

# At Heart of a Cyberstudy, the Human Essence

By KATIE HAFNER

**S**HERRY TURKLE began to study the interaction of humans with computers in the late 1970's. Her first book on the topic, "The Second Self: Computers and the Human Spirit," was published in 1984.

A professor of the sociology of science at the Massachusetts Institute of Technology, Dr. Turkle is also a licensed clinical psychologist who has studied psychoanalytic theory extensively.

Dr. Turkle, 50, has made a specialty of interviewing people about their experiences with computers and the Internet. Over the years, she has amassed a wealth of observations about the effect of computers and the Internet on adults, teen-agers, children, technical novices and experts alike.

Dr. Turkle's most recent book, "Life on the Screen: Identity in the Age of the Internet," published by Simon & Schuster in 1995, was the product of years of interviews with people who spend a lot of their time on the Net, for whom reality, as one of Dr. Turkle's interview subjects put it, "is just one more window." Dr. Turkle was an early proponent of the idea, now commonly accepted, that identity on the Internet is fluid.

This interview was conducted via E-mail.

**Q.** *What was it that first got you interested in the Internet?*

**A.** For over a decade, I studied the psychology of people interacting with computers, where the focus of my work was the relationship between person and machine. In the late 1980's, I realized that the focus of my work had to shift — increasingly people were using computers to interact with other people.

There are some people who use the Net to act out. That is, they use this new medium to express the unresolved conflicts in their lives, to run the "old tapes" in unproductive ways. But there are other people who are able to use this medium to work through issues, who are able to use the Net to effect change in their lives.

**Q.** *What is it about the Net that allows people to make changes in their lives?*

**A.** When people are on line, they tend to express different aspects of themselves in different settings. A businessman might call himself Armaniboy on one mailing list and Motorcycleman on another. They begin to move fluidly among them and have an experience that encourages them to challenge traditional ways of thinking about identity. They find ways to think about a healthy self not as single and unitary, but rather as having many aspects. People come to see themselves as the sum of their distributed presence on the windows they open on their screens. And the computer serves as a metaphor for thinking about the self: the technical metaphor of cycling through computer windows has become a way to think



Chester Higgins Jr./The New York Times

about the relationships among aspects of the self.

I think that when a new technology comes on the scene, it is natural to first think about it in terms of its instrumental effects, what it can do for us. Only with some time and distance do people tend to turn to its subjective effects, what it does to us as people. I think that we are just at this point now with the computer, as people come to realize that this technology offers dramatic new possibilities for personal growth, for developing personal senses of mastery, for forming new kinds of relationships.

Walt Whitman said, "A child went forth every day and the first object he look'd upon, that object he became." We make our technologies, and our technologies shape us in turn. Behind the strong feeling about Microsoft may be a growing realization that computers change the way we think, so Microsoft is a company whose esthetic, as expressed in its operating system, is shaping our style of thought.

**Q.** *Is the variability of identity on the Net a good thing?*

**A.** In the best of cases, looking at one's life on the screen causes one to reflect on the self and on what one seems to desire, what seems to be missing, what seems to be gratifying.

Of course, in some cases, what people experience in the on-line world is disquieting or disturbing. But here again, the most constructive response is to use this experience as grist for the mill for thinking about the rest of one's life.

Some think that we have moved from a psychoanalytic to a computer culture in terms of how we think of our minds, from "Freudian slips" to information-processing errors. But the reality is more complex — to understand identity on the Internet, we



**Technology does a lot for us. A researcher wants to know what it does to us.**

would be better served by combining both perspectives.

**Q.** *You have often talked about the computer as an "object to think with" for thinking about the self. What do you mean by this?*

**A.** When I write about the computer as an "object to think with" or an "evocative object" for thinking about the self, I am pointing to the many ways in which the computer poses questions about the nature of the self. The computer is a marginal or boundary object, a mind that is not quite a mind; it does not really "think," yet it is in some sense a psychological machine. It is the existence of the computer on the boundary that causes people to reflect on what they themselves are, how they are like and not like the computer.

**Q.** *You have often said that you dislike the phrase "Internet addiction." Why?*

**A.** The term addiction is most usefully saved for experiences with substances like heroin, which are always dangerous, always bad, always something to turn away from.

The Internet offers experiences in which people discover things about themselves,

good and bad, usually complicated and hard to sort out. People grow and learn and discover new potential. People also discover preoccupations and fantasies that they may have never dealt with before and which may be very troubling. If you call the Internet addicting, then you have to call all powerful, evocative experience addicting.

I think that many of our anxieties about the Internet are a displacement of other anxieties about the power of technology in our lives. People feel that computers are getting out of control, and they fear they can do nothing about it. Then they seize on the Internet and imagine that this is a place where they can exert control. So they focus on censorship, on pornography, on filters. Similarly, people despair about the state of education and look to the Internet for a technological fix. It would be better if we faced our real fears.

**Q.** *What are you working on now?*

**A.** I'm working on ways in which the computer is beginning to impinge on our notions of bodies and what a body can be.

To take one case: at M.I.T., researchers are using computers that they wear on their bodies not only as tools or as prosthetics but in the spirit of trying to recreate themselves as cyborgs, humans enhanced by technology. Indeed, they call themselves cyborgs. I want to understand the changes in identity when people experience a much more fluid boundary between themselves and technology.

This year I have been teaching a course on the question of people's relationships with "objects" and how objects carry ideas, how objects are invested with emotion, how objects enter into cognitive and emotional development. The students in this course studied computational objects (such as the "virtual bodies" of programs like The Visi-

ble Man and Woman), on-line "tombstones" (new, highly evocative spaces for marking a death) and maps, and we contrasted these kinds of objects with their "physically embodied" analogs.

This, too, is another part of my new interest in the issue of embodiment. I am working toward a book that looks at these embodiment questions. Next year I am bringing psychoanalysts into this course, something of a break with the M.I.T. culture, but I think that this will enrich the discussion.

**Q.** *You've worked quite a bit with children. How has the Internet changed children's lives?*

**A.** Over the past 20 years, the objects of children's lives have come to include machines of even greater intelligence, toys and games and programs that make the first cybertoy seem primitive in their ambitions.

Today's children are growing up with "psychological machines," the computers that are so much a part of their lives. They have become accustomed to the idea that objects that are not alive might nonetheless have a psychology and even consciousness.

Most adults still find the idea of a machine with consciousness to be a contradiction in terms and deeply disturbing even to contemplate. I believe that today's children will grow up with very different feelings and thus be in a different frame of mind when forming relationships with computers.

They will be more likely to take the machines "at interface value," that is, to accept them as dialogue partners, even as companions of a sort.