Meet Numack; he'll help you navigate Northwestern

Hate Clippy?

You are not alone.

The little animated paper clip that popped up on some versions of Microsoft Word annoyed many who used it.

Researchers now are using Clippy as an example of what not to do in trying to create virtual computer characters that can assist users with everything from getting directions to scheduling their day. Clippy was not realistic enough and not responsive enough to users' needs, critics said.

"Clippy is our nemesis," says Paul Tepper, a graduate student at Northwestern who is working with communications studies Professor Justine Cassell in developing an animated, computer figure named Numack.

Numack is a so-called embodied conversational agent. He's being programmed to give visitors directions around Northwestern. Researchers have studied how real people give directions, including how they might reference nearby landmarks ("Pass the library on your left") or other details ("If you reach the gym, you've gone too far").

No, they're not replacing humans

They incorporated all that into Numack, who then gives directions in a similar fashion. Using speech recognition technology, Numack can also understand questions.

This is all necessary, Cassell said, because studies show that half the population doesn't do well with map directions.

Researchers are not replacing humans with machines, she said. They are trying to give the many machines people already use more humanlike capabilities.

Steve Nowlan, director of the Speech, Language and Interaction Management Lab at Motorola, which is funding the research in part, said the figure needs to be so lifelike that it's both credible and likable. Then it could be incorporated on future gadgets.

"There is still a big difference between the way people communicate with each other and the way people communicate with devices they use," he said. "We are trying to understand how we can make a more realistic and complete communication between device and person."

Some Motorola phones in Asia have animated characters that pop up and can read a text message to someone.

Eventually, a figure like Numack could appear as a virtual personal assistant on a cell phone, hand-held computer or TV.

Dave Newbart