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# AI-Driven Immersive Experiences in Pakistani Cultural Narratives

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## ABSTRACT

**Aim of the study:** The aim of the research is to elaborate the link between AI and immersive technologies that can easily change the depiction and conservation of our precious cultural heritage. It can easily be done by generating different means of communication with different historical places. Pakistan is a nation that is notoriously enriched with traditions, cultural heritage and architectural buildings. All these sources can act as different opportunities for the purpose of reimaging and conserving the culture with the help of different cultural tools.

**Methodology:** This research basically explains the contribution of AI in generation of different experiences that are immersive in nature and can be used to This review critically discusses the AI contribution in creating immersive experiences that recreate, conserve, and interpret Pakistani cultural narratives using virtual reality (VR), augmented reality (AR), and machine learning (ML). In analyzing the latest developments in AI-based digital reconstructions, interactive narrative, and virtual creation of museums, this paper discusses how such technologies promote accessibility, learning, and cultural continuity.

**Findings:** It examines the ethical and epistemological issues of digital heritage, such as authenticity, data bias, and the digital divide. Overall, this research emphasizes how immersive experiences powered by AI can close the gap between past and present, reshaping cultural experience for generations to come.

**Conclusion:** AI-powered immersive technologies hold transformative potential for preserving and reimagining Pakistan's cultural heritage. While they open new avenues for cultural engagement and historical preservation, they also require careful navigation of issues such as data bias and digital inequality. Ultimately, these technologies offer a promising path toward reshaping cultural experience and ensuring heritage continuity for future generations.

**Keywords:** Immersive Art, Artificial Intelligence, Culture, Heritage.

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## 1. INTRODUCTION

It has always reflected human society, manifesting the values, problems, and successes of society. Technology has always been changing the way art is depicted over the years, with each new medium and style challenging conformity. The Industrial Revolution opened up new materials and new techniques,

which unlocked even more avenues for artistic expression (Ahmad & Hussain, 2023). During the 20th century, Cubism and Surrealism art movements broke away from the normal way of understanding, creating today's art forms. Each technological revolution has given the artist more instruments with which to express her/his imagination, creating the explosion of forms and the democratization of art. Artificial Intelligence, encompassing machine learning, neural networks, and deep learning, has emerged as a revolutionary force in every industry, including art. AI enables machines to learn from data, detect patterns, and make choices, enabling the production of novel and interactive art. Artists now collaborate with AI to generate artworks, compose music, and design immersive installations, expanding the limits of conventional authorship and creativity (Alsamh et al., 2024). In Pakistan, a nation popular for its cultural artistic heritage, the integration of AI into the art world is constructing a clear union of tradition and innovation (Arshad et al., 2024).

This fusion is generating experience-based entertainment that interacts with audiences on multiple sensory levels by bridging the nation's folk histories with state-of-the-art technology (Dixit et al., 2024). Pakistan's first Spatial AI Center, in partnership with international organization EON Reality's installation, holds the potential to revolutionize education and training through immersive technologies. However, integrating AI into Pakistani art is not without issues (Hussain & Almomani, 2025). However, worldwide, AI-generated art challenges originality and authenticity since algorithms resample data already in existence rather than creating from experience. This raises concerns about the traditional concept of artistic intention and authorship, with controversies surrounding who the actual creator is among AI, the programmer, or the user. Legal and ethical concerns are also raised related to ownership, creativity, and intellectual property rights. Availability of advanced technologies remains restricted by infrastructural and economic constraints, which may extend the digital divide among artists. This essay briefly suggests the issues of intellectual property rights of AI created arts in Pakistan, because this topic demands another special article. Future prospects for the Pakistani case of joining AI and art have sparkling possibilities (Khan & Sabahat, 2024).

Emerging artists can be given the tools they need to handle this multidisciplinary art practice through educational programs that integrate AI and digital art. New artwork can be created with the help of collaboration with different artists and cultural organizations and technologies along with coordination with the tradition. Due to the advancements in artificial intelligence it plays a very important role in influencing different artists of Pakistan and hence creating artistic expressions that can catch the attention of different type of audience. The transformation of AI into artistic expressions can be done with the help of artificial intelligence in different art sectors it has opened many knew channels for different audience in which they can participate and can give artistic expressions. AI has become very influential and is considered as a contemporary medium of art in Pakistan, a country where cultural heritage is enriched and there are new captivating experiences about technology and tradition that can be blended in different forms (Mehmood et al., 2024).

