

IBM's AI debating system able to compete with expert human debaters

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IBM has developed an artificial intelligence-based system designed to engage in debates with humans. In their paper published in the journal *Nature*, the team members describe their system and how well it

performed when pitted against human opponents. Chris Reed with the University of Dundee has published a News & Views piece in the same journal issue outlining the history and development of AI technology based around the types of logic used in human arguments and the new system developed by IBM.

As Reed notes, debating is a skill humans have been honing for thousands of years. It is generally considered to be a type of discussion in which one or more people attempt to persuade others that their opinion on a topic is right. In this new effort, the team at IBM has created an AI system designed to debate with humans in a live setting. It listens to moderators and opponents and responds in a female voice.

In most debates, people presenting an argument tend to cite others who can back up their claims. They may note prior research, or quote well-known phrases used by people respected in the field of argument. The IBM system, known simply as Project Debater, scans the internet for such arguments and uses them in ways that it has learned are convincing.

Most debates also generally involve the participants attempting to shoot down the arguments of their [opponent](#). To carry out such tasks, Project Debater uses Watson, the IBM system that beat contestants on the game show "Jeopardy," to listen to the arguments given by opponents and then searches for rebuttals that have been given by others to similar claims.

IBM began testing the system back in 2019, when it participated in a debate with Harish Natarajan, an expert debater. Those in attendance agreed that Project Debater did not beat Natarajan, but the same audience also agreed that it did very well. In a later test, Project Debater was asked to convince a panel of viewers that telemedicine was a good idea. Most of those on the panel found that the AI system did indeed change their stance on the topic—a possible indication that AI systems may one day soon play a role in human debates such as those that occur

on social media sites.

More information: Noam Slonim et al. An autonomous debating system, *Nature* (2021). [DOI: 10.1038/s41586-021-03215-w](https://doi.org/10.1038/s41586-021-03215-w)

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