Computers May Ease Life's Vexations

By Tom Stein
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"Hi, honey, how was your day?" A sympathetic greeting from your spouse after a hard day at the office? Today, yes. But tomorrow, it could be from your personal computer.

At least, that's what some of the top minds in the computer industry believe. Thursday, an elite group gathered at IBM's Almaden Research Center in San Jose for the seventh annual New Paradigms for Using Computers Workshop. The event attracted such visionaries as Gordon Bell of Microsoft and Will Wright, creator of the popular Sim-City software game.

They came together to explore the outer boundaries of computer technology and find ways to give PCs a human face.

"Computers will know us better than we know ourselves and will make the best decisions for us," said Ted Selker, an IBM Fellow and the brains behind the annual conference. "It's already starting to happen."

He envisions a personal computer that knows when you're happy or sad. Or a clothing rack in a department store that understands your tastes and preferences better than you do. Or a car phone that knows not to distract you when you're weaving through traffic. Or even a steak knife that sniffs out bad meat before you eat it.

Rosalind Picard, a presenter at the conference and a professor at the Massachusetts Institute of Technology Media Lab, said we are fast approaching the age of "affective computing." Essentially, this means people will begin to interact with computers the same way they do with other humans.

These days computers that try to show signs of "intelligence" often end up being annoying. For example, a user of Microsoft Word may occasionally see random messages pop up on screen with instructions on how to better work with the software.

But something your computer cannot do is gauge your reaction to that message.

"When someone gives you advice at a bad time or when you're really busy, you may try to ignore them or glare at them to go away," said Picard. "Usually, they'll get the gist and back off." Computers do not
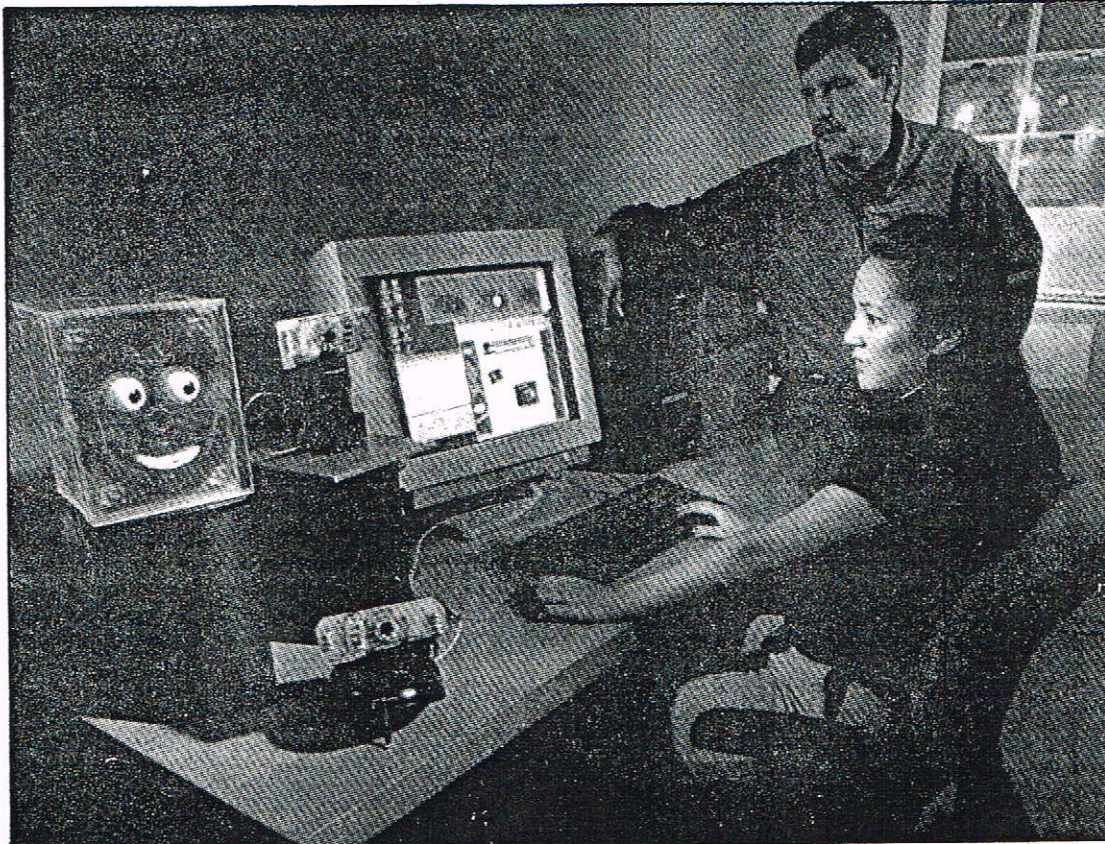
MICHAEL SEXTON / Special to The Chron

Researchers Myron Flickner and Wendy Ark test IBM's BlueEyes system, which tracks where you gaze.

have the emotional intelligence to pick up on these signals.

That's why a host of technologists including Picard strive to teach computers to recognize human feelings and react in the appropriate manner.

So how should a computer act? According to Picard, it should act like a dog.

"When you come home from work, your dog is so happy to see you," she said. "But if you're in a bad mood, your dog will somehow sense that and assume an empathetic position. Machines, too, must give the illusion of empathy and sympathy."

The scientists at IBM are weighing in with their own creations. At the workshop, IBM displayed for the first time its Emotion Mouse, which can measure heart rate and body temperature and ultimately sense whether the user is happy, sad, angry, fearful or perplexed.

Though still a prototype, the Emotion Mouse may be ready to hit the market in one or two years, according to the scientists at IBM.

As for a practical application, IBM believes the product could be ideal for people who work in call centers. "The goal of a call center manager is to take his people off the job before they go berserk," said IBM's Chris Dryer. "Emotion Mouse can sense when call-center reps are getting frustrated and can let them know they should take a break."

IBM is in the early stages of piloting another intelligent system called Simple User Interest Tracker (Suitor) that pays attention to a computer user's behavior and actions. Through a miniature camera embedded in a monitor, Suitor carefully follows the user's gaze to determine his or her interests and information needs. The tracking system is called "BlueEyes."

If you are reading an online magazine, for example, Suitor can monitor your eye gaze to determine where on the screen you are looking and then do an external Web search on its own to find additional information about that topic.

Though still in its infancy, com-
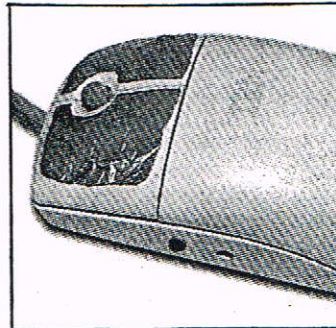
IBM's Emotion Mouse can sense whether the user is happy, sad, angry, fearful or perplexed.

puter intelligence is not science [fiction], Selker said. "The price of s[ensors] and cameras has gone [way] down," he said. "I can get th[ese] things for a couple bucks."

But the question remains: Do [we] really want our computers to th[ink] and feel and act like us? Warns [one] conference participant, "The wo[rld] is artificial enough. I fear we'll [be] drifting off even farther into a wo[rld] of fake emotions and feelings."