

The background of the cover is a close-up, angled view of a green printed circuit board (PCB). It features a complex network of black conductive traces and numerous circular solder pads, some of which are populated with small components. The lighting creates a sense of depth and highlights the texture of the board.

**Oxford English for**

# **Information Technology**

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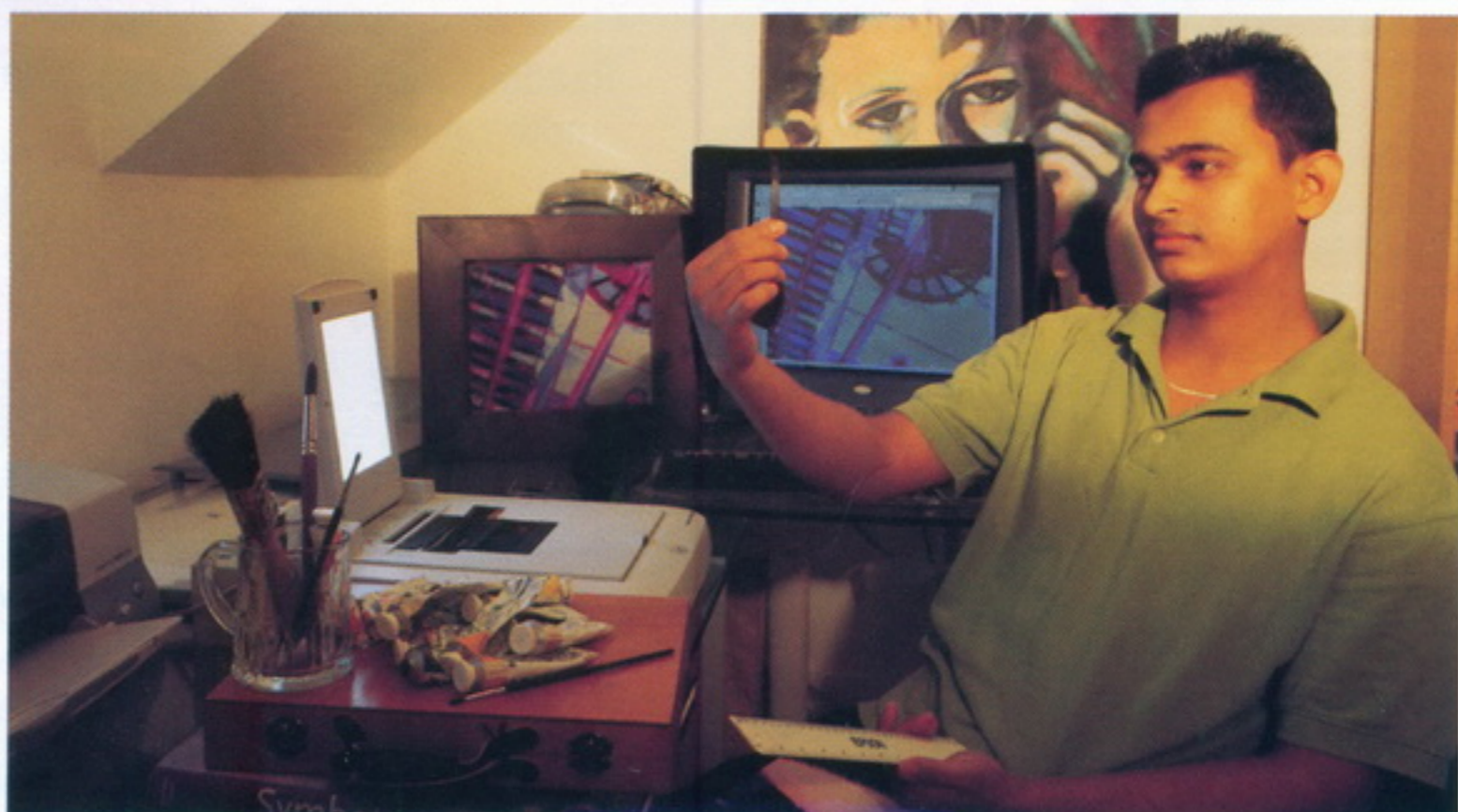
# Computer Users

**STARTER**

**1** Work in groups. Share information on how you use computers in your free time. Compare answers with other groups and make a list of uses for your class.

**LISTENING**

**2**  You are going to hear four people talk about how they use computers. Before you listen, try to predict the uses they describe.



