



Digital dictionary

 **BARCLAYS** | LifeSkills



Digital dictionary

| Term | Explanation |
|-------------------------------------|---|
| 3D printing | 3D printing is a way of creating three-dimensional objects from a digital design using a CAD (computer-aided drawing) program. The process works by depositing layers of plastic or other material in a pre-determined pattern in order to make the desired object. |
| Advanced machine learning | Advanced machine learning is what gives machines 'intelligence' by enabling them to understand new concepts and learn from them, essentially developing new behaviours. This is an ever-evolving area and organisations must keep up to speed in order to reap the most benefits from these advances. |
| Affective computing | Affective computing uses sensors, cameras and software to pick up the emotional state of the user. It then responds using pre-determined features set by the creator, e.g. recommending music or videos to fit the mood of the user. |
| Algorithm | A process or set of rules to be followed in calculations or other problem solving operations, especially by a computer. |
| Application | A program, or software, which has been designed for the end user. |
| Artificial intelligence (AI) | Artificial intelligence is technology that is able to learn, independently make decisions and complete complex or non-routine tasks, through which it can appear to 'think' in a similar way to humans. AI can also interact naturally with people and improve cognitive function. Examples of AI include self-driving cars, automatic speech recognition and technology that can detect potential new risks. |
| Augmented reality | Augmented reality is a way of mapping digital content onto the real world, for example with video, images, maps and text. This can be done using devices like smartphones, tablets or special headsets that create virtual environments. |
| Big data | Big data is a volume of data that is too large to be easily processed using a traditional database or software. Most businesses look to capture, format, manipulate, store and analyse these large volumes of data, as it can help to gain useful insight for the company. For example, it could help to increase revenues, retain customers and improve operations. |

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| Cache | A cache is a temporary storage area for recently used data. It allows quicker access to the information at a later date, by keeping it stored closer to the computer's central processing unit (CPU). Computers use different types of cache, such as browser and memory caches, to enhance performance and increase efficiency of data processing. |
| Click-through | Click-through is the term used for when a user clicks on a webpage advertisement, which will then take them through to the advertiser's site. |
| Cloud computing | Cloud computing is a way of accessing online services through the internet. These services include online storage such as Dropbox or applications such as Google Apps and can be accessed on demand via a connected device. |
| Cloud file sharing | Cloud file sharing is a system which allows people to use cloud computing technologies to store, share and synchronise documents, photos, videos and other files with other people. |
| Code | Coding is the 'language' needed for writing computer instructions. |
| Coders | Coders are the people who use code to create the 'language' of programming. |
| Computer scientists | Computer scientists have a broad understanding of programming, particularly at a theoretical level. |
| Computer-aided manufacturing (CAM) | Computer-aided manufacturing (CAM) is manufacturing that is automated by a computer or robot to produce goods. CAM is frequently used alongside computer-aided design (CAD). |
| Computer-brain interface | A computer-brain interface is a type of technology that can interpret brain patterns from the user and 'translate' these patterns into commands. These commands can be used to control an application or device. |
| Connected devices | Connected devices encapsulate a range of devices that are linked to the internet. Examples of these are tablets, e-readers, navigation devices, music or media players and mobile gaming devices. |

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| Content management system (CMS) | Content management systems are graphical interface platforms which allow users to create and edit digital content. Content management systems are commonly used for editing websites. |
| Cookie | Cookies are messages that are given to a web server each time the user visits that server. This logs each user who has visited a particular webpage and is often used for marketing and site tracking. |
| Customer relationship management (CRM) | Customer relationship management (CRM) is used by many businesses to see how they can best optimise their sales or make the most of their customer database. It is a strategy whereby companies can manage customer relationships either face-to-face or virtually, promoting satisfaction and loyalty. |
| Data centre | A data centre is a large network of computer servers that manages, processes or shares large amounts of data. These are typically used within companies to centralise their IT operations. |
| Developers | Developers use lots of different systems and languages to create a variety of products for end users. |
| Digital forensics | Digital forensics involves using technologies for the investigation and retrieval of material on digital devices. This is often in connection with investigating computer crime. |
| Digital marketing | Digital marketing is the marketing of products or services using different digital channels such as social media, online display ads and email campaigns. |
| Digital workplace | The digital workplace is essentially the virtual version of the physical workplace, which is designed to enhance employee engagement, collaboration, communication and agility. It also aims to make the most of virtual business tools and technologies. |

