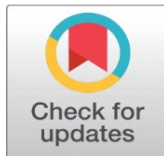
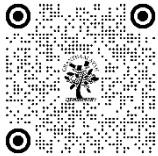


# POTENTIAL OF METAVERSE TECHNOLOGY FOR THE ARTISTS OF PERFORMING ARTS IN INDIA

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## ABSTRACT

The purpose of this study is to describe the metaverse, its benefits, and the difficulties that Indian performing arts artists encounter. Following COVID 19, metaverse technology is booming as a result of generation Z's preference for digital and contactless platforms. It focused on the technology used and the expectations, advantages, and difficulties that performing arts performers confronted with it. Additionally, the paper attempts to shed light on the many forms of technology that are employed and then attempts to discuss the global metaverse's future. The research will add to the scant body of literature in the subject of art and culture about the metaverse. Understanding the advantages and difficulties faced by performing arts professionals will be beneficial.

**Keywords:** Metaverse Technology, Art and Culture, Metaverse Characteristics, Benefits and Challenges

## 1. INTRODUCTION

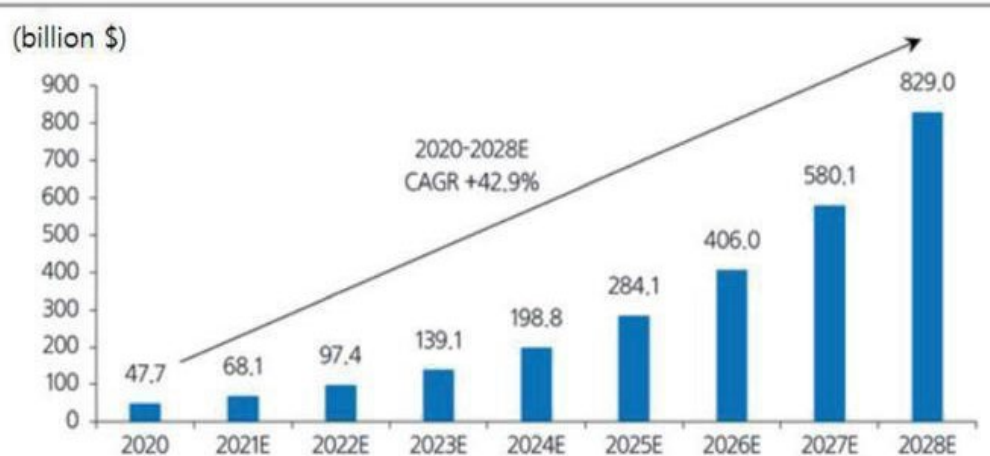
Mark Zuckerberg generated excitement around the long-awaited idea of the "metaverse" in October 2021 when he revealed that Facebook was renaming as Meta. The world is now beginning to be impacted by the metaverse, an online platform that resembles virtual reality. Some people are curious about the role those cultural institutions like libraries, arts, culture, concerts, stage performances and museums will play in this odd new world, given that businesses have already begun

to prepare and even sell virtual apparel for avatars. In fact, art and culture itself may undergo significant transformation in the metaverse.

The Internet gained popularity in the 1990s, and since then, cyberspace has continued to develop. Numerous software businesses have developed a range of virtual realms mediated by computers, such as social networks, video conferences, augmented reality apps (like Pokemon Go), virtual 3D worlds (like VR Chat), and non-fungible token games (like Upland). These virtual spaces have brought about varied level of digital transformation, even though they are not permanent and disconnected. The term "metaverse" was created to aid in the digital transformation of every aspect of our physical lives. The metaverse is based on the concept of an immersive Internet as a large, integrated, shared area.

With the advent of new technologies like Artificial Intelligence, 5G, and Extended Reality, the metaverse may represent futuristic realm, but the digital 'big bang' of our cyberspace is not far off. The first attempt at providing a thorough framework that analyses the most recent metaverse development in the context of cutting-edge technologies and metaverse ecosystems is presented in this study, which also highlights the potential for the "big bang" of digital technology and its benefits, disadvantages with future of metaverse in the performing arts.