User	Possible use
primary school teacher	
Open University student	
girl (Louise), aged 6	
artist	

**3**  Now listen to the recordings and note the actual uses described.

User	Actual use
primary school teacher	
Open University student	
girl (Louise), aged 6	
artist	

**4**  Now listen to the recordings again to find the answers to these questions:

- 1 How does the story-telling program encourage children to work together?
- 2 In what way is the children's reaction to this program different from other uses they make of computers?
- 3 What is the OU student studying?
- 4 What opportunity has she to meet other students?
- 5 What can you do with Pets 3?
- 6 What does Louise do with clipart?
- 7 How did the artist display work to dealers in the past?
- 8 What is the difficulty in selling through a website?

## LANGUAGE WORK

### Revision: Past simple and Present perfect

Study these examples of the Present perfect from the recording of the artist.

- 1 *I've scanned* in about a third of these photographs.
- 2 *I've organised* the paintings into themes.
- 3 *I've added* a sound track.

Why doesn't the speaker use the Past simple?

- 4 *I scanned* in about a third of these photographs.
- 5 *I organised* the paintings into themes.
- 6 *I added* a sound track.

We use the Present perfect to describe past actions with present relevance. The artist uses the Present perfect because he is describing a CD he has just made and what he is going to do with it in the near future.

We use the Past simple to describe completed actions in the past. It is often used with time expressions such as *last year*, *before PCs were introduced*, *in 1998*. Note these examples from the recording:

- 7 I made one for Mary's birthday *last week*.
- 8 We tried it out *last term*.

**5** The artist is being interviewed. Make questions to match his answers. Use the correct form of the Past simple or Present perfect, whichever is correct. For example:

Question: What *did you do yesterday*?

Answer: Worked on the computer.

- 1 Q What ...  
A Worked on a CD of my paintings.
- 2 Q How many ...  
A About a third.
- 3 Q What ...  
A I destroyed them.
- 4 Q How ...  
A I scanned them in.
- 5 Q How ...  
A I've organised them into themes.
- 6 Q Have ...  
A Yes, I've added a sound track.
- 7 Q How long ...  
A It's taken me about a week.
- 8 Q When ...  
A I started about ten years ago.
- 9 Q What ...  
A Before I had a computer, I had to use slides.
- 10 Q Have ...  
A Yes, I've sold a few.

**6** Put the tenses in this dialogue in the correct form: Past simple or Present perfect.

- 1 A What (do) today?
- 2 B I (work) on my project. I (search) the Web for sites on digital cameras.
- 3 A (find) any good ones?
- 4 B I (find) several company sites – Sony, Canon, ... but I (want) one which (compare) all the models.
- 5 A Which search engine (use)?
- 6 B Dogpile mostly. (ever use) it?

- 7 A Yes, I (try) it but I (have) more luck with Ask Jeeves. Why don't you try it?
- 8 B I (have) enough for one night. I (spend) hours on that project.
- 9 A I (not start) on mine yet.
- 10 B Yeh? I bet you (do) it all.

**PROBLEM-SOLVING**

- 7** How do you think these professions might use computers? Compare answers with others in your group.

architects  
 interior designers  
 farmers  
 landscape gardeners  
 musicians  
 rally drivers  
 sales people

**SPEAKING**

- 8** Work in pairs. Find out this information from your partner. Make sure you use the correct tense in your questions. For example:

download music from the Internet	[what site]
A <i>Have you ever downloaded music from the Internet?</i>	
B <i>What site did you use?</i>	
1 send a video email attachment	[who to, when]
2 fit an expansion card	[which type]
3 replace a hard disk	[what model]
4 fix a printer fault	[what kind]
5 make your own website	[how]
6 have a virus	[which virus]
7 watched TV on the Internet	[which station]
8 write a program	[which language]

**WRITING**

- 9** Describe how you use computers in your study and in your free time.

## SPECIALIST READING

**A** Find the answers to these questions in the following text.

- 1 Name some types of devices that use 'computers on a chip'.
- 2 What uses of handheld computers are mentioned in the text?
- 3 What are the benefits of using computers with the following items?
  - a Security systems
  - b Cars
  - c Phones
- 4 What smart devices are mentioned in the text?
- 5 What are smart cards used for?
- 6 What are the advantages of multimedia?
- 7 What can medical expert systems do?
- 8 How can computers help the disabled?
- 9 What types of computing systems are made available to people in remote locations using electronic classrooms or boardrooms?
- 10 What aspects of computing can people power determine?

## Computers Make the World Smaller and Smarter

The ability of tiny computing devices to control complex operations has transformed the way many tasks are performed, ranging from scientific research to producing

5 consumer products. Tiny 'computers on a chip' are used in medical equipment, home appliances, cars and toys. Workers use handheld computing devices to collect data at a customer site, to generate forms, to control

10 inventory, and to serve as desktop organisers.

