Digital Unite

What is a computer?

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Basically, a computer is an electronic machine that can carry out calculations and is able to store information.

In order to do these things, a computer uses different programs for specific tasks. For example, it has a word processing program for typing letters and a program called a Web Browser for searching and browsing the internet. Computers also come in different shapes and sizes e.g. laptops, desktops and tablets but they are all able to perform the same or similar tasks.

Beginnings

The first programmable computer, designed by Charles Babbage in the 1830s, was mechanical rather than electronic. Unfortunately it was never built, and it wasn't until World War II that British code breakers built Colossus, the world's first programmable and fully electronic computer.

However, Colossus still didn't include a number of elements present in modern computers. Finally, after the war, a complete computer was built in Manchester by the great mathematician Alan Turing, who had worked with the code breakers.

From science project to everyday tool

Computers were initially of interest only to scientists and engineers. But from the human–computer interaction theories of mouse inventor Douglas Engelbart in the 1960s to the release of the Apple Macintosh computer in 1984, they became easier to use and more capable of tasks that ordinary people could carry out.

Now, with the spread of personal computers (PCs), mobile phones, notebooks and tablets, computers have become part of our everyday lives. It's almost impossible to imagine modern society without them.

Highlights in the development of the computer

- Computers started out as huge racks of glass valves and wires that occupied multiple rooms and weighed tons. Now they can fit on tiny microchips that are barely larger than an ant and are millions of times more powerful than the first ones.
- Computers have a huge variety of uses. Originally employed to break enemy codes and calculate artillery trajectories, they're now used for everything from word processing and spreadsheets to mobile phones and playing games.
- The number of computers in the world has risen incredibly. Urban myth has it that, in the 1950s, the head of IBM estimated a global market for five – yes, *five* – computers. But within the next few years, it's expected that there will be *2 billion* computers – and that figure doesn't even include computers built into other devices.
- In the late 1960s, the American government created ARPANET, a network that allowed the few university and military computers in the US to talk to each other. This eventually turned into the internet, a global web that connects well over a billion computers – and people – to each other.

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Next steps

▶ What is a PC?

▶ What is a Mac?

▶ What is a tablet computer?

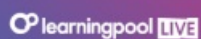Want to help people learn Digital Skills?

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