Educational Video Game Design

GLOSSARY
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Active zone
Activatable element or area of a graphic interface in hypertext or hypermedia (translation)

ActiveX
A loosely defined set of technologies developed by Microsoft for sharing information among different applications, ActiveX is an outgrowth of two other Microsoft technologies called OLE (Object Linking and Embedding) and COM (Component Object Model). As a moniker, ActiveX can be very confusing because it applies to a whole set of COM-based technologies. Most people, however, think only of ActiveX controls, which represent a specific way of implementing ActiveX technologies (http://www.webopedia.com/TERM/A/ActiveX.html).

Alert or message box
A small box that appears on the display screen to give you information or to warn you about a potentially damaging operation. For example, it might warn you that the system is deleting one or more files. Unlike dialog boxes, alert boxes do not require any user input. However, you need to acknowledge the alert box by pressing the Enter key or clicking a mouse button to make it go away (http://webopedia.com/TERM/a/alert_box.html).

Algorithm
A formula or set of steps for solving a particular problem; to be an algorithm, a set of rules must be unambiguous and have a clear stopping point. Algorithms can be expressed in any language, from natural languages like English or French to programming languages like FORTRAN (http://www.webopedia.com/TERM/A/algorithm.html).

Aliasing
In statistics, signal processing, computer graphics and related disciplines, aliasing refers to an effect that causes different continuous signals to become indistinguishable (or “aliases” of one another) when sampled. It also refers to the distortion or artifact that results when a signal is sampled and reconstructed as an alias of the original signal (http://en.wikipedia.org/wiki/Aliasing).

Alpha channel
In graphics, a portion of each pixel's data that is reserved for transparency information: 32-bit graphics systems contain four channels, three 8-bit channels for red, green and blue (RGB) and one 8-bit alpha channel. The alpha channel is really a “mask” because it specifies how the pixel's colors should be merged with another pixel when the two are overlaid, one on top of the other (http://webopedia.com/TERM/a/alpha_channel.html).

ALT
Abbreviation of “alternative,” an attribute used to indicate the text to post when graphics output is not working in the browser, the browser cannot handle the graphics or the user is using a vocal synthesizer to listen to web page text. All web page graphics and images should have an ALT attribute (translation).

Alternative reality gaming (ARG)
Alternate reality gaming (also known as “beasting,” “unfiction” or “immersive fiction”) is an interactive fusion of creative writing, puzzle-solving and team-building, with a dose of role-playing thrown in. It utilizes several forms of media in order to pass clues to the players, who solve puzzles in order to win pieces of the story being played out. Clues can be passed through web pages, e-mail, voicemail, snail mail, television advertisements, movie posters,
campus billboards, newspaper classifieds… really, in any way that information can be passed. Many times, the puzzles that must be solved cannot be solved alone. This genre of game almost requires participation in a group or community that works together to win past the more difficult hurdles. Beasting is unique in that it wouldn't be possible without the community-building and networking power of the Internet. Besides the obvious fact that there would be no web pages or e-mail in which to hide clues, it would be nearly impossible for the diverse audience to coordinate the sheer amount of data, speculation and solutions among players.
http://www.unfiction.com/history/

Analog or analogue
When used in reference to data storage and transmission, analog format is that in which information is transmitted by modulating a continuous transmission signal, such as amplifying a signal's strength or varying its frequency to add or take away data. For example, telephones take sound vibrations and turn them into electrical vibrations of the same shape before they are transmitted over traditional telephone lