

CAMERON, J. (2018). *Interactive art and the digital age: Art and technology in contemporary practice.* Routledge.

CUMMINGS, J. J., & BAILENSON, J. N. (2016). How immersive is enough? A meta-analysis of the effect of immersive technology on user presence. *Media Psychology, 19*(2), 272-309. https://doi.org/10.1080/15213269.2015.1015740

FREEMAN, D., BRADLEY, J., & ANTLEY, A. (2009). Virtual reality in the assessment, understanding, and treatment of mental health disorders. *Journal of Behavior Therapy and Experimental Psychiatry, 40*(3), 309-318. https://doi.org/10.1016/j.jbtep.2008.10.007

GIDAL, P. (2008). *The work of Wolf Vostell.* Thames & Hudson.

GRAHAM, B., & COOK, S. (2010). *Rethinking curating: Art after new media.* MIT Press.

GREENBERG, C. (2013). *Russian constructivism.* Yale University Press.

HARRIS, J. (2004). Jenny Holzer's "Truisms": An Art of Political Texts. *Journal of Contemporary Art Studies, 12*(3), 55-72. https://doi.org/10.1080/10606240490453029

HEILIG, M. (1962). Sensorama simulator (U.S. Patent No. 3,050,870). U.S. Patent and Trademark Office. Retrieved from https://patents.google.com/patent/US3050870A

HOFFMAN, H. G., GARCIA-PALACIOS, A., & CARLIN, A. S. (2001). Virtual reality as an adjunctive pain control during wound care for patients with complex regional pain syndrome: A case study. *CyberPsychology & Behavior, 4*(6), 527-535. https://doi.org/10.1089/109493101753235878

KLEVBERG, K. M. (2017). Virtual reality for training: The future of simulation. *Training & Development Journal, 21*(4), 45-56. https://doi.org/10.1080/09593985.2017.1285382

KRUEGER, M. (1991). *Artificial reality.* Addison-Wesley.

LOZANO-HEMMER, R. (2000). Vectorial Elevation. Retrieved from https://www.lozano-hemmer.com/vectorial_elevation.php

MILGRAM, P., & KISHINO, F. (1994). A taxonomy of mixed reality visual displays. *IEICE Transactions on Information and Systems*, *77*(12), 1321-1329.

McCORMICK, M. I. (2016). The role of virtual reality in creative expression and storytelling. *Journal of Creative Technologies, 12*(1), 56-67. https://doi.org/10.1080/10109785.2016.1145179

OETTERMANN, S. (1997). *The panorama: History of a mass medium.* Zone Books.

PAUL, C. (2003). *Digital art.* Thames & Hudson.

SCHNEIDER, R. (1999). The Electronic Disturbance Theater and the future of digital protest. *International Journal of Art and Technology, 3*(4), 245-259. https://doi.org/10.1504/IJART.1999.000000

SKARBEZ, R., BROOKS, A. L., & WHITTON, M. C. (2017). A survey of presence and related concepts. *ACM Computing Surveys (CSUR), 50*(6), 1-39.

SLATER, M., & WILBUR, S. (1997). A framework for immersive virtual environments (FIVE): Speculations on the role of presence in virtual environments. *ACM Transactions on Computer-Human Interaction, 2*(3), 204-235. https://doi.org/10.1145/263735.263740

SUTHERLAND, I. E. (1968). A head-mounted three-dimensional display. *Proceedings of the Fall Joint Computer Conference, 33*, 757-764. https://doi.org/10.1145/1476589.1476686

YOUNG, S. (2004). *Nam June Paik: Exposition of music – Electronic television.* MIT Press.