Glossary

- **Algorithm:** An unambiguous set of rules or a precise step-by-step guide to solve a problem or achieve a particular objective.
- **Bitmap:** A way of representing an image as an array of pixels (dots), where the colour of each is specified.
- **Blog:** An online journal or website made of a series of individual posts, usually displayed in reverse chronological order.
- **Buggy code:** Computer programs with mistakes.
- **Caesar cipher:** A simple cryptographic system in which the plain text is encrypted by shifting each letter along the alphabet a certain, agreed number of places.
- **Computer-Aided Design (CAD):** using computer software to help design real-world artefacts, from engineering components to buildings.
- **Cascading Style Sheet (CSS):** A document that describes the format and presentation of HTML content on the web.
- **Computer networks:** Computers and their connections, allowing data to be transferred – typically at very high speed – between one computer and another.
- **Creative Commons:** A licensing scheme where the creator of an original work allows others to use it without seeking further permission, subject to a number of agreed conditions: http://creativecommons.org.
- **Cryptanalysis:** The process of decrypting an encrypted message without prior access to the encryption key.
- **Cryptography:** The science of keeping communication and information secret.
- **Cyberbullying:** To use online systems with the deliberate intention of hurting or upsetting another person.
- **Debug:** To fix the errors in a program – the term 'bug' was used by the computing pioneer Grace Hopper in relation to a moth that had to be removed from an automatic switch in an early computer in order for the program to run.
- **Decrypt:** To convert an encrypted message into plain text so that it can be read and understood.
- **Encrypt:** To convert a plain, readable message into an encrypted form so that it cannot be read by those without a secret key.

- **Firewall:** A service protecting a local network from external access, or preventing access to some internet services from a local network.
- **Fractal:** A self-similar repeating (or almost repeating) structure in which ever greater detail becomes apparent as the structure is examined more and more closely.
- **Hyperlinks:** Text or images that, when clicked, opens another page or moves to another part of the document.
- **Hypertext mark-up language (HTML):** HTML is the predominant language for web pages.
- **Iterative development:** A trial and improvement approach to programming or other work, in which each successive version builds on the previous one by the fixing of mistakes or the adding of features.
- **Logical reasoning:** A systematic approach to solving problems or deducing information using a set of universally applicable and totally reliable rules.
- **Morse code:** A simple code for converting letters and numbers into patterns of short and long electrical pulses.
- **Page Rank:** Google's main search algorithm in which search results are ranked according to the number and quality of inbound links.
- **Photorealistic:** An image indistinguishable (or nearly indistinguishable) from a digital photograph.
- **Semaphore:** A simple code for converting letters and numbers into different positions of two flags, one held in each hand.
- **Tessellation:** A regular pattern of one shape that fills a space without overlapping or leaving spaces between.
- **Vector graphics:** A way of representing an image by specifying the lines, arcs and regions from which it is made.
- **Web server:** A service running on a computer (or sometimes the computer itself) that returns HTML data for a web page when it receives a request via the local network or the internet.
- **WordPress:** A popular open source blogging platform; also used as a general content management system.