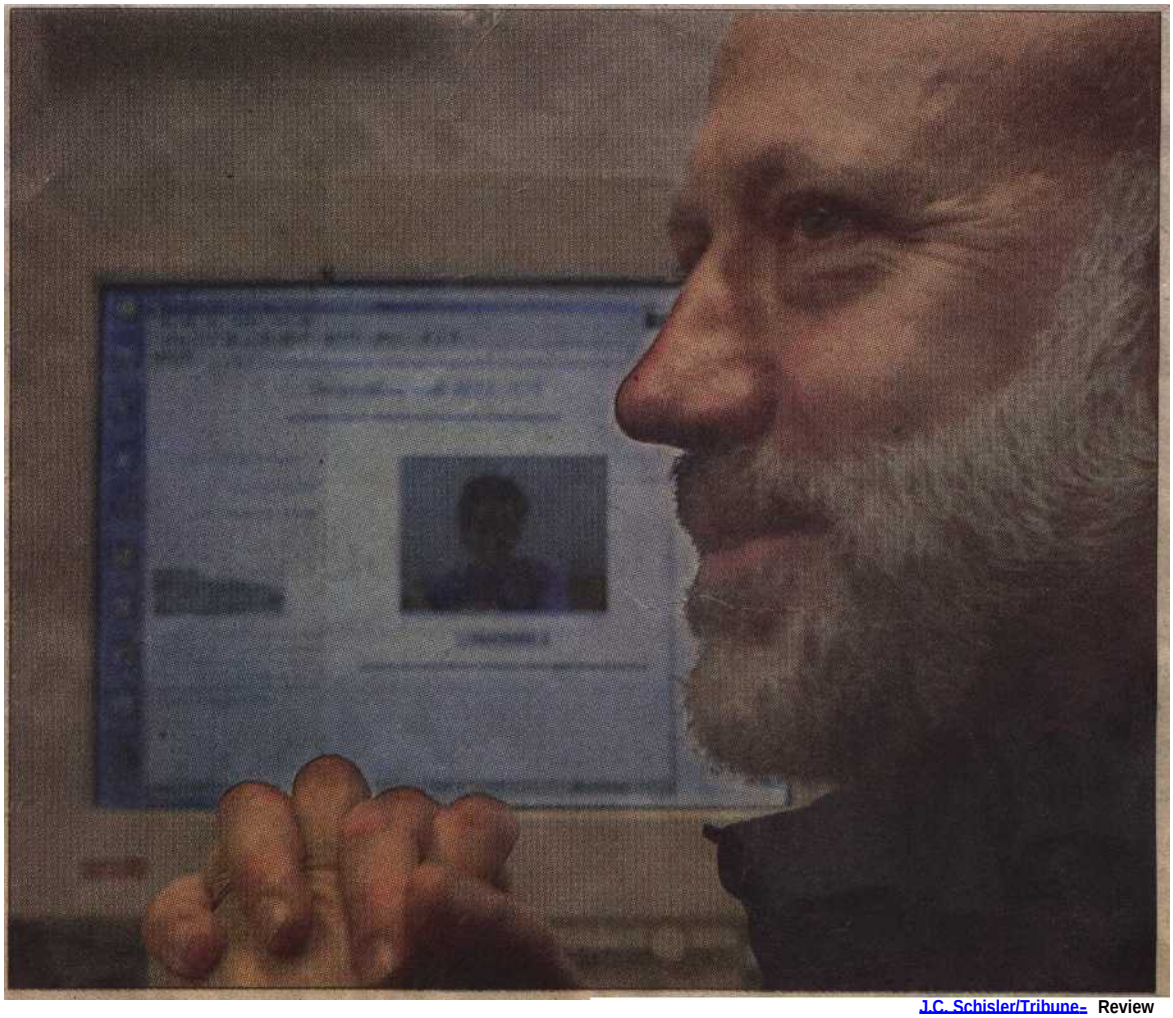

J.C. Schisler/Tribune- Review

Scott Stevens, a Carnegie Mellon University computer scientist and co-inventor of an interactive interviewing technology that integrates several important technologies developed at the school, demonstrates an intewiew with Bill Joy, cofounder and Chief scientist of Sun Microsystems Inc.

