

## Imitation makes digital characters more lifelike

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Talking to a cat can be a bit of a let-down, even if it's a computerised one. For a start, most of them don't talk like cats, or even much like people. The same thing happens when you try to interact with Bugs Bunny or your favourite Mr and Mrs Whiplash. What you need is a cat you can relate to.

It's a problem common to many animated characters, known as avatars, used on cellphones and computers to visually represent people or software agents in online video games, chat rooms, classrooms and stores. This is because avatars' gestures tend to be pre-programmed, and not very lifelike.

That could soon change. Jeremy Bailenson and Nick Yee of Stanford University in California have found that viewers are more strongly influenced by avatars that mimic their own body movements. They asked 70 students to don a virtual reality headset to watch an avatar deliver a 3-minute argument about the benefits of a university ID card. The students paid more attention to avatars that copied their own head movements compared with avatars making pre-programmed movements, and found them significantly more likeable and convincing.

Using webcams and camera phones to record their owners' movements would facilitate the spread of such intelligent and persuasive avatars, say the researchers, whose findings are likely to be quickly embraced by online advertisers. Animal avatars could even be tailored to subtly blend their human and animal actions. "Humans move in a specific way. If you put that on a giraffe it would look weird," says Bailenson.

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