

Towards an IT Based Society

Computers have moved into every corner of our daily lives. They are all around us. You use computers in everyday life, at the supermarket, at the bank and even when you answer your mobile phone. You know more about computers than you think you do. The beginnings of computer literacy are already noticeable.

The remarkable thing about the computer industry is that, so much has happened in so short a time. We have got ahead of four generations of technology in about 56 years. The first three computer 'generations' are fixed to three technological developments: the vacuum tube, the transistors, and the integrated circuit. Each has drastically changed the nature of computers.

Through the 1970s computers gained dramatically in speed, reliability, and storage capacity. Entry into the fourth generation was evolutionary rather than revolutionary. The fourth generation was, in fact, an extension of third generation technology. Announcing first personal computer 1981, IBM PC became the industry standard machine. The IBM machine included innovations, such as an 80-character-screen line, a full uppercase and lowercase keyboard, and the possibility of adding external peripherals and internal components such as memory.

As we evolve from an industrial society to an information society, our jobs are changing from physical to mental labor. Just as people moved physically from farms to factories in the industrial age, today, people are shifting from muscle power to brainpower in a new, computer-based Society.

Computers have moved into every corner of our daily lives. Whether or not you personally know anything about it, you use computers, when you make a bank withdrawal, when you buy groceries at the supermarket, and even when you answer your mobile phone. In the homes, people use computer technology for writing letters, keeping track of bank accounts, communicating

with friends, accessing knowledge, purchasing goods and for entertainment. Without knowing about computers, it will not be easy to get through the rest of your life in the new millenium

Every computer has three fundamental characteristics that make it useful. The three fundamental characteristics are, speed, reliability and storage. Computers provided the processing **speed** essential to our society. The quick service that we have come to expect for bank withdrawals, hospital bills, telephone calls, and travel reservations, to name just a few, is made possible by computers. Business depends on the speedy processing that computers provide for everything from balancing ledgers to designing products. Computers are extremely **reliable**. Of course you might not think so from some of the stories you may have heard about computer errors. However, most errors supposedly made by computers are really human errors. Computer systems can **store** tremendous amount of data which can be located and retrieved efficiently. The capability to store volumes of data is especially important in an information society. These three characteristics, speed, reliability and storage capability, have the following by products.

When computers move into business offices, managers expect increased **productivity** as workers learn to use computers to do their jobs better and faster. Furthermore, jobs such as punching holes in metal or monitoring water levels can be more efficiently controlled by computers. To make decisions, managers need to take into account financial, geographical, and logistical factors. The computer helps decision makers

sort things out and make better choices. Because it improves productivity and aids decision-making, the computer helps us hold down the cost of labour, energy wastage, and paper work. As a result, computers help reduce the costs of goods and services in our economy.

Next, we look at some of the ways in which we use computers to make the workday more productive and our personal lives more rewarding. Most schools in the present society have computers available for use in the classroom, and some schools in developed countries require students to bring their own. Many educators prefer learning by 'doing'; rather than teaching in classroom, which is uniquely suited to the use of computers in education. Business people make bar graphs and pie charts to convey information in a graphical form, which has a deeper impact than using numbers alone. Architects use computer-generated graphics to experiment with possible exteriors and to give clients a visual walkthrough of proposed buildings. A new kind of artist has emerged, one who uses computers to express his or her own creativity.

Product from vegetables to magazines are packaged with barcodes that can be read by computer scanners at supermarket checkouts to determine the prices, while managing the inventory.

Computers operate behind the scenes too. Energy companies use computers to locate oil, coal, natural gas, and uranium. Electric companies use computers to monitor to record the amount of energy used each month in homes and businesses. Recent innovations in computerized law enforcement include national finger print files, a national file on the mode of operation of serial killers and the computer modeling of DNA. Which can be used to match traces of hair, blood, or other evidence found at a crime scene to a suspect.

Computers speed up record keeping and allow banks to offer same-day services and even allow do-it-yourself banking over the phone and internet. Computers have

helped to increase the cashless economy, enabling the widespread use of credit cards and instant credit checks by banks and retailers. Among other tasks, the government and other organizations use computers to forecast weather, manage vehicle parks, process immigrations, and collect taxes. People have computers in their homes, often justifying them as educational tools for their children. Personal computers are being used at home to keep records, write letters, through the internet.

Computers have paved the way for robots to take over many of the jobs that are too unpleasant or too dangerous for humans, such as opening packages that are believed to contain bombs. Robots are best known for their work in factories.

One of the most popular uses of computers today is communicating with other people who have computers. Computers give people the option of working at their homes without going to offices. An individual with a personal computer at home, can hook it up to a phone line or a cable and communicate with the computer at the office, to access data stored in another computer at a another location, or to send messages to colleagues. The most likely way for such a user to connect to another is via the Internet. A user needs software called a browser to access Web sites and other parts of the Internet. Many people, especially those associated with universities and government or organizations, have free access to the Internet.

Computers are all around us. You have interacted with computers in your everyday life, at the supermarket, your schools, in the library, and more. You know more about computers than you do. The beginnings of computer literacy are already noticeable.

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