**Figure 1**



**Figure 1** Metaverse Market Size Forecast

**Source** Emergen Research, Samsung Securities

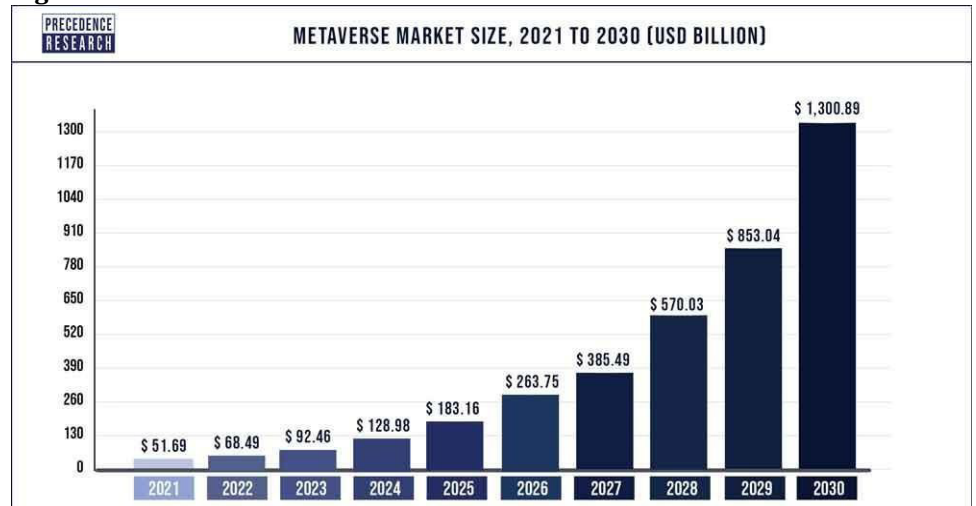
## 1.1. METAVERSE TECHNOLOGY

The metaverse is a shared virtual environment that people can move and engage with using a customized avatar in order to pursue communication and business with like-minded virtual companions. This is made possible using virtual world technology [Zyda \(2022\)](#). By 2030, the metaverse market is expected to be valued \$1.5 trillion, or 1.81% of global GDP, according to PwC Consulting (PwC). Researchers have focused on how the metaverse broadens the definition of creation, interaction, and communication in a number of domains, including marketing [Dwivedi et al. \(2023\)](#), education [Dahan et al. \(2022\)](#), and tourism [Gursoy et al. \(2022\)](#), [Hwang & Koo \(2023\)](#). The metaverse is expected to continue growing.

With the rise in convenience and advancements in the five senses—voice, motion, and vision—metaverses—including interactive techniques, 3D space, and

the web—are evolving in a complex way in terms of spatial scalabilities. [Lee et al. \(2021\)](#)

**Figure 2**



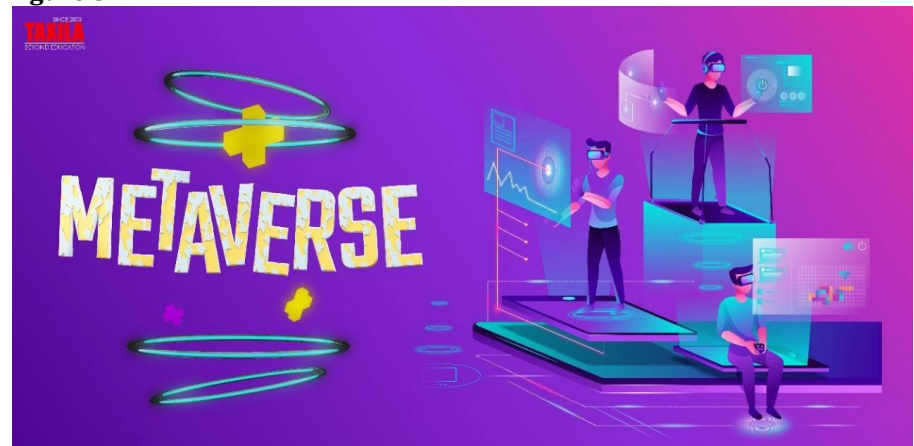
**Figure 2** Metaverse Market Size, 2021 To 2030 (USD Billion)

