

Chapter 3

Responsible AI: Governance and Ethics in Metaverse

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ABSTRACT

Metaverse uses artificial intelligence and machine learning along with augmented reality to create immersive digital experiences where users can interact with other users and computer-generated environments. This creates new ways for people to connect, collaborate, experience digital content, and opens up exciting new possibilities. It also creates interesting questions on the responsible use of AI. This chapter will explore what mechanisms and frameworks should be evaluated for responsible AI- which allows humanity to enjoy the benefits of AI on augmented reality platforms like metaverse.

INTRODUCTION

ChatGPT from OpenAI, an artificial intelligence firm bought AI and ML to limelight in 2023, but AI/ML has been with us for some time and has led to innovations like autonomous driving, robots which can do specific specialized tasks and has also benefited industries like healthcare where AI is used for better patient diagnosis.

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At the same time the misuse of AI is also on the rise: use of deepfake technology to create false audio/video recordings for celebrities and use of AI to automate creation of malicious security threats to organizations for stealing sensitive data or for cyberterrorism.

Metaverse uses Augmented reality and machine learning to create immersive digital experiences where users can interact with other users and computer-generated environments. While this creates new ways for people to connect, collaborate, and experience digital content it also creates interesting questions on responsible use of AI. This chapter will explore what mechanisms should be evaluated for responsible AI- which allows humanity to enjoy the benefits of AI responsibly.

The Limitless Possibilities With Metaverse

Metaverse has the potential to redefine the fields of education, gaming, office experiences and health. Virtual classrooms with augmented reality can provide real class-like experiences while allowing teachers and students across the globe to connect. This can alleviate shortage of teachers and provide wider reach to economically disadvantaged students. Metaverse will redefine the gaming experience by augmenting it with virtual and augmented reality. The impact of Metaverse on health care can be transformational. Virtual medical consultations could redefine how doctors interact with patients and make healthcare more affordable. Remote Monitoring and Telemedicine will allow healthcare providers to track vital signs and provide timely interventions. Virtual metaverse environments can help facilitate remote clinical research with a diverse set of participants at a fraction of today's cost. Let us not forget the positive environmental impact that Metaverse can have on the planet. Visual and immersive interactions can drastically reduce the need for physical travel and resources. This will result in reduced carbon emission and a greener planet. These possibilities allow new economic and job opportunities in Metaverse. However, if there are no safeguards around the digital interactions it can result in unfavorable consequences such as discrimination, theft of intellectual property, misinformation and misuse of private data.

Dangers of Metaverse

As noted above Metaverse can have huge benefits to society but also brings its own set of challenges with its widespread adoption and use of customer data. Some of the dangers of metaverse include the following:

- **Data Privacy issues:** Metaverse has access to user profiles, their interactions in form of text, calls and other interactive conversations. Some metaverse

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