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Conversational LLM Video Avatar Training for Healthcare Students

Abstract

Healthcare is a dynamic and difficult place for communicating. Navigating these sensitive and often challenging conversations requires proficiency in a variety of interpersonal and inter-professional interactions. Asynchronous simulation with digital humans has the capacity to enhance the extensive technical training that healthcare students receive.

A comprehensive array of simulated experiences, including digital human patients varying in age, race, ethnicity, and neurodevelopmental capacities, can provide unique opportunities for skill diversification beyond what is typically available. This research introduces an innovative method for healthcare education by incorporating Large Language Models (LLMs) to develop interactive and conversational simulations. These simulations enable healthcare students to participate in realistic conversations with patients and healthcare team members, emphasizing both clinical decision-making and the cultivation of vital communication abilities. The suggested training program, based on the LLMs approach, aims to enhance existing teaching tools by strengthening communication and interpersonal skills, complementing the clinical competencies that are vital for safe patient care. Our technique offers a more holistic training experience by simulating challenging talks, such as rejecting excessive requests from superiors or educating patients on sensitive topics. This paper investigates the integration of LLMs in healthcare students' education, analyzes their potential advantages compared to conventional techniques, and summarizes the research inquiries that guide this novel educational approach. This study adds to the expanding corpus of research on AI in healthcare education by presenting a novel approach to simulate intricate human interactions.

The ultimate goal is to enhance the quality and efficacy of healthcare training programs.