Enhancing Virtual Reality for Social Anxiety Management: A Review on Generative Artificial Intelligence Approaches

Abstract

Anxiety is a growing concern for mental health professionals. Virtual Reality Exposure Therapy emerges as an efficient tool for anxiety management. We aim to present a literature review of 15 studies on the virtual reality in social therapy domain. We discuss the technical utilization of Generative Artificial Intelligence approaches in Non Playable Character development, and the limitations of this workflow. Moreover, in this study we administered the SIAS questionnaire to a subject group in a virtual reality lab (n=23) to explore the prevalence of social interaction anxiety. Our results demonstrate that mild social interaction anxiety to specific situations is present in a subject group that has a high frequency of males. We conclude that a commercial VR application aimed at social anxiety management is essential. Moreover, the effectiveness of virtual reality-based therapy is contingent on realism, and Large Language Models advancements in Generative Artificial Intelligence algorithms. The progress of Lip to Speech (LTS) conversion and image generation systems will propel Generative AI approaches.