

AI teachers must be effective and communicate well to be accepted, new study finds

30 October 2020



Credit: CC0 Public Domain

The increase in online education has allowed a new type of teacher to emerge—an artificial one. But just how accepting students are of an artificial instructor remains to be seen.

That's why researchers at the University of Central Florida's Nicholson School of Communication and Media are working to examine [student](#) perceptions of artificial intelligence-based teachers.

Some of their findings, published recently in the *International Journal of Human-Computer Interaction*, indicate that for students to accept an AI teaching assistant, it needs to be effective and easy to talk to.

The hope is that by understanding how students relate to AI-teachers, engineers and computer scientists can design them to easily integrate into the education experience, says Jihyun Kim, an associate professor in the school and lead author of the study.

"To use machine teachers effectively, we need to understand students' perceptions toward machine teachers, their learning experiences with them and more," Kim says. "This line of research is needed to design effective machine teachers that can actually facilitate positive [learning experiences](#)."

AI teaching assistants can help ease a teacher's workload, such as by responding to commonly asked questions by students. These questions, which often appear each semester and become numerous in online classes with hundreds of students, can become a large task for a [teacher](#). The quick delivery of answers also helps students.

An example of an AI teaching assistant is one named Jill Watson that was created by a researcher at the Georgia Institute of Technology. Jill was fed the thousands of questions and answers commonly asked in the researcher's online class that he'd taught over the years. With some additional learning and tweaks, Jill was eventually able to answer the students' commonly asked questions accurately without any human assistance as if she was one of the researcher's human teaching assistants.

For the UCF study, the researchers asked respondents to read a [news article](#) about an AI teaching assistant used in higher education, and then they surveyed the students' perceptions of the technology.

The finding that an AI-based teaching assistant that students were most likely to accept was one that was useful and was easy to communicate with points to the importance of having an effective AI-system, Kim says.

"I hope our research findings help us find an effective way to incorporate AI agents into

education," she says. "By adopting an AI agent as an assistant for a simple and repetitive task, teachers would be able to spend more time doing things such as meeting with students and developing [teaching](#) strategies that will ultimately help student learning in meaningful ways."

More information: Jihyun Kim et al, My Teacher Is a Machine: Understanding Students' Perceptions of AI Teaching Assistants in Online Education, *International Journal of Human–Computer Interaction* (2020). [DOI: 10.1080/10447318.2020.1801227](#)

Provided by University of Central Florida

APA citation: AI teachers must be effective and communicate well to be accepted, new study finds (2020, October 30) retrieved 22 September 2021 from <https://techxplore.com/news/2020-10-ai-teachers-effective.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.