

Plugging In

HOW COMPUTER-TO-COMPUTER TRUMPS FACE-TO-FACE

YOU'VE HEARD IT a million times: Online interactions, devoid of nonverbal cues, are hollow shells of real conversations. But this won't be the case for long, counters Jeremy Bailenson, a Stanford researcher and coauthor of *Infinite Reality*. "I have zero doubt that in the future, mediated interactions will be more intimate than face-to-face ones," he says. "You'll have communicative abilities that dwarf the ones you have in physical space." Computer-mediated exchanges can ratchet up those aspects of conversation that make us feel engaged and connected. Here are a few ways different devices, add-ons, and software programs may someday make long-distance communication the most intimate type of talk. —Andrea Bartz

SIGHT



Eye Spy

In a normal convo, a speaker can only look one person in the eye at a time. Not so in a mediated environment (which could mean a simple video chat or a fully immersive environment—think goggles, movement-sensing suits, and a virtual "room"). A computer could cheat someone's gaze so that everyone else gets individual eye contact. "Three sons would all feel they're getting the lion's share of Dad's attention," Bailenson says.

Mirror, Mirror

Mimicked movements and expressions make the impersonated feel more connected with the impersonator. With a digital interaction, you needn't consciously copy to buoy that connection—a computer could adjust your computer stand-in for you. Bailenson's team tested the idea with "a slow moving mirror," he says: An avatar delivered a message while mimicking participants' head movements (vs. holding still); subjects found the digital speaker more persuasive, credible, trustworthy, and intelligent.

TOUCH



Seal the Deal

A device in Bailenson's lab lets people shake hands remotely; when two people grasp joy-sticks, they feel the other's shake. Fudging the output boosted feelings of closeness; when people thought they were feeling a partner's shake but actually got their own returned, they liked the partner better and were nicer in negotiations, according to a study in the *Journal of Nonverbal Behavior*.

Good Vibrations

Driving while talking on the phone is more dangerous than chatting with a passenger because car mates shut up when the road gets perilous. Joris Janssen, a Dutch researcher, wondered if phone buddies would do the same if they sensed a driver's tenseness—say, from sensors on a steering wheel. He strapped electrodes onto drivers' fingers and transmitted their arousal levels to unseen conversation partners' vests, which vibrated when the drivers' arousal increased. "It's a pilot study," says Janssen, "but the use of biosignals as communicative tools looks promising."

SOUND



Telltale Heart

Subjects who chatted in a virtual reality environment while hearing their conversation partner's heartbeat stepped back to put more space between them. "That's how we react when an exchange feels too intimate," Bailenson says. People also felt more connected to their partners afterward, and the jumps in reported intimacy were as great as the boost from looking each other in the eye. Bailenson thinks we may someday improve digital communication by adding a tactile heartbeat indicator—imagine chatting on the phone while wearing a ring that beats in rhythm with your partner's ticker.

Vocal Point

Not only do we like people who mimic our movements; we also prefer those who look and sound similar to us. In an unpublished study, Bailenson subtly morphed voices so that the speaker sounded more like the listener. "Again," he says, "we find that when it's subconscious, when I don't consciously recognize that you sound more similar to me, you become more influential."