Different organizations in Pakistan’s and different type of artists are using artificial intelligence to generate many immersive and interactive artworks that depict their culture and history in different ways. With the help of different tools, a campaign by a I artist can use them in calligraphy in different miniature paintings and many kinds of traditional motives to produce new artwork that can be combined with the modern and traditional sensibilities. Different type of AI powered tools can be used for the generation of variable artworks e.g. miniature paintings, calligraphy, and many kinds of installations that can act as an interactive tool to connect with the audience. These installations are accompanied by machine learning that can be used increase the participation of audience and engaging them with the cultural heritage and traditions. Lost culture and traditional artifacts can also be restored and can kept in virtual environment that can be advantageous for using generative art. When realistic recreations are provided having locations of historical heritage it can devolve evaluated into a real time experience of connection with the culture and art can play a vital role in doing so (Memon et al., 2025).

Second, "Folkloristan"; an exhibition employs digital art to celebrate Pakistan's folklore and tradition, curated by music to bring about sensory experiences (Salman 2023). Many institutions present in Pakistan are accepting a AI and using them for different educational and cultural purposes and it is considered as a very important tool there are many cases that have been discussed earlier one of which is National History museum which is a present in Lahore. the basic purpose of AI powered tool is to incorporate the components which can interact with different visitors and it can encounter their interactive experience with the history of the country (Yu, Raed et al. 2025). National History Museum (NHM) is one such instance of leveraging technology, interactivity and AI for engaging young minds with the historical narratives.

### *1.1 Objective of the Study*

The basic purpose or objective of the study is to generate a link between traditional and cultural heritage with artificial intelligence and transforming and into Pakistani or scenario that can develop a deep connection between the modern era that lack the knowledge about their culture and tradition. Similarly, it also elaborates that how different Pakistani do institutions and artists can re imagine and reinterpret the conserved cultural heritage with the help of AI generated technologies for example virtual reality machine learning and many kinds of interactive installations. dynamics are shifting day by day and life is moving towards more innovative era in which our culture is diminishing this study can help to recover and relive those cultural heritages and it also study to examine the issues behind the authorship intellectual properties authenticity and accessibility in generating AI art.

### *1.2 Significance*

This research is very important because it highlights the role of artificial intelligence in changing the perspective of how AI can be used and how art can be collaborated with AI to reimagine and renovate different cultural heritages that are reserved in Pakistan. Pakistan is a country which is very rich and have wide range of historical and artistic traditions, which is enriched with culture and traditional heritage. This study also plays a very vital role to have a better understanding that how the empathetic can be grown between technology and traditional and how artificial intelligence can reimagine the heritage with the help of immersive and interactive art media. It also plays a very important role in drawing attention on the way AI can be used and how the tools of AI can be used for preserving cultural heritage. For example, information to artist, educators, cultural organizations and also navigating the policymakers that are evolving the environment without being identified conserving tradition which is high risk of vanishing. This research raises a very significant legal social question about authorship, digital assess, intellectual property, information to artist, educators, cultural organizations and navigating the policymakers that are evolving the environment without being identified.

## 2. METHODOLOGY

Through a critical literature review and case study analysis, this study primarily uses a qualitative research approach. To learn how AI technologies like machine learning, neural networks, virtual reality (VR), and augmented reality (AR) are influencing art practices and cultural heritage in Pakistan, relevant academic sources, articles, and online archives were examined. The study includes a review of significant initiatives and programs, such as the National History Museum's use of AI-powered interactivity, the "Folkloristan" digital arts exhibition, and Rehmatullah Mirbahar's AI-based recreation of Mohenjo Daro. The intersection of AI, heritage, and creative expression is examined through the use of these cases as empirical examples. The research also examines policy reports and current arguments to examine the ethical, legal, and technological issues, especially concerning intellectual property rights, authorship, and accessibility. This approach allows for extensive examination of both theoretical understanding and actual applications in the context of Pakistan.

