

Computer Uses

Computers are an essential part of the modern world. We use computers for everything from managing a successful business to watching our favorite TV shows. Scientists use computers to run simulation tests on astronauts, and teachers use computers to find resources to make engaging lessons for students. Understanding how computers are used, helps computer engineers design the next innovation in software and make computers more useful.

Computers are highly useful technologies because they can collect, organize and evaluate information. When a computer collects information, it connects to the Internet for web data and is then able to input user data into documents and worksheets. When a computer organizes information, it does so by having file types and different information collected by users and internally groups files by dates, type, keyword tags and more. Computers evaluate information by analyzing user data and shared data between computers and provides feedback to evaluate user usage and experience.

While the average user sees their computer daily, they may go their entire life without seeing the behind the scenes processes which make Internet connection possible. The Internet works through a network of servers which store mass amounts of information in addition to connecting computer users' access to the websites they hold. Servers are typically housed in large rooms inside of maintenance facilities. Because servers work with heavy Internet traffic, they tend to easily overheat, due to this, servers are stored in cool environments.

Computers have opened the market for businesses to expand through e-commerce. E-commerce allows people and businesses to buy and sell goods and services on the Internet. The traditional brick and mortar business have drastically changed in the computer age. As many businesses open strictly online, traditional retailers and even universities have adopted a “click and mortar” approach, in which they have a website which allows users to either visit the virtual store or campus, instead of making a trip in person. This allows businesses to be competitive with prices on the Internet, while still maintaining face to face resources. The government also uses e-commerce to trade with other countries and increase economic wealth for everyone.

Computers must meet different types of needs. Creating accessible technologies is a major role for system engineers. Aiming to make computers accessible for all has led to the invention of screen readers and voice recorders. Technology such as VRS or video relay service allows people with hearing impairments to communicate through the phone by using sign language instead of typed text. Devices such as the Amazon® Echo® and Apple® Siri® are common examples of voice assistants which utilize voice recognition technology. As computer usage continues to increase making technology accessible to all will be paramount.

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Troubleshooting Tips

Troubleshooting or solving problems is a common occurrence when utilizing computers. When processes are failing or malfunctioning, troubleshooting the errors can return the functionality of a device or software. Someone may need to troubleshoot on their computer when they are receiving error messages, adding new hardware or software or struggling to connect to a wireless network or printer.

Closing out open files or programs and shutting down a computer is a commonly recommended first step when a computer is not functioning properly. A frozen computer struggling to shut down can be shut down through other methods like holding down the manual power button until the computer restarts. Depending on one's issue, they can also troubleshoot by verifying their internet connection, creating space on the hard drive or disabling programs and services which automatically start.

Computers may be malfunctioning due to internet connection, a virus or system failure. If a user is having internet issues, they can restart the internet source such as a router or modem or disconnect and reconnect by resetting their internet network settings among other solutions. For viruses, users can run a safe virus scan to assess their computer. A good computer practice is to install and maintain antivirus software to combat against any attacks. Other common solutions to computer problems include updating software and reinstalling the operating system. Conducting regular maintenance work can help prevent a system failure.

Another common problem computer users encounter is losing or accidentally deleting files and trying to recover them. Being mindful of this potential problem, there are a few ways one can recover or prevent losing files. Using an external hard drive, restoring from a backup or restoring from a previous version are all ways to protect files.

Troubleshooting can be an extensive process depending on the computer's issues. Utilizing basic practices can prevent issues or resolve problems. If one is unable to troubleshoot their computer issues, they should seek assistance from a reliable and qualified source.