A word from Einstein

Interactive interviewing technology holds promise for many fields, co-inventor says

By Paul Beebe
TRIBUNE-REVIEW

His face floats in a cyber-universe of on-screen stars - friendly, famous, open and intelligent.

"What's with the hair?" asks Scott Stevens, a Carnegie Mellon University computer scientist.

"I get my hairstyle through negligence," the face answers.

The face is Albert Einstein, or more accurately, an actor playing Einstein. The medium is a personal computer on Stevens' desk in Newell-Simon Hall, which houses part of the university's School of Computer Science.

Stevens is conducting a "synthetic interview" with the long-dead Einstein, in which almost all of what the famous physicist ever said or wrote has been digitized and made accessible through a computer.

Ask Einstein anything, and it's likely he has an answer.

His favorite breakfast cereal? "It depends on your point of view," he demurs.

Is time travel possible? "No, because there is no past existing now. There is no future existing now. There is only the present," Einstein says.

Stevens is the co-inventor of an interactive interviewing technology that integrates several important technologies developed at CMU, including a speech recognition system, the Lycos search engine, digital information retrieval and character simulation.

`It's not exactly a book. It's a 2 1/2-hour conversation.'

– Scott Stevens
COMPUTER SCIENTIST.
CARNEGIE MELLON UNIVERSITY

The technology will be on display today at a day-long CMU symposium that explores the role of computers in society 50 years from now. It will be used to interview Bill Joy, cofounder and chief scientist of Sun Microsystems Inc.

Joy, an Internet pioneer, godfather of Unix and architect of Java, paradoxically, isn't sure humans will be able to control coming generations of computers and the machines they power.

While synthetic interviews aren't live discussions, they do feel spontaneous since questioners can ask anything in any sequence. Depending on the depth of the database, the interviewee will or won't have an answer. In the case of Einstein, the database contains a lifetime of thinking, which explains why he can answer a question about his

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Interactive interviewing technology shows promise

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famous hair.

The interview with Joy won't be as wide-ranging, since his database contains only 2 1/2 hours of questions and answers. Still, Stevens says, the audience will be entertained. Humans speak about 200 words a minute, which works out to 30,000 words in the Joy interview.

"It's not exactly a book. It's a 2.5-hour conversation," Stevens said.

The process of probing for Joy's views on computers will involve a series of largely invisible steps. Joy was interviewed in Aspen, Colo., in front of a digital videocamera. The videotape was brought to Pittsburgh and installed on a server at CMU, where it waits for today's synthetic interview to begin.

As the interview progresses, questions to Joy will be entered into a computer with a keyboard or microphone. The PC will route each question to a Lycos-like engine that searches the database for remarks that have a high probability of being meaningful responses. The best answers will be displayed to the audience visually and aurally on a computer monitor and speakers.

Stevens co-invented synthetic interviewing, along with Michael Christel, another professor of computer science at CMU. While Stevens doesn't underplay the technology, he dismisses suggestions that it may be a step toward artificial immortality.

"It's nothing at all in that direction," Stevens said. "It is a unique way of interacting with video. The goal is to have an interesting way to get at information" in the minds of thought-provoking people.

Seen from that perspective, it's only a short jump to developing commercial applications for synthetic interview technology. In fact, CMU has sold the technology to a Denver company, Westwind Media.com, which sees it as an extension of its Internet radio business.

Stevens thinks the technology has entertainment value. It may also be a potent educational tool for motivating students whose backgrounds haven't prepared them for the likes of Albert Einstein or Bill Joy. Or it could be used to sharpen a salesperson's selling skills.

To demonstrate how selling techniques can be improved, Stevens brings up the face of a woman on his monitor. He has written software that can customize her personality by manipulating her levels of happiness, skepticism, frustration and dissatisfaction, as well as her emotional state.

The woman is visiting a Mercedes car dealership in the United Kingdom, where turnover among salespeople is high and the automaker sells vehicles that attract more types of buyers than in the United States.

Stevens said the software was written for Daimler-Chrysler so that inexperienced salespeople can learn to respond better to people with different personality types and backgrounds.