## 3. RESULTS

### *3.1 Mohenjo Daro by Mirbahar*

Through feeding historical information into AI models, Mirbahar has generated visualizations that provide the audience with a rich understanding of this ancient civilization. This project is the connectivity between the past and present, an upgrade of ancient locations in a modern context. The project is posted on social media, and received a fantastic response, engaged a huge number of young audience (Rehmatullah 2023). It also unlocks potential for the upcoming film makers of Pakistan to try out themes and narrates the narratives of the other, who were overlooked before (Bilal 2018). Such experimentation leading to new and innovative productions blending technology with traditional art forms (Kajla, Kansra et al. 2024). Prime Décor has distinguished itself as a trendsetter for AI-generated art in Pakistan. Through advanced AI algorithms, the company creates unique pieces of art made from scratch, ensuring every painting is original with no duplicate anywhere else in the world. The process not only depicts the future of art created through AI, but also offers art collectors original pieces of art made from the fusion of technology and imagination (Noor & Zafar, 2023).

Pakistani artist Mirbahar has utilized AI to breathe new life into the ancient Mohenjo Daro city. By supplying input data about the historical context of the city into AI models, Mirbahar has generated graphic outputs that demonstrate the everyday life and architecture of this ancient civilization. The project acts as a bridge between the present and the past, revealing to the audience a picture-perfect, three-dimensional look at history through the means of modern technology (Yaseen, 2023). This project has been able to produce images close to the photographs, and their texture has established a sense of some kind of authenticity. Photographic images have been able to reinterpret shared visual narratives based on recollections throughout history, and photography has been utilized in describing individual and collective identity, owing to trustworthiness in its nature (Bilal and Bilal 2018). This work, by Mirbahar, have turned the entire process around and now it is the myths, stories and remains of Mohenjo Daro have been utilized to construct the pictures that is utilized as a reference to remember the entire civilization, with the same type of reliability. It is commemorating the features, skins, looks, costumes, language, colour, architecture and entire life style of the old city, and have also taken an authenticity (Sajida et al., 2025).


**Figure 1: Ancient city of Mohenjo Daro by Mirbahar. Retrieved from:**
**https://www.arabnews.com/node/2282191/pakistan**

### *3.2 Folkloristan*

The Folkloristan exhibition stands as a testament to how digital art can rejuvenate cultural heritage. By combining digital artworks with curated music playlists, the exhibition offers an immersive experience that introduces visitors to Pakistan's rich folklore and traditions. This fusion of art and technology not only preserves cultural narratives but also presents them in a contemporary format that resonates with modern audiences (Yu et al., 2025). Through cutting-edge AI algorithms, the business develops original paintings that are built from scratch to ensure that no two pieces of artwork exist in the world. The method indicates the capability of technology in painting and provides collectors with one-of-a-kind paintings that combine art and technology (Basyoni, Qayyum et al. 2025).

There are many famous artists that have modified their artwork by introducing innovation such as Imran Qureshi, who has tested the combination of the old traditional miniature painting style with contemporary technology. His interactive 3D virtual galleries encourage visitors to interact with his paintings in novel ways, furthering the sense experience and the range of audience engagement. Incorporating AI into art that depicts cultural heritage needs to be done with caution to prevent misrepresentation or simplification of intricate traditions. Artists need to ensure that technology use adds value to the cultural stories being depicted (Cunha, Pereira et al. 2024). The marriage of art and AI in Pakistan is full of promise. Integrating AI and digital art into the curricula of schools can empower upcoming artists with the right expertise to navigate this multidisciplinary subject. Seminars, workshops, and collaborations among art and technology schools can breed a new crop of artists well-versed in AI applications (Mim et al., 2024).


**Figure 2: Folkloristan exhibition, Retrieved from: https:/ www.folkloristan.com**

When different steps are taken to improvise the legacy of culture and evolving it in a positive way and this can be done by collaborating with technologists, cultural projects, and artists and it can also lead to new projects. These types of collaborations can be very helpful for creating new type of artforms that belong to different disciplines and are a blend of culture and technology. The contribution of AI in art will increase with the passage of time and it will create new pathways for the growth of artists and for the engagement of audience. These types of advancements can also help different Pakistani artists to have new opportunities and they can be recognized globally by showcasing their artwork which is rich in cultural heritage and as a blend of culture with modern technology (Shabbir, 2023).

