Abstract

AI is transforming Metaverse games with dynamic content development, realistic character behavior, and improved human interaction. AI's influence on Roblox is examined via machine learning applications in character animation, procedural content production, and multiplayer interactions. A quantitative SurveyMonkey study of 250 current Roblox players was done. Statistical study shows high relationships between AI-driven characteristics and user happiness, including Immersive Gaming Experience (r = 0.912, p < 0.001), Advanced AI Techniques (r = 0.934, p < 0.001), and Increased Human Interaction (r = 0.945, p < These findings show that AI boosts Metaverse involvement and socialization. While procedural content creation and NPC behavior modification help immersion, Advanced AI Techniques' significance is unclear. This research emphasizes the necessity to validate Metaverse game AI solutions beyond user perception empirically. To evaluate AI's function, future studies should include experimental methods and developer insights.

Keywords: Metaverse, Gaming, Artificial Intelligence (AI), Virtual Reality, Augmented Reality, Advanced AI Techniques
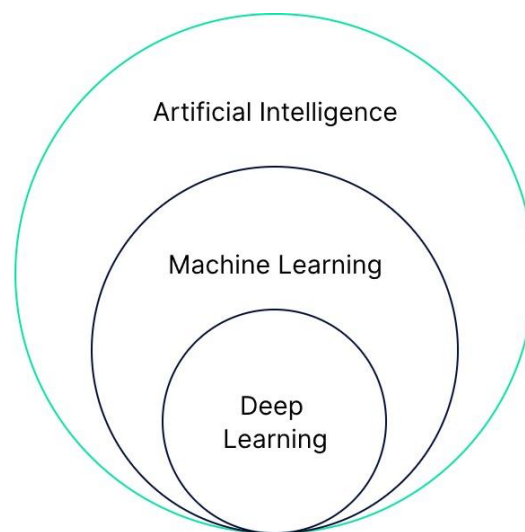
Figure 1: AI demystified (Source: Nearform)

AI ideas are divided into general AI, machine learning, and advanced AI techniques in Figure 1. The graphic shows how Advanced AI Techniques are a subset of machine learning, which is AI. This clarifies AI in Metaverse games.