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| Electronic-business | Electronic business, or E-business, is any business arrangement which takes place over a computer network. This covers a variety of sectors and be used in a variety of scenarios such as communication with customers or suppliers and internal management. |
| E-learning | E-learning is using IT services to learn. There are various solutions to facilitate e-learning, such as specially designed software and training via online courses. |
| Encryption | Encryption is the process of turning content into code before sending it on to ensure that an unauthorised party can't decipher the information if the content is intercepted. Examples of this can be found in emails, which can be encrypted before sending if they contain sensitive data. |
| Facebook commerce (F-Commerce) | Facebook commerce, or F-commerce, is a way of developing online retail opportunities using Facebook as the primary platform. For example, a shop can present their products and information about their brand to consumers via a page on Facebook, and also allow consumers to carry out transactions within Facebook. |
| Firewall | A firewall is an application that monitors and protects a computer's network from harmful viruses or outside intrusions from cybercriminals or unwanted network traffic. |
| Framework | A framework is a structured style guide that aims to support and define the look, feel and functionality of software applications. |
| Hackers | Hackers use programming to illegally access the accounts or personal data or other users; they may also be professional hackers, who companies often hire to legally hack and test out their security systems. |
| Hyperlink | A hyperlink is an area on a webpage that, when clicked on, takes the user to another webpage. Hyperlinks are commonly used to help with the navigation of a webpage. |
| Hypertext Markup Language (HTML) | HTML is the standard language used for creating webpages. |

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| Internet of Things (IoT) | IoT is the network of physical everyday objects that are able to connect to the internet and therefore have the ability to communicate with connected devices using technology. Examples of IoT objects are light bulbs or thermostats which can be controlled using a tablet or smartphone. |
| IP address | Every computer that is connected to a network will have an IP or internet protocol address assigned to it. An IP address will make your computer identifiable with a unique address, similarly to how your home address is identified. |
| IT governance (ITG) | IT governance is the process for ensure that IT is being used effectively and efficiently, which is essential to make sure companies are able to perform at their best and remain on-track with achieving their goals. |
| JavaScript | Javascript is a 'language' designed to be used for scripting and building sites on the internet. Its common use is to create interactive features on webpages. |
| Macro | A single character or word which when entered into a program can cause a computer to perform in a certain way. |
| Massive open online course (MOOC) | MOOCs are online platforms used to connect large networks of people all over the world in order to access expert knowledge and courses over the internet. This can include webinars, videos, documents and real-time video chats with professors and experts. |
| Mobile device management (MDM) | MDM is software that manages mobile devices from a central place within an organisation. |
| Network computing | Network computing is the use of computers and devices within an interconnected network. This means that all computers within one network can share files, software, printers and scanners, wireless routers and more. |
| Open source | Open source is software that users are allowed to use, edit, copy and distribute, either at a cost or for free. |

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| Operating system | An operating system (OS) is very important software that every computer must have to run applications and programs. Operating systems are also essential for the computer being able to complete basic tasks, such as recognising hardware. |
| P2P (Peer-to-peer) | P2P is a type of network where all the computers are connected via the internet are able to communicate directly with one another, rather than going through a central server. |
| Program | A program is a compiled list of instructions which, when executed, cause the computer to 'obey' a set of pre-determined demands. |
| Programmers | Programmers use code and algorithms to develop programs such as software for end users. |
| Programming | Programming is the process of taking an algorithm, or special set of 'rules' for a computer, and turning it into a programming language that can be executed by a computer to 'obey' certain commands. |
| Quick response codes (QR codes) | Quick response codes (QR codes) are bar codes which can be read by devices, such as smartphones or computers with webcams, which have the required software installed. The software allows the device to capture the code with its camera and convert this code into a command. A common use of QR codes is to link users through to a webpage from an advert they have seen in print or online. |
| Script | The language that allows interaction with one or more applications by describing a list of commands to a particular program. |
| Subscriber identity module (SIM) card | A SIM card is a programmable smart card inside a phone that contains a unique number and stores personal data, as well as the details of the service that the user has opted into, such as a contract package with the mobile phone company. |

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| Term | Explanation |
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| Social networking | Social networking is the act of connecting with a huge, worldwide network of people to share information, communicate and collaborate. Social networking is an essential part of the current job landscape as it enables people and organisations to connect with potential employers, open pathways of communication between organisations, signpost new positions and much more besides. |
| Virtual reality (VR) | VR is an environment generated by a computer that surrounds the user and allows them to have experiences that feel like they're happening in the real world. Virtual reality also enables the user to interact with this computer-generated environment naturally, usually through a specially designed headset. |
| Web analytics | Web analytics is the process of measuring and analysing web data with an aim to optimising the way that this data is used. Web analytics tools are applications used to carry out this analysis of web data and are being increasingly used by companies to improve customer experience and meet objectives. |
| Web server | A web server is a system that delivers the content and services of a website. |