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Speech Title: Educational Chatbots – Opportunities and Challenges

Abstract:

Chatbots, also referred to as conversational agents, use the technology of natural language processing to allow human-computer interaction through natural language (NLP). Chatbots are revolutionizing the way education is provided by involving students, customizing learning activities, supporting teachers, and acquiring a thorough understanding of students' behavior. Due to their low cost and ability to engage students in a tailored learning environment, the usage of educational chatbots is growing. Because it is challenging for professors to provide each student with individualized attention in online classrooms with many students, chatbot adoption is crucial. In fact, chatbots may help students learn in a classroom by, for instance, providing them with readings, homework, practice problems, and study materials right away. Additionally, chatbots can participate in one-on-one conversations with students or lead group learning exercises. However, despite the abundance of possibilities, using chatbots in education comes with several difficulties. For instance, inadequate chatbot training frustrates students and makes learning challenging. Additionally, students seem to become tired of talking to chatbots over time. The absence of user-centered design, feedback, and distractions are additional difficulties that current studies fail to address. The advantages and disadvantages that educational chatbots bring to the current educational system will be covered in this session.

**Biography:** Dr. Mohammad Amin Kuhail received a Ph.D. in software development from the IT University of Copenhagen, Denmark, and an M.Sc. degree in software engineering from the University of York, UK. He served as an Assistant Teaching Professor with the University of Missouri–Kansas City (UMKC), USA, for six years. In 2019, he joined Zayed University, serving as an Assistant Professor. Dr. Kuhail won the teaching award at UMKC in 2018 and received several research grants. Moreover, Dr. Kuhail is currently an ABET program evaluator and a reviewer at several journals and conferences, including the International Journal of Human-Computer Interaction, Computers in Education, ITICSE, IEEE Access, and MDPI Informatics. Dr. Kuhail is the founder and developer of a personal-financing system named “Organic Budget.” Dr. Kuhail is a Computer Scientist and a Software Engineer with a diverse skill set that spans web development, object-oriented programming, algorithms, and usability. His research interests include human-computer interaction, educational technology, IT education, and smart city.