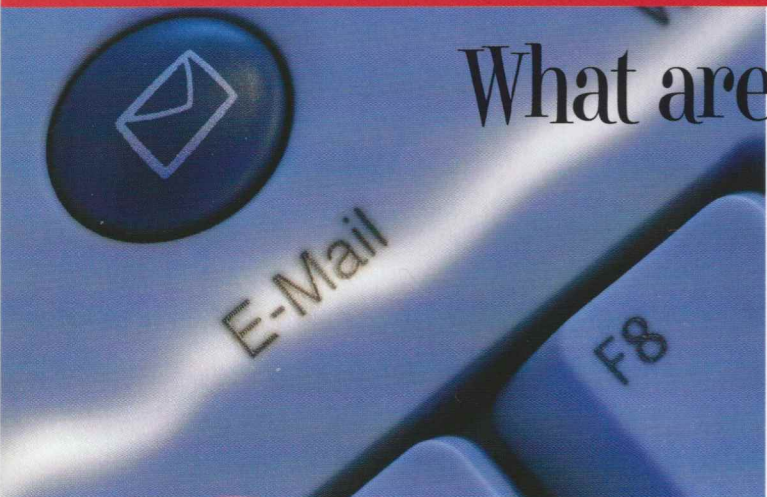# Computer Security

What are computer viruses?

Just like real viruses—which insert bits of genetic code into living cells, prompting them to manufacture yet more viruses—a computer virus is a tiny program that worms its way onto the hard drive of your computer (where all your information is stored). Once it has settled in, the computer virus sets to work making copies of itself, which causes your computer either to slow down or to begin acting strangely (you might have trouble opening a certain file, for example, or your entire computer may suddenly shut itself down).

So how does a computer virus spread itself? Unlike living viruses—which evolved naturally and are spread mostly by air or hand-to-hand contact—computer viruses are programmed by people, and require people to spread them to other computers. Usually, this is done by computer users who unwittingly send friends e-mails with innocuous-looking attachments, or by more malicious people who deliberately post virus-riddled files on Web sites.

Why is it called a Trojan Horse?

A variant on the standard computer virus, a Trojan Horse is a virus that pretends to be a legitimate program—for instance, the virus may present itself on a Web site as a computer game, but when the user installs it, it unveils its true nature and takes over his computer. The reason it's called a Trojan Horse is after the tale from Homer's *Aeneid* in which Greek warriors build and hide inside a giant wooden horse, present it as a gift to the people of Troy, and then sneak out in the middle of the night and conquer the city!

What is a firewall?

Mostly used by companies trying to protect the information on their employees' computers, a firewall is a program that monitors the boundary between different "zones of trust"—the employees within the company belong to one (trustworthy) zone, and the rest of the Internet-using world belongs to the other (untrustworthy) zone. A firewall allows communication within the company to go on unhindered, but rebuffs anyone from outside who tries to hack into the company's network.