Source [www.precedencereearch.com](http://www.precedencereearch.com)

## 1.2. DEFINITION OF METAVERSE

A loosely defined word for three-dimensional virtual worlds where users interact through avatars is the "metaverse." The term metaverse was coined as a combination of "meta" and "universe" in the 1992 science fiction novel *Snow Crash*.

**Figure 3**



**Figure 3** Metaverse

Source <https://taxila.in/blog/metaverse-a-virtual-universe-or-something-else/>

## 1.3. METAVERSE IN INDIA AND WORLD WIDE

On India's first-ever metaverse concert, which took place on Republic Day, 73, 20 million people saw Punjabi artist Daler Mehndi perform. With his upbeat songs and trendy avatar, the singer captivated audiences all over the world. The "web3-based metaverse" has become a new home for pop surrealist artist Jenny Bhatt, who is based in Mumbai. About a year ago, she added augmented reality (AR) to her digital interactive art project called "MokshaShots."

Mehndi is the first musician from India to be added to the roster of performers who have already appeared in virtual concerts hosted by Metaverse. Ariana Grande, Marshmallow, Travis Scott, and Justin Bieber are among the other performances. Similar to how virtual and augmented reality mediates between digital and physical realities, these technologies are creating new online opportunities for pop music by connecting international musicians who wish to work together or even exchange performance recordings.

According to Gamitronics, the PartyNite platform allows users to create custom avatars for themselves in a variety of locations and themes, including an amphitheater, island, lounge, cruise ship, and more. In addition to playing to win, users can claim and mint NFTs, purchase and sell places. Digital goods known as NFTs are able to be bought, sold, or traded.

India, with its young, technologically savvy population, is poised to become the third largest economy by 2030 and is prepared for the metaverse.

**Figure 4**



Figure 4 Source <https://www.thestatesman.com/entertainment/daler-mehndi-successfully-hosts-first-metaverse-concert-on-republic-day-1503041773.html>

**Figure 5**



Figure 5 Source [https://resize.indiatvnews.com/en/resize/newbucket/1200\\_-/2022/01/daler-mehndi-1642924946.jpg](https://resize.indiatvnews.com/en/resize/newbucket/1200_-/2022/01/daler-mehndi-1642924946.jpg)

## 2. LITERATURE REVIEW

### 2.1. METAVERSE AND PERFORMING ARTS

An autonomous economic system and a consistent value system link the computer-generated environment known as "METAVERSE" to the real world. The word is a compound of the Latin word "meta," which signifies transcendence, and the suffix "verse," which means universe in short. In his science fiction book *Snow Crash*, which was released in 1992, Neal Stephenson first used the term "metaverse".

In this book, people who are physically present in the real world utilize virtual reality (VR) gear to create digital avatars that represent them in the metaverse, a parallel virtual reality. The term "metaverse" has undergone several definitions since it originally emerged, including "a second life" [Lee et al. \(2021\)](#), "3D virtual worlds" [Wang et al. \(2022\)](#), and "life-logging" [Dionisio et al. \(2013\)](#). According to [Bruun and Stentoft \(2019\)](#), the metaverse is generally believed to be a fully immersive, hyper spatiotemporal, self-sustaining virtual shared environment that blends the digital, human, and physical realms. The Metaverse, where users can live as digital natives and experience an alternate life in virtuality, is recognized as an emerging paradigm of the next generation Internet, following the Web and mobile Internet revolutions [Ning et al. \(2023\)](#).

Artists' main goal is to get the audience involved. Information and communication technologies (ICT) are being used by artists and cultural organizations more frequently as they look for new, relevant, and efficient methods to interact with viewers through art exhibitions [Vital et al. \(2023\)](#).

