

Title: Communication Skills Training Using Virtual Agents

Host: Holly Rushmeier



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Speaker: Mohammad Rafayet Ali

Zoom Presentation

Abstract: Communication skills are essential for effective communication and healthy social life. Past research has linked poor communication skills with social isolation, depression, and anxiety. Unfortunately, more than half of the individuals with communication skills deficits such as autism spectrum disorder, do not get their required behavioral therapy due to the number of available therapists, cost, and social stigma. We present an online virtual agent that helps improve communication skills. The virtual agent is capable of having an open-ended conversation with individuals and gives both real-time and post conversation feedback on verbal and nonverbal cues. We evaluated the efficacy of the virtual agent-based intervention in three different contexts. Our first evaluation involved 48 college students with communication deficits. The second application involved 18 older adults (65+ years old) with social isolation. The third target population was oncologists who were looking for improving prognosis understanding among cancer patients. Through multiple usability and randomized control studies, we found that the participants who used the virtual agent as a communication skills trainer were more successful in demonstrating their skills in face-to-face conversations than those who used other online alternatives.

Bio: Mohammad Rafayet Ali received his Ph.D. in Computer Science from the University of Rochester in 2020. He received his M.S. degree from the same institution in 2016. He earned a B.Sc. degree in Computer Science and Engineering from Bangladesh University of Engineering and Technology in 2013. Currently, he is a post-doctoral fellow at the University of Rochester. His research topics include AI approaches to develop virtual agents for conversational skill coaching and evaluation.