Chapter 16
Eco-Metaverse Bridge: Transitioning Towards a Sustainable Future

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ABSTRACT

The metaverse is the contemporary catchword that has been sparked due to its potential to capture the imagination of human minds, eliciting their excitement and confusion in an almost equal manner. Metaverse is a world where people can live their imaginations as reality. It is considered as a new era of human conversations and mutual endeavors where time is measured in terms of experiences and where every pixel depicts a story, and every avatar has a tale to narrate. The metaverse being a versatile phenomenon with a wide range of benefits in education, business, medicine, and entertainment. This study seeks to explicate the meaning of the metaverse and its application. The authors contribute to the body of knowledge by exploring the green transition through the metaverse. This study also provides the advantages of ensuring the sustainability through metaverse education.

INTRODUCTION

Contemporary business environment is confronting numerous transitions due to penetration of technology (Anshima et al., 2023; Sharma et al., 2024). Covid -19 and digital advancement has led recent developments in virtual reality (VR), augmented reality (AR), and other immersive technologies transforming idea of the metaverse, a communal virtual shared area(Mystakidis, 2022; Sharma et al., 2022; Sharma et al.,2024; Bhardwaj et al., 2023).Metaverse, is a contemporary catchword that has been sparked

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due to its potential to capture the imagination of human minds, eliciting their excitement and confusion in an almost equal manner. Researches has defined metaverse in varied ways. It refers to as an online environment and a physical space where users can conduct their meetings, business and entertainment activities online just like they do in real world (Mystakidis, 2022). Metaverse can refer to a universe beyond physical reality, a distinct universe, or potential alternatives to the existing universe, describing its various aspects and transcending time and space(Dolata & Schwabe, 2023). The metaverse is not a physical place, it is a virtual world where people from across the globe can come together and interact with each other. It is defined as a series of immersive, persistent, and interconnected virtual worlds that offers their users an illusion of presence (Wang et al., 2022).

The major industrial leaders describe it according to what their companies are capable of or what their worldviews are. Metaverse as defined by the Microsoft's CEO Satya Nadella "A platform that essentially turns the whole world into an app canvas" (Ball, 2022) . It can involve the use of cloud computing and machine learning technologies. Leading companies are adopting Metaverse to improve organizational effectiveness. Microsoft, for example had a "technology stack" that aspire to achieve e a "natural fit" for the forthcoming metaverse. The stack is comprised of Windows operating system, Azure cloud computing, Microsoft Teams for communication, HoloLens for augmented reality, Xbox for gaming, LinkedIn for professionals, and 'Metaverses' from Microsoft, which included Minecraft, a space-flying first-person shooter Halo, and flight simulator, among others (Ball, 2022).

"Metaverse is a massive digital playground where individuals and brands engage in self-expression and happiness"(Ball, 2022). For example, if someone think about an internet play space where thy could play Fortnite(a game) with their buddies, watch Netflix and then take their friends for a test drive in a car that has been built just like the a real one.(Ball, 2022).The Metaverse is a Greek word consisting combination of two words "Meta means Beyond and "Verse means Universe" that mean "Beyond World"(Mystakidis, 2022). There is no universally accepted definition of the metaverse. However, as it combines two words "Meta" which means transcending and "universe," which means a new world hypothetically representing next-generation (NextG) Internet(Cheng et al., 2022). In simple words, metaverse is a post reality digital space, where physical realities can be merged with digital virtuality. Metaverse is convergence of technologies that enable multisensory experience which facilitate interactions with digital items, people and virtual environment like Virtual Reality and Augmented Reality. It provides a persistent socially immersive and networked multiuser platform. It is a network of digital spaces having teleportation capabilities for avatars (Mystakidis, 2022).

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