## Applications and Possible Challenges of Healthcare Metaverse

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*Abstract*— A Metaverse is a world in which users can virtually interact with each other. It is a mixture of both augmented reality (AR) and virtual reality (VR), where users can perform different activities that give them a feeling of the real world. Overall, the metaverse is redefining the mode of our communication. The rapid modernization of technology has transformed all industries in the market, including the healthcare sector. After the announcement of the metaverse by the CEO of META, Mark Zuckerberg, the metaverse has received got massive attention from the medical industry. Overall, the metaverse is considered a huge game changer in the medical industry in 2022 and 2023. With productive opportunities in the medical industry, metaverse technology is one of the most profitable and promising technologies. Metaverse is a modern technology that can address multiple issues in the healthcare industry, including virtual health and fitness, mental health, health access without geographical limitations, and connection with friends and family members. In this study, we summarize the use of the metaverse and its future directions in the healthcare industry. We also elaborate on the main challenges that might be faced when using metaverse technology in the future.

Keyword-AR, VR, Healthcare, Metaverse.



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