On January 12, users on an Internet Relay Chat channel watched Brandon Vedes die. Some of them literally watched, using a webcam. Some of them talked to him online and tried to help. One of the users was a robot.

Online environments are real social worlds, where people live and die, face love and loss, and build and abide by social norms to improve their communication. And chatterbots already live in them ...

Eliza, 1964–1966

Joseph Weizenbaum creates the first chatterbot at MIT. It imitates a psychotherapist. Users, using a Teletype to talk with it, shock Weizenbaum by treating his program as if it were a human being.

Cobot, 2000–2002

Charles Isbell and others at AT&T create a bot that lives on LambdaMOO, keeps social statistics, can introduce people and start conversations, and learns to behave appropriately with reinforcement learning.

Arby, 2003–

Montfort, with Kearns, Isbell, and Penn undergrad Ben Packer, creates a bot to help with two-party bargaining situations in a MUD or MOO. In early testing, Arby helps about 100 users bargain with one another.

A user, wondering about the dosage Vedes has taken, employs Pabot as a calculator.

A user asks Pabot for the URL of Vedes’s webcam, which Pabot supplies.

A user teaches Pabot the phone number for poison control, then checks to see that Pabot has learned it.

A user, looking at Vedes’s webcam, gets his researcher pumped.

Arby is a computer program that can live in a MUD or MOO (types of all-text virtual environments) and react to conversations to help participants resolve disputes or bargain about substantive issues. Like Cobot (1), which used reinforcement learning to make its behavior more socially acceptable, Arby does so by reestablishing mathematical and computational principles — in this case, ideas from game theory about how people can bargain effectively — and allows users to consider how they can be applied to a believable world-model social world, with norms and experiences that are not always clear. Without trying to understand all the details of a particular bargaining situation or dispute, Arby asks the participants to parameterize the issues and state their positions, then Arby offers advice about who should compromise.

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