Artificial intelligence in collaboration with audible is considered as a very revolutionary way that can provide artists a very new pathway where they can express their creativity and they can engage different kind of audience with the different interactive experiences. There are many new art forms that are present in Pakistan but when an art form is connected with culture it embraces new heights and the collaboration of culture with technology will bring new possibilities that how tradition and technology can be advantages together. AV player very major part in advancements for Pakistani artist and it can open new channels for the artists to have a creative expression can have different engagement with audience (Zawish et al., 2024). Anila Quayyum Agha, a Pakistani-American artist, creates immersive light sculptures inspired by Islamic architecture and her experiences as an immigrant. Her installations, such as "Intersections," utilize intricate patterns and light to transform spaces, engaging viewers in a contemplative experience that merges art, culture, and personal narrative (Khan & Sabahat, 2024).

**Figure 3: Anila Quayyum Agha (American, b. Pakistan 1965). Intersections, 2014. Steel and halogen bulb, 78 x 78 x 78″. Courtesy of the artist and Talley Dunn Gallery, Dallas. Photograph by Stefan Jennings Batista.**

Eminent artist Rashid Rana is looking forward to the amalgamation of new technologies in his art practice, including experimenting with AI. He views the relationship between AI and art as "symbiotic," indicating a harmonious integration of technology and creativity. His openness to incorporating AI

suggests a future where traditional art forms are enriched by technological advancements (Mim et al., 2024).

**Figure 4: A closer view of 'It Lies Beyond' | 2022 | Inject Print on Vinyl + Augmented Reality | 4.7 m x 7.8 m x 42.1 m. A site-specific installation for Karachi Biennale 2022. Photo: Rashid Rana**

In December 2024, HIVE Pakistan utilized holographic technology to recreate historical figures, such as Jinnah, delivering messages on unity and national identity. This innovative use of AI and holography bridges the gap between history and modern technology, offering audiences a unique and engaging experience. These examples highlight the innovative ways in which Pakistani artists and institutions are integrating AI into their work, creating immersive experiences that blend traditional art forms with modern technology. This fusion not only preserves cultural heritage but also introduces new dimensions to artistic expression, engaging audiences in dynamic and interactive ways (Sajida et al., 2025).

### *3.3 The National History Museum; Immersive Art Experiences*

Immersive art experiences involve several senses, so that art is experienced by the audience through dynamic interactions. The National History Museum in Lahore includes cutting-edge interactive features that offer the visitor a new and unmatched museum experience in Pakistan. These features include historical images, artifacts and photographs, with digital installations and interactive displays to engage visitors in the nation's history dynamically. The museum showcases pre-independence history of the region from the East India Company era as well as post-independence history of the country till the 1960s. Using holograms, virtual reality, and audiovisual aids, it brings to life the stories of migration, settlement, and nation-building (Subaveerapandiyan et al., 2024).

NHM is a vast and multidimensional project that brings together science, education, and storytelling on an impressive scale. Among the many contributors, the role of the filmmaker stands out as particularly significant. Through the lens of cinema, the filmmaker weaves together narratives that breathe life into static exhibits, turning facts into emotions and data into stories. Their vision not only enhances the visual experience but also makes complex scientific concepts more accessible to a broader audience. By carefully curating sound, visuals, pacing, and emotion, the filmmaker transforms the museum space into a compelling journey one that resonates with viewers long after they leave. In many ways, the filmmaker acts as a bridge between the cold precision of scientific research and the warmth of human curiosity (Yu et al., 2025).

An immersive digital art show was hosted by the Italian Embassy in Pakistan to introduce this new art form to the Pakistani masses (Abbasi, Abbasi et al. 2024). It was an exhibition featuring the works of renowned Italian digital artist and video designer, Stefano Fake. The event demonstrated how digital

technologies, such as AI, can be utilized to produce artwork that is beyond the confines of conventional mediums, providing novel perspectives and experiences for the viewers (Zawish et al., 2024).

