Why Is Computer Literacy Vital in Today’s World?

Computer literacy, or digital literacy, involves having current knowledge and understanding of computers and their uses. The requirements that determine computer literacy change as technology changes. As computers become more a part of everyday life, many people believe that computer literacy is vital to success.

What Is a Computer, and What Is the Relationship between Data and Information?

A computer is an electronic device, operating under the control of instructions stored in its own memory, that can accept data, process the data according to specified rules, produce results, and stores the results for future use. Data is a collection of unprocessed items, which can include text, numbers, images, audio, and video. Information conveys meaning and is useful to people.

List and Describe the Five Components of a Computer.

The electric, electronic, and mechanical components of a computer, or hardware, include input devices, output devices, a system unit, storage devices, and communications devices. An input device allows you to enter data or instructions into a computer. An output device conveys information to one or more people. The system unit is a case that contains the electronic components of a computer that are used to process data. A storage device records and/or retrieves items to and from storage media. A communications device enables a computer to send and receive data, instructions, and information to and from one or more computers.

What Are the Advantages and Disadvantages That Users Experience When Working with Computers?

A user is anyone who communicates with a computer or utilizes the information it generates. Computers have the advantages of speed, reliability, consistency, storage, and communications. They perform operations at incredibly fast speeds, are dependable and reliable, consistently generate error-free results, can store enormous amounts of data, and can share processing with other computers. Disadvantages of computers relate to health risks, the violation of privacy, public safety, the impact on the labor force, and the impact on the environment.

What Is a Network, and What Are Its Benefits?

A network is a collection of computers and devices connected together, often wirelessly, via communications devices and transmission media. Networks allow computers to share resources, such as hardware, software, data, and information. Sharing resources saves time and money. The world’s largest computer network is the Internet.

How Are the Internet and World Wide Web Used?

The Internet is a worldwide collection of networks that connects millions of businesses, government agencies, educational institutions, and individuals. People use the Internet to communicate with and meet other people; conduct research and access information and news; shop for goods and services; bank and invest; participate in online training; engage in entertaining activities; download music and videos; share information, photos, and videos; and access and interact with Web applications. The Web, short for World Wide Web, is a global library of documents containing information that is available to anyone connected to the Internet.

How Is System Software Different from Application Software?

Software, also called a program, is a series of related instructions, organized for a common purpose, that tells the computer what actions to perform and how to perform them. System software consists of the programs that control or maintain the operations of a computer and its devices. Two types of system software are the operating system, which coordinates activities among computer hardware devices, and utility programs, which perform maintenance-type tasks usually related to managing a computer, its devices, or its programs. Application software consists of programs designed to make users more productive and/or assists them with personal tasks. Popular application software includes Web browsers, word processing software, spreadsheet software, database software, and presentation software.
Chapter 1 – Introduction to Computers - Review

What Are the Differences Among the Types, Sizes, and Functions in the Following Categories: Personal Computers (Desktop), Mobile Computers and Mobile Devices, Game Consoles, Servers, Mainframes, Supercomputers, and Embedded Computers?

Industry experts typically classify computers in seven categories: personal computers (desktop), mobile computers and mobile devices, game consoles, servers, mainframes, supercomputers, and embedded computers. A personal computer is a computer that can perform all of its input, processing, output, and storage activities by itself. A mobile computer is a personal computer you can carry from place to place, and a mobile device is a computing device small enough to hold in your hand. A game console is a mobile computing device designed for single-player or multiplayer video games. A server controls access to the hardware, software, and other resources on a network and provides a centralized storage area for programs, data, and information. A mainframe is a large, expensive, powerful computer that can handle hundreds or thousands of connected users simultaneously and can store tremendous amounts of data, instructions, and information. A supercomputer is the fastest, most powerful, and most expensive computer and is used for applications requiring complex, sophisticated mathematical calculations. An embedded computer is a special-purpose computer that functions as a component in a larger product.

What Is the Role of Each Element in an Information System?

An information system combines hardware, software, data, people, and procedures to produce timely and useful information. People in an information technology (IT) department develop procedures for processing data. Following these procedures, people use hardware and software to enter the data into a computer. Software processes the data and directs the computer hardware to store changes on storage media and produce information in a desired form.

How Do the Various Types of Computer Users Interact with Computers?

Computer users can be separated into five categories: home user, small office/home office user, mobile user, power user, and enterprise user. A home user is a family member who uses a computer for a variety of reasons, such as budgeting and personal financial management, Web access, communications, and entertainment. A small office/home office (SOHO) includes any company with fewer than 50 employees, as well as the self-employed individual who works from home. SOHO users access the Internet to look up information and use basic business software and sometimes industry-specific software. Mobile users are employees and students who work on a computer while away from a main office, home office, or school. A power user uses a workstation or other powerful computer to work with industry-specific software. Power users exist in all types of businesses. An enterprise user works in or interacts with a company with many employees and uses a computer and computer network that processes high volumes of transactions in a single day.


In education, students use computers and software to assist with learning or take distance learning classes. In finance, people use computers for online banking and online investing. Government offices have Web sites to provide citizens with up-to-date information, and government employees use computers as part of their daily routines. In health care, computers are used to maintain patient records, monitor patients, deliver medication to nurse stations via robots, assist with medical tests and research, correspond with patients, file insurance claims, provide greater precision during operations, and as implants. All branches of science use computers to assist with collecting, analyzing, and modeling data and to communicate with colleagues around the world. Publishers use computers to assist in designing pages and make the content of their works available online. Many vehicles use some type of online navigation system to help people travel more quickly and safely. Manufacturers use computer-aided manufacturing (CAM) to assist with manufacturing processes.