

# The Internet and the web

Nobody really **owns** the Internet. Although several organizations the world over collaborate in its functioning and development, it is a public, cooperative and **self-sustaining** facility accessible to hundreds of millions of people worldwide. Data travel long distances on the Internet transferred on huge lines, high-speed, fibre-optic cables, known collectively as the Internet backbone; they are owned by telephone companies in their respective countries.

The Internet is the **massive** worldwide system of computer networks, a networking infrastructure connecting millions of computers together globally, in which users at any one computer can, if they have permission, obtain and share information from any other computer and talk directly to users at other computers. The Internet began life as a computer network called ARPA, Advanced Research Projects Agency of the U.S. government in 1969 and was first known as the ARPANET. It linked computer networks at several universities and research laboratories in the United States. The original aim was to create a network that would **allow** users in a research computer at one university to be able to “talk to” research computers at other universities.

The central point for an internet network is a **server**. A server is a computer or a hardware device that **provides** access to files and services, running to serve the requests of other programs, the **clients**, within a client-server architecture. **Peer-to-peer** networking, an alternative model, enables all computers to act as either a server or client as needed.



Information that travels over the Internet does so **via** a variety of languages known as **protocols**. SMTP (Simple Mail Transfer Protocol) is a communication procedure for mail servers; FTP (an acronym for File Transfer Protocol) is used to **shift** files between computers on a network. TCP (Transmission Control Protocol) has the job of **checking** whether the information has arrived at its destination; the IP (Internet Protocol) is the method by which data is sent from one computer to another on the Internet.

Every machine on the Internet has a unique identifying number, called IP address, once known as **dot** address. Since they were not previously **user-friendly**, in 1983 the University of Wisconsin created the **Domain** Name System (DNS) substituting meaningful and memorable names to numbers. The global address of documents and other resources on the World Wide Web is called URL (**Uniform Resource**

**to allow:** consentire

**client:** processore che vede le pagine web fornite dal server

**checking:** controllo

**domain:** dominio

**dot:** punto

**to own:** possedere

**massive:** imponente

**peer-to-peer:** peer-to-peer

(comunicazione diretta tra due

computer, specialmente per la condivisione di file)

**protocol:** assegnazione di un identificativo a tutti i processori

connessi alla rete

**to provide:** fornire

**self-sustaining:** autosufficiente

**server:** un processore che mette a

disposizione le pagine web

**to shift:** spostare

**stand-alone:** che non richiede altri strumenti esterni per funzionare

**string:** stringa

**Uniform Resource Locator:**

localizzatore unico di risorse

**user-friendly:** facile da usare

**via:** tramite

**widespread:** molto diffuso

Locator), a formatted text string used by Web browsers, email clients and other software to identify a network resource on the Internet. Two recent adaptations of Internet technology, the intranet and the extranet, also make use of the TCP/IP protocol.

You can also carry on live conversations with other computer users, using Internet Relay Chat (IRC). More recently, Internet telephony hardware and software allow real time voice conversations, known as VoIP service (an acronym for Voice over Internet Protocol), i.e. a phone service over the Internet for telephone calls. There are many applications available;

some, like Google Meet, come bundled with popular Web browsers; others, like Skype, are stand alone products.

The world of wireless Internet technology has advanced rapidly and wireless Internet access is now a reality. Wi-Fi represents many things: freedom of speech, access to information and the ability to keep in touch with both family members and strangers, near and far away. Nowadays, wireless networking has become so widespread that you can access the Internet just about anywhere at any time, without using wires: the technology uses radio waves to transmit data between your device and a router.

**available:** *disponibile*

**browser:** *navigatore, software che permette di navigare in Internet*

**to bundle:** *mettere insieme*

**to carry on:** *proseguire*

**to keep in touch:** *restare in contatto*

**real-time:** *in tempo reale*

**relay chat:** *chat che consente solo l'invio di testo*

**stand-alone:** *che non richiede altri strumenti esterni per funzionare*

**stranger:** *estraneo*

**wireless:** *senza fili*

## 1 Answer these questions.

- a. When did the Internet as a computer network begin?
- b. Who owns the Internet?
- c. Can you define the Internet?
- d. What do you need to get connected?
- e. What is a server?
- f. Do you need an IP address machine to connect to the Internet?
- g. What is an URL?
- h. What is Wi-Fi?
- i. What is Skype used for?
- j. What does modern technology use to transmit data between your computer and a router?



## 2 Match the Internet service to its function.

- |                      |                          |   |
|----------------------|--------------------------|---|
| a. WWW               | <input type="checkbox"/> | 1. To send text messages.                                     |
| b. FTP               | <input type="checkbox"/> | 2. To make phone calls over the Internet.                     |
| c. VoIP              | <input type="checkbox"/> | 3. To get Internet connections without wires.                 |
| d. Blog              | <input type="checkbox"/> | 4. To transfer any type of file.                              |
| e. SMTP              | <input type="checkbox"/> | 5. To join in live discussions through a chat.                |
| f. SMS               | <input type="checkbox"/> | 6. To write online diaries.                                   |
| g. Videoconferencing | <input type="checkbox"/> | 7. A procedure for mail servers.                              |
| h. Email             | <input type="checkbox"/> | 8. To exchange computer-stored messages by telecommunication. |
| i. IRC               | <input type="checkbox"/> | 9. For online meetings.                                       |
| j. Wi-Fi             | <input type="checkbox"/> | 10. To share information/documents.                           |