**Figure 5: Italian Embassy in Pakistan Hosts Innovative Digital Art Exhibition, Retrieved from: https://wenewsenglish.pk/italian-embassy-in-pakistan-hosts-innovative-digital-art-exhibition**

Italian Ambassador Andreas Ferrarese was proud to introduce this special exhibition of digital art to the public, emphasizing its diversity and numerous possibilities. Stefano Fake, a renowned Italian digital artist, took the audience through the history of digital art, which he started almost 30 years ago. He spoke of his shift from conventional art to digital media in 1997, leading up to the setting up of his studio in 2001 that specializes in immersive art experiences. Such efforts mark an increasing desire for immersive art experiences in Pakistan, where AI is being employed to make art more interactive and personalized. Through the combination of cutting-edge technologies, these exhibitions provide viewers with a more interactive and dynamic means of enjoying art, filling the gap between conventional artistic works and contemporary technological innovations (Subaveerapandiyan et al., 2024).

## 4. CHALLENGES AND ETHICAL CONSIDERATIONS

While AI holds great potential for artistic endeavors, it is also challenging and poses ethical issues.

- There is questioning regarding authorship and originality when AI is used in art. Where an artwork is created by an algorithm, it is difficult to determine the level of human creativity employed. This blurs the conventional understanding of what is art and who is the artist.
- Pakistan is facing different kind of infrastructural and financial problems. Because of which it is not easy to assess high technologies and to have access of AI software because of many restrictions. This also act as a major limitation because of which many artists cannot explore into AI and cannot pave their pathway towards digital media.

- The incorporation of AI in art for the representation of cultural heritage required very high quality of care that cannot be misrepresented or over generalized towards the intricate traditions. Artists need to be very careful and have to guarantee that the technology they are using can only optimize the culture and will not degenerate it

## 5. FUTURE PROSPECTS

The future horizon is such that

- In the field of art, it is very important to converge automatic reality (AR) into virtual reality (VR) in collaboration with artificial (AI) art that can create new pathways for interactive audience and artistic expressions.
- This type of intersection can create new experiences of immersive art in Pakistan and it can also combine with the many contemporary technologies which have advancements in cultural narratives.
- AI based immersive art has a very bright future in the nation that is enriched in culture and it can be shaped with the help of different developments in the future.
- The basic focus of immersive technology can be shown by the expansion and adaptability of signs and symbols. For this purpose, AI can be very helpful that can document restore and preserve different architectural Artefact.
- It can also be used to display them in different public places in many innovative and immersive ways but there are many restrictions and hurdles while incorporating with AI into art.
- There can be disagreements while concerning with the having or not having machines for creative creativity then the people that no how these things can have a proper effect on the career of artist it can also guarantee that I can continue to be a tool and it can enhance the creativity of human rather than replacing it and these issues can be resolved very easily.

## 6. CONCLUSION

A revolutionary era with limitless possibilities for creativity and expression has been brought about by the incorporation of Artificial Intelligence (AI) into the art world. Imran Qureshi is one artist who has successfully blended traditional art forms with contemporary technological advancement. An excellent illustration of how AI can improve the sensory experience and increase audience engagement is Qureshi's interactive 3D virtual museums, which make art more participatory and captivating. AI must be carefully incorporated into cultural heritage-representative art to avoid misrepresenting or oversimplifying intricate customs. Artists need to make sure that the use of technology complements rather than detracts from the cultural narratives they are portraying. This calls for a thorough understanding of the cultural landscape as well as careful analysis of the ways in which technology can be utilized to represent and maintain cultural identities. There is concern that AI will limit human creativity even though it provides tools that can facilitate creative processes. As more and more content is produced by AI, concerns are raised regarding the authenticity and uniqueness of the artwork. For art to remain authentic, the preservation of human creativity must be balanced against the integration of AI. The digital divide is an additional worry. Infrastructure and financial limitations may restrict access to cutting-edge technologies and AI software. This could result in a digital divide for artists as it limits the majority of artists who would like to experiment with AI-based art. The art world can profit from AI without compromising the integrity and depth of cultural heritage if these complexities are carefully navigated.

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