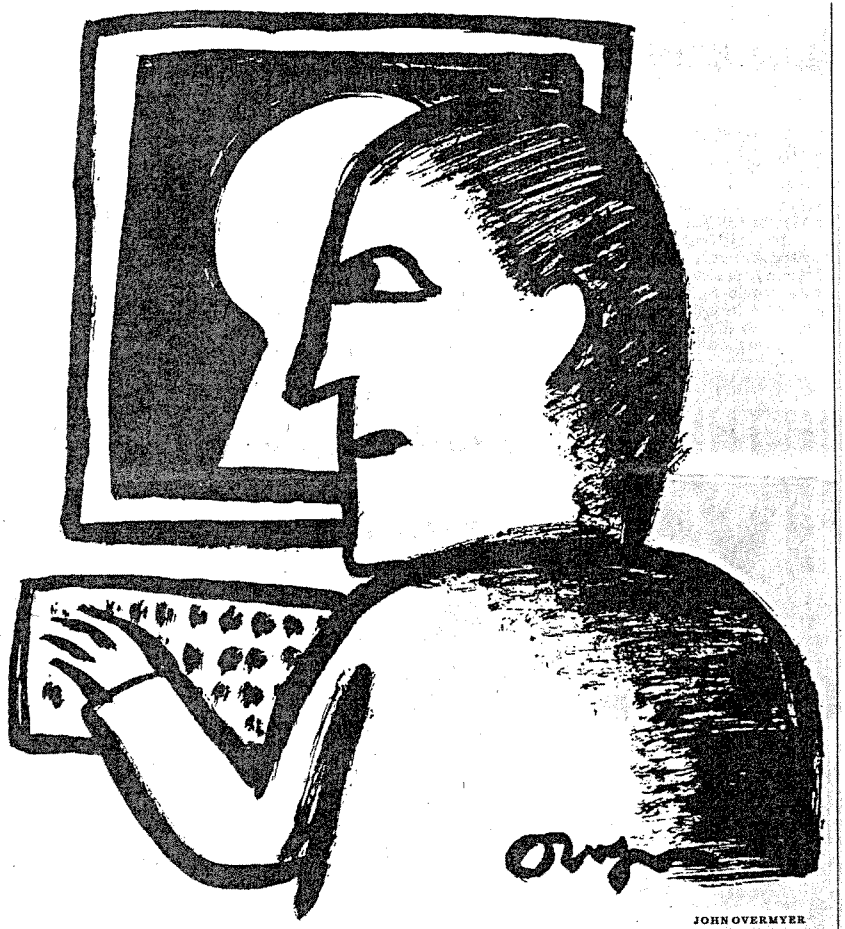

JOHN OVERMYER

Make 'cyber ethics' part of curriculum

By CHERIE A. GEIDE

ARLINGTON, Va. — Someone entered the Pentagon's computer network in 1998 in what then-Defense Secretary William S. Cohen termed "the most organized and systematic attack to date" that ultimately involved five federal agencies and at least 30 FBI agents.

Someone hacked into NASA computers by way of a Pentagon system in 1999 and downloaded $1.7 million worth of software that supported the space station's environmental systems.

Someone manipulated stock prices last year by timing false postings to bulletin boards and chat rooms. Someone else accomplished "denial-of-service" attacks on CNN, Yahoo and other popular Web sites.

All of these acts were committed by children. There is no reason to expect less of such misconduct.

An estimated 75 percent of households with 8- to 17-year-olds are online. Without a grasp of even basic ethics, children are entering a world where they can use technologies that pose moral choices beyond their reckoning.

Globally, abuse of these technologies causes harm on an unprecedented scale. *Information Week* and PricewaterhouseCoopers last year projected that viruses and hackers cost businesses around the world more than $1.5 trillion. Since criminal prosecution and new software are not, by themselves, enough to thwart such destructive ventures, we must also raise awareness among children about the consequences that virtual actions can have.

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Michael Vatis, then director of the National Infrastructure Protection Center at the FBI, said in the fall that of the nearly 1,200 cases that the FBI is investigating, "a significant portion" will have been perpetrated by kids.

The problem results in part from the nature of cyberspace: Online, you don't see the people your misconduct is harming. For children, the effects of this are exaggerated. Children online don't as readily feel how their actions are affecting people. As the Miami 16-year-old who broke into NASA and the Pentagon systems said, "It was for fun and games, and they're putting me in jail for it."

In addition, children, more than adults, are prone to a subtle but actual loss of personal awareness online, a diminished sense of the physical self. This false feeling of anonymity combines with yet another factor: Although children are still learning the difference between right and wrong at 10 or 12, children as young as 4 and 5 are using the Internet. Illustrating this gap, a recent Scholastic Inc. survey of 47,235 elementary and middle school students showed that 48 percent did not consider hacking a crime.

One way to close the gap was cited by Jean Gardella, a Florida teacher who composes stories and songs to prepare preschoolers for the brave new world they are entering. Her song, "I Am Talking With My Fingers," impresses on them that, just as there are places where they must be careful of how they talk, they must be careful what they type.

Such pioneer efforts provide a start. But to be effective, we need to make "cyber ethics" part of the curriculum for kindergarten through high school. As we connect more of our lives to the Internet, our security — personal and national — will in part derive from such instruction.

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