Not only is computing equipment getting smaller, it is getting more sophisticated. Computers are part of many machines and devices that once required continual human

15 supervision and control. Today, computers in security systems result in safer environments, computers in cars improve energy efficiency, and computers in phones provide features such as call forwarding, call monitoring, and

20 call answering.

These smart machines are designed to take over some of the basic tasks previously performed by people; by so doing, they make life a little easier and a little more pleasant.

25 Smart cards store vital information such as health records, drivers' licenses, bank balances, and so on. Smart phones, cars, and appliances with built in computers can be programmed to better meet individual needs.

30 A smart house has a built-in monitoring system that can turn lights on and off, open and close windows, operate the oven, and more.

With small computing devices available for

35 performing smart tasks like cooking dinner, programming the DVD recorder, and controlling the flow of information in an organization, people are able to spend more time doing what they often do best – being creative. Computers

40 can help people work more creatively.

Multimedia systems are known for their educational and entertainment value, which we call 'edutainment'. Multimedia combines



45 text with sound, video, animation, and graphics, which greatly enhances the interaction between user and machine and can make information more interesting and appealing to people. Expert systems software enables computers to 'think' like experts.

50 Medical diagnosis expert systems, for example, can help doctors pinpoint a patient's illness, suggest further tests, and prescribe appropriate drugs.

55 Connectivity enables computers and software that might otherwise be incompatible to communicate and to share resources. Now that computers are proliferating in many areas and networks are available for people to access data and communicate with others, 60 personal computers are becoming interpersonal PCs. They have the potential to significantly improve the way we relate to each other. Many people today telecommute – that is, use their computers to stay in touch 65 with the office while they are working at home. With the proper tools, hospital staff can get a diagnosis from a medical expert hundreds or thousands of miles away. Similarly, the disabled can communicate more 70 effectively with others using computers.

Distance learning and videoconferencing are concepts made possible with the use of an electronic classroom or boardroom accessible to people in remote locations. Vast databases 75 of information are currently available to users of the Internet, all of whom can send mail messages to each other. The information superhighway is designed to significantly expand this interactive connectivity so that 80 people all over the world will have free access to all these resources.

People power is critical to ensuring that hardware, software, and connectivity are effectively integrated in a socially responsible 85 way. People – computer users and computer professionals – are the ones who will decide which hardware, software, and networks endure and how great an impact they will have on our lives. Ultimately people power 90 must be exercised to ensure that computers are used not only efficiently but in a socially responsible way.

## B Re-read the text to find the answers to these questions:

1 Match the terms in Table A with the statements in Table B.

Table A

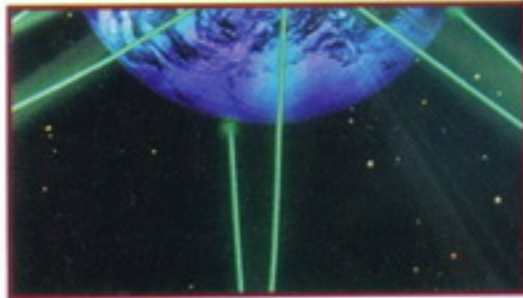
- a Edutainment
- b Multimedia
- c Expert system
- d Telecommute
- e Information superhighway

Table B

- i Software that enables computers to 'think' like experts
- ii Use computers to stay in touch with the office while working at home
- iii Internet system designed to provide free, interactive access to vast resources for people all over the world
- iv Multimedia materials with a combination of educational and entertainment content
- v A combination of text with sound, video, animation, and graphics

2 Mark the following statements as True or False:

- a Desktop organisers are programs that require desktop computers.
- b Computers are sometimes used to monitor systems that previously needed human supervision.
- c Networking is a way of allowing otherwise incompatible systems to communicate and share resources.
- d The use of computers prevents people from being creative.
- e Computer users do not have much influence over the way that computing develops.



# Computer Architecture

## STARTER

**1** Name these different types of devices. Then match the possible users below to each type. Justify your choice.



a



b



c



d



e



f



g

Fig 1

- 1 student using a computer for entertainment while travelling
- 2 large company processing payroll data
- 3 travelling salesperson giving marketing presentations
- 4 large scientific organisation processing work on nuclear research
- 5 businessperson keeping in touch with clients while travelling
- 6 graphic designer
- 7 secretary doing general office work

**2** What do these abbreviations mean? Use the Glossary if necessary.

- |   |        |   |       |
|---|--------|---|-------|
| 1 | CD-ROM | 5 | FSB   |
| 2 | TFT    | 6 | SDRAM |
| 3 | MB     | 7 | XGA   |
| 4 | GHz    |   |       |