

# Technology brings dead back to 'life'

If you look at a new invention out of Carnegie-Mellon University in just the right way, you can see the death of consulting as we know it.

Though that would be a long way off. All the technology can do for now is let you talk to Albert Einstein.

The technology is called synthetic interviews. It essentially turns a person into a video computer database. Then, you can ask the digital person any question and get an answer just as if that person were sitting across from you.

The main demo uses Einstein, or more precisely an actor who looks like Einstein after he's eaten nothing but Big Macs for a year and taken intensive lessons to rid himself of hit German accent. To create the digital Einstein, the actor

sat in front of a video camera and made comments that Einstein actually made during his life, on everything from relativity to his anti-marriage sentiments. In all, the actor created 500 video clips.

The clips were put into a Pentium computer and paired with software Carnegie-Mellon developed that can quickly search video just as any computer now searches text. Also included is speech-recognition technology, so the user can talk to the computer instead of typing in questions.

The result is both fast and fascinating. Anybody can walk up to the machine and say, "Yo, Al, you like baseball?" And Einstein will immediately say, as he would in real life, "I do not play games. There is no

time for it."

Scientists have been trying to do this for years. Nicholas Negroponte at the Massachusetts Institute of Technology recalls a crude version from 1974. Sculptor Jacques Lipchitz was interviewed on tape. The tape was cut into dozens of clips, each put on a separate videocassette. A member of an audience would ask a question for this pseudo-Lipchitz to answer and someone in a back room would rifle through the tapes looking for the right one, plug it in and project the (hopefully) correct answer on a screen. No computer back then could've handled it.

At Carnegie-Mellon, Scott Stevens started developing the technology in the late 1980s. Even then, mainstream computers weren't ready. But now that computers have gotten so fast so quickly, a Pentium can make the technology work.

"It's here now," Stevens says. In June, he and a couple

of others from Carnegie-Mellon started a company, Grand Illusion Studios, based on the concept. "Now we're taking a step back and saying what is a good next application."

Certainly the Einstein demo shows that the technology could be good for museums or education. There is the actor approach for those long gone. Better yet is what could be done with those still here. "It's a way to turn the dead into the living, especially if great people were to sit down with film crews in advance" of their death, says Negroponte, who is enthusiastic about the Carnegie-Mellon technology.

On other fronts, Stevens says he's been approached by "Hollywood types." They're interested in putting the star of an upcoming movie on a computer so fans could interview the star and get enticed to see the film. Another possibility is in consumer marketing, like putting a digital Michael Jordan

near a store's Nike display.

Grand Illusion has experimented by putting a neurosurgeon on a computer. He answers questions about a new procedure he developed.

If this stuff is possible now, it's only going to get better and more realistic. That could change the way a number of things are done. One example might be consulting.

Think of it this way: Consulting is like vaudeville. Back when there was no way to replicate visual entertainment, actors had to travel around doing shows in front of people. Once film and TV became mainstream technologies, live entertainment was less necessary. The best entertainers were captured by the new media and became famous. The rest increasingly scrounged for a living.

So why couldn't Carnegie-Mellon's invention someday do the same thing to live consulting gigs? The best consultants could



**Scientific database:** An actor portraying Albert Einstein responds in the scientist's words when students ask a question.

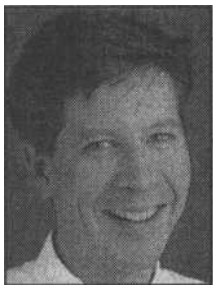
get captured in a computer and replicated anywhere. The rest would go begging.

Or maybe not. "Nah, I don't think it will replace them," Stevens says. "It could supplant them in some cases."

Besides, it's probably too hard to kill off consultants. "They'd find a way to advise

you on how to get Einstein on a CD-ROM," says James O'Shea, co-author of *Dangerous Companies: The Consulting Powerhouses and the Businesses They Save and Ruin*. "They're very inventive fellows."

Kevin Maney's e-mail is [kmaney@usatoday.com](mailto:kmaney@usatoday.com)



**Technology**  
By Kevin Maney