

ICT Applications

Reading comprehension

We are now living in the *Information Age*, also called the *Computer Age*, the *Digital Age* and the *New Media Age*. It is coupled tightly with the advent of personal computers which have become an essential part of our lives. Internet growth and other digital developments have transformed society affecting the way we live, work, learn, and communicate.

Education is moving into the digital age. Pedagogies have changed to engage the latest digital technologies. The methods of distribution are now a blend between face-to-face and some other combination of virtual interfaces. The content is moving from traditional text-based learning to text-plus-multimedia and there are numerous opportunities to learn online.

Many government services are now available online. For example, you can renew or apply for a passport, book a driving test, claim benefits, fill in your tax return. In many NHS trusts, patient records are easily shared between departments within a hospital. These electronic patient records may soon be transferable across the whole health service, so that medical staff can access them from any part of the NHS. In some places, especially remote rural areas, doctors may be able to make use of computer networks to make a diagnosis if they are unable to see the patient in person.

Passenger information is increasingly available via networked computers: for example train timetables, information in stations and airports, real-time information over the internet. Networked communication systems are also crucial in the control of transport systems, from traffic lights and pedestrian crossings to air traffic control and train signals. The role of travel agents has changed as more people book their own holidays directly online.

In banks, computers store information about the money held by each customer and enable staff to access large databases and to carry out financial transactions at high speed. They also control the cashpoints, or ATMs (automatic teller machines), which dispense money to customers by the use of a PIN-protected card. (personal identification number). Today contactless payment systems use radio-frequency identification (RFID) or near field communication (NFC) for making secure payments. The embedded chip and antenna enable consumers to wave their card over a reader at the point of sale

terminal. With online banking, clients can easily pay bills and transfer money from the comfort of their homes, minimising the need for customers to visit a branch.

Digital broadcasting has changed the way we experience television, with more interactive programming and participation. Digital cameras, printers and scanners have enabled more people to experiment with image production. Computer gaming has been an important influence in the development of graphical interfaces. 3D printing and clever computers could revolutionize construction. Technology has been at the forefront of changes in the production and distribution of music, as well as in the ways in which people can access and listen to music.

Existing business types have been transformed through the use of ICT systems, for example the development of online booksellers such as Amazon. Some types of business have disappeared completely.

Questions 1-6

1. What title would you give to each paragraph?
2. What are the latest digital technologies used in education?
3. How is technology changing health administration?
4. What has online banking enabled customers to do?
5. How has the entertainment industry changed with technology?
6. Which jobs have disappeared as online and computer-based information have taken their place?

English in use: Find the words from the text above which match the words in the table below. Are they nouns, verbs, adjectives or adverbs? Write n, v, adj or adv next to each word.

Firmly	<i>Tightly</i>
rise	<i>Growth</i>
combination	<i>Blend</i>
distant/ isolated	<i>Remote</i>
essential	<i>Crucial</i>
cutting edge	
integrated	<i>Embedded</i>
reserve	<i>Book</i>
public sector corporations	<i>Trust</i>
Allow/help	<i>Enable</i>

Tenses: Which tenses are used in the text and why?

Language work: Asking questions

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 *Have you ever downloaded music from the Internet?*

B *What site did you use?*

1. fit an expansion card [which type]
2. replace a hard disk [what model]
3. fix a printer fault [what kind]
4. design your own website [how]
5. write a program [which language]

Activity

Choose one engineering invention/landmark and answer the questions.

1 What is the invention/discovery?

2 What is it used for?

3 Why is it important?

4 How did people manage before they had this invention/discovery?

Use the website and help box below to prepare your talk.

In my opinion, _____ was a very important event for mankind. Thanks to this innovation, today we are able to(give examples)

But how did people manage before they had ____?

Well, firstly they _____

Secondly, they _____

Finally, they _____

www.computerhistory.org/timeline.

Presentation time: 3-4 minutes.