

INTRODUCTORY NOTE: In spite of his own involvement in the development of the Internet, UC Berkeley astronomer Clifford Stoll began raising questions about the benefits of the computer revolution in his 1995 book *Silicon Valley Snake Oil: Second Thoughts on the Information Highway*. The following passage is adapted from his 1999 book *High-Tech Heretic: Reflections of a Computer Contrarian*.

ISOLATED BY THE INTERNET

Most users of the Internet speak positively about it. A friend tells another how she found a support group for an obscure medical condition. One soon-to-be-married couple writes how they met through posting to a Usenet news group. And one computer programmer confesses that although she's extremely shy in person, in her electronic chat room she becomes a feisty, enchanting contessa. Isolated hobbyists sign onto Web sites to exchange information and help each other. Most believe the electronic virtual community is a positive social development.

Well, not necessarily. According to Carnegie Mellon University psychologists Robert Kraut and Vicki Lundmark, Internet use can have serious negative long-term social effects, ranging from depression to loneliness. The result of a concerted research effort, their findings were surprising since this research was funded by high-tech firms like AT&T, Apple Computer, Lotus, Intel, and Hewlett Packard.

To learn about the social effects of the Internet, Kraut and Lundmark followed 96 families of various backgrounds for two years. They asked how using the Internet affects the connections between people. They looked at both the extent and the depth of human links, and tried to understand how the Internet affected these connections. Deep social ties are relationships with frequent contact, deep feelings of involvement, and broad context. Weak ties have superficial and easily broken bonds, infrequent contact, and narrow focus. Weak ties can link us to information and social resources outside our close local groups, but it's the strong social ties that buffer us from stress and lead to better social interactions.

Kraut and Lundmark measured stress, loneliness, and depression using standard psychological tests, and also measured each participant's social circle and distant social network during the two-year study. They found that many online relationships developed, but most represented weak social ties rather than deep ones: a woman who exchanged mittens with a stranger, a man who exchanged jokes with someone he met on a tourist web site. A few friendships blossomed—one teenager met his prom date online—but these were rarities. And even though such friendships were welcomed when they happened, there was an overall decline in real-world interaction with family and friends. After following the study group, the psychologists found an average increase in depression by about 1 percent for every hour spent online every week. Online activity resulted in increased loneliness as well. On the average, subjects began with 66 members in their nearby social circle. For every hour each week spent online, this group shrank by about 4 percent.

Kraut and Lundmark concluded that "greater use of the Internet was associated with small, but statistically significant declines in social involvement as measured by communication within the family and the size of people's local social networks, and with increases in loneliness, and depression. Other effects on the size of the distant social circle,

social support and stress did not reach standard significance levels but were consistently negative." Paradoxically, the Internet is a social technology used for communication, yet it results in declining social involvement and psychological well-being. Kraut and Lundmark's work points to a serious problem looming for wired generations: Will the proliferation of shallow, distant social ties make up for the loss of close local links? For better or worse, the only way to learn how to get along with others is to spend plenty of time interacting with people.

The notion that people can become addicted to the Internet has been scoffed at by professional psychologists. Only recently have a few psychologists asked questions about the seductive nature of the Internet and the type of person likely to become hooked. They're finding that the clinical definitions of established addictions fit the profiles of plenty of people who spend their lives online.

Psychologist Kimberly Young was among the first to investigate clinical cases of Internet addiction. She tells of a Pennsylvania college student she calls Steve who's online sixty to seventy hours a week. When Steve's not online, he's held back by low self-esteem. Shy and awkward around people, he's uncomfortable around women and believes he doesn't fit in at school. But Steve's a wizard in the Multi-User Dungeons, Internet fantasy games best known as MUDs. Young quotes Steve thus:

MUDs are like a religion to me, and I'm a god there. I'm respected by all the other MUDders ... Even when I'm not playing, I wonder if there will be more newbies for me to kill that night or which other guys will be playing. I am in control of my character and my destiny in this world. My character is a legend and I identify with him. When I'm playing the MUDs, I'm not feeling lonely or mokey. I'm not thinking about my problems ... I want to stay on the MUDs as long as I possibly can.

Where once people like Steve would have worked within the real world and slowly learned how to deal with people, today they are able to turn to the Internet for solace and escape.

ESSAY TOPIC

According to Stoll, in what ways may the Internet affect its users---and their relationships with other people? What do you think of his views? Write an essay responding to these two questions. To develop your own position, be sure to discuss specific examples; those examples can be drawn from anything you've read, as well as from your observation and experience.