

Computer viruses (covers skill standard 1.4.2, 2.2.5)

How to minimise the risk of computer viruses

Everyone with a computer has heard of computer viruses, but not everyone knows exactly what they are or how viruses can affect their computer. A virus is a small, self-replicating (able to reproduce itself) program that gets onto your system through an e-mail attachment, download, or website. People create viruses for various reasons, ranging from jokes to malicious destruction.

As a result, the effects of a virus can vary from being annoying to absolutely crippling to a company.

Some viruses can destroy data or even erase an entire hard drive.

Viruses can be harmful, but it's also important to understand the role you play in propagating them. Viruses generally do not invade a computer without some user action. In other words, you set the virus loose on your own computer by opening infected programs or files. If you take certain precautions, such as not opening email attachments from unknown sources and running antivirus software, you can minimize the risk of infecting your own computer.

Types of Viruses

Program viruses attach themselves to executable files such as .exe files. Each time you run the program, the virus duplicates itself and attaches to other programs. Sharing programs with other computers, either by disk or on a network, spreads these types of viruses. You are also at risk for this type of virus when you download applications from the internet.

Macro viruses are contained in the macro commands for programs such as Microsoft Word and Excel. They attach themselves to files (as opposed to programs) and are some of the hardest viruses to detect.

Boot sector viruses infect particular files on your hard drive that execute when you boot your computer. When you boot from the infected disk, the boot sector virus attaches itself to the boot files on your hard drive.

Trojan horses aren't viruses by definition because they don't replicate themselves. They do, however, possess the same potential to damage your hard drive if they go undetected. They typically arrive in an e-mail with a vague subject line or a promise of entertainment. When let loose, the Trojan horse – much like its namesake in Greek mythology – introduces a slew of unwanted attackers that can wreak havoc on your hard drive.

Exercise

1 Give two ways of trying to prevent your computer being infected by a virus.

- i)
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- ii)
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2 Name three types of computer virus.

Name

i)

ii)

iii)

3 Use the internet to research computer viruses. Find out what they are capable of doing to your computer.