Though the idea of the metaverse has been around for a while, current technology advancements have made it more and more popular. In essence, the term "metaverse" describes a digital environment where people may interact, generate content, and take part in events. Examples of this type of environment include augmented reality, blockchain, and virtual reality. Science fiction books and films like [Hwang & Koo \(2023\)](#). *The Matrix*, *Ready Player One*, and *Snow Crash* helped popularize the idea of the metaverse. The Metaverse is portrayed in these plays as a three-dimensional virtual environment where individuals can reside, work, and have fun. With the rise of real-world virtual worlds such as *Second Life*, *VRChat*, and *Decentraland*, the Metaverse began to take shape.

Through these platforms, users can explore virtual worlds, make their own avatars, and communicate with other users.

The science fiction book *Snow Crash* by Neal Stephenson, released in 1992, have mentioned metaverse as an interactive 3D virtual environment featuring avatars [Zakarnah et al. \(2024\)](#). Nonetheless, the metaverse is widely acknowledged as an intersection, combination, and convergence of the actual and virtual worlds rather than as an alternative to or the opposite of reality [Smart et al. \(2007\)](#). Among the younger generation, who are trend-sensitive, this new technology is growing in popularity. Reactions to COVID-19 have sped up digital transformation and online interactions, drawing people to social metaverse and gaming platforms like *Roblox*, *Zepeto*, *Minecraft*, and *Fortnite*. Because more people are using metaverse platforms, especially the younger generation who is accustomed to using them, the market for these platforms is anticipated to grow quickly. As a result, businesses across a range of sectors have started utilizing the metaverse for a variety of objectives, including events, performances, and teaching. Numerous fields are conducting metaverse study due to the fact that the metaverse has emerged as a

significant global trend. Furthermore, with the introduction of blockchain technology, non-fungible tokens (NFTs), and several platforms, the definition of the metaverse is growing. The economy, society, and culture as a whole are being impacted by this new technology because of the growing intertwining of the metaverse with reality. Showcasing several artistic mediums in front of an audience on stage, including acting, dancing, and music, is known as performing arts. According to [Moore & Varchaver \(1999\)](#), these performances include puppet shows, musicals, concerts, circuses, and pantomimes. Because certain performances take place on what is known as a stage, performing arts are also sometimes referred to as stage arts. However, the performing arts which depend on the fundamental concepts of spatiality and presence came to a complete halt with the arrival of the COVID-19-induced non-face-to-face age. The entertainment sector has since made extensive use of the metaverse. ABBA, Travis Scott, Ariana Grande, Justin Bieber, John Legend, and other well-known vocalists have all done concerts on different metaverse platforms. The revenue from metaverse concerts has shown to be higher than that of offline concerts, and these events have been expanding to include fandom activities and performances. One aspect of the Hallyu phenomena that makes active use of the metaverse is K-pop. K-pop idol groups like Black Pink and BTS are organizing events where fans may meet the artists in the metaverse and learn about new content production and commercial models due to the difficulty of organizing offline, face-to-face events for both foreign and domestic audiences. The pure performance industry also makes use of the metaverse.

For instance, the virtual productions *Dream* (based on *A Midsummer Night's Dream* by Shakespeare; Soloski, Williams), *Finding Pandora X*, and *The Severance Theory: Welcome to Respite* have all been presented by the Royal Shakespeare Company. Through real-time audience engagement and virtual reality (VR), these performances were developed on the metaverse platform, creating a new sort of experience. A multi-connection performance that offered the audience a sensation of presence and immersion was recently presented by XR Immersive Theater. For tiny audiences, these performances were usually performed by one or two actors. As a result, performances are evolving from being narratives told to audiences to being immersive experiences. The metaverse platform is an art experience area in performing arts that improves audience comprehension and immersion through performances. Up until now, no research has been done on metaverse platforms or actual data pertaining to performing arts. In a study, it has been examined that marketing-related studies of metaverse platforms and included a case study of Nike and Roblox, the researchers determined that the virtual platform, content service, and consumer and business behavior were the most important elements for the study participants. They added that how companies use their marketing teams and communicate with one another is very important.

