# The information society

Where will you be and what will you be doing in year 2020? This is a tough question even for technology experts who are reluctant to speculate more than a few months into the future. Things are changing too quickly. A continuous stream of exciting new innovations in **information technology** (**IT**) continues to change what we do and how we think. We use the term *IT* to refer to the integration of computing technology and information processing.

Most of us are doing what we can to adopt to this new **information society** where **knowledge workers** channel their energies to provide a cornucopia of computer-based information services. A knowledge worker's job function revolves around the use, manipulation, and dissemination of information. Your knowledge of computers will help you cope with and understand today's technology so you can take your place in the information society, both at workplace and during your leisure time.

**Information Technology Competency**

Not too long ago, people who pursued careers in almost any facet of business, education, or government were content to leave computers to computer professionals. Today these people are knowledge workers. in less than a generation, **information technology competency (IT competency)** has emerged in virtually any career from *nice-to-have skill* to a *job-critical skill*.

If you're afraid of computers, information technology competency is a sure cure. IT competency will allow you to be an active and effective participant in emerging information society.

**The Technology Revolution**

In an information society, the focus of commerce become the generation and distribution of information. A technological revolution is changing our way of life: the way we live, work, and play. The cornerstone of this revolution, the *computer*, is transforming the way we communicate, do business and learn.

**Personal Computer,** or **PCs**, offer a vast array of *enabling technologies*. Enabling technologies help us do things. For example, PCs have maps that pinpoint your location to help you navigate the streets of world. They have presentation tools that help you make your point when you get there. Already, you need go no farther than your home computer to get the best deal on a new car, order to theater, play chess with a grand master in Russia, or listen to a radio station in New Zealand.

**Foundation for our information society**

**Data** (the plural of datum) are just raw facts. Data are all around us. every day we generate on enormous amount of data. **Information** is data that have been collected and processed into a meaningful form. Simply, information is the meaning we give to accumulated facts (data). Information as we now know it, though, is a relativity new concept. Just 50 short years ago, *information* was the telephone operator who provided directory assistance. Around 1950, people began to view information as something that could be collected, sorted, summarized, exchanged and processed. But only during the last decade have computers allowed us to begin tapping the potential of information.

Computers are very good at digesting data and producing information. For example, when you run short of cash and stop at an automatic teller machine, all data you enter, including that on magnetic stripe of your bankcard, are processed immediately by the bank's computer system. A computer system eventually manipulates your *data*

to produce *information*. The information could be an invoice from mail-order house or bank statement.

Traditionally, we have thought of data in terms of numbers (account balance) and letters (customer name), but recent advance in information technology have opened the door to data in other formats, such as visual images. For example, dermatologists (physicians who specialized in skin disorders) use digital cameras to take close-up pictures of patient's skin conditions. Each patient's **record** (information about the patient) on the computer-based **master file** (all patient records) is then updated to include the digital image. during each visit, the dermatologist recalls the patient record, which includes color images of the skin during previous visits. Data can also be found in the form of sound. For example, data collected during noise-level testing of automobiles include digitized versions of the actual sounds heard within the car.

The relationship of data to a computer system is much like the relationship of gasoline to an automobile. data provide the fuel for a computer system. Your car won't get you anywhere without gas, and your computer won't produce any information without data.