According to [Hwang & Koo \(2023\)](#), metaverses are places where people can engage in novel experiences and imaginative pursuits that boost their interest in and absorption in the performing arts. According to Park and Kim, in order to provide an enhanced performance experience, the metaverse performing arts need a number of additions and enhancements to the new technologies that are now in use. But even with the audience's significance Very little research has been done on whether using technologies in the metaverse can enhance the performing arts viewing experience [Hwang & Koo \(2023\)](#). The impact of the metaverse environment on the performing arts experience has not received enough attention; despite the fact that audience perception and satisfaction are heavily influenced by the performance they see. Therefore, rather than relying solely on pilot projects and test runs, planners and directors of metaverse performing arts can benefit from

empirical study identifying suitable applications. Examining the audience's overall perspective and behavior is therefore vital, as they are the beneficiaries and users in addition to the providers, producers, and performers who organize and carry out the performances.

### 3. ADVANTAGES OF METAVERSE

**Connectivity:** The degree of connectedness offered by Metaverse is among its primary advantages. Users can now interact and communicate with each other in ways that were before unimaginable. This may open doors for the formation of new friendships, groups, and even business relationships.

**Freedom of expression:** Additionally, the metaverse offers a degree of expressive freedom not present in the real world. The freedom to create and explore one's own identity can be liberating for individuals who feel constrained by the limitations of the material world.

**Economic opportunities:** For users, the metaverse can potentially open up new business prospects. Users can produce and trade virtual commodities, purchase and sell virtual real estate, and even provide virtual services like tuition or advising in virtual environments like Decentraland.

### 4. DISADVANTAGES OF METAVERSE:

**Addiction:** One possible drawback of Metaverse is its high potential for addiction. Similar to social media or video games, users have the potential to lose themselves in the virtual world and forget about their obligations in the real one.

**Inequality:** There's also a chance that the Metaverse also runs the risk of making already-existing disparities worse. Users who possess greater resources or talents, for instance, can be at an advantage over others who do not.

**Privacy and Security:** Security and privacy issues are also brought up by the metaverse. Users run the danger of being hacked or experiencing cyberattacks if they unintentionally share their personal information with third parties.

### 5. THE FUTURE OF METAVERSE

There is little question that Metaverse will keep expanding and changing in the years to come, even with these possible drawbacks. With the advancement of virtual reality and other technology, it is becoming more difficult to distinguish between the real world and the virtual one. In the future, the Metaverse may evolve into an experience that can rival the real world.

**Virtual events:** We might go from having live events to virtual ones in the future so that people can attend meetings, seminars, and concerts. This will make experiences more accessible and inclusive so that people from all over the world may take part.

**Games:** In the tech sector, games have always been the primary source of innovation, and the metaverse is no different. As the boundaries between virtual and actual reality become increasingly hazy, we might see more games in the future that allow users to build and explore their own worlds inside the metaverse.

**Social interaction:** It's possible that the Metaverse will give rise to whole new forms of communication and socialization. People can go on virtual dates, attend virtual events, and meet in virtual bars.

**E-commerce:** The Metaverse may also fundamentally alter the way we shop online. Compared to static product sites, users can interact more immersively with virtual stores and browse merchandise.

**Education:** The metaverse can be a useful teaching tool as well, giving pupils access to an engaging and dynamic learning environment. In future Students will eventually have the opportunity to conduct research in a virtual scientific lab and explore a metaverse reproduction of classical Rome.

## 6. CONCLUSION

Because of this, Metaverse holds the potential to develop entirely new technological experiences and methods of interaction. It is evident from the very beginning of this technology that the idea of a virtual reality cosmos has a promising future. Its potential uses are incredibly broad, ranging from socializing and entertainment to business and education. Potential drawbacks can be resolved as the Metaverse develops, and efforts can be made to build a secure, just, and sustainable virtual environment.

## CONFLICT OF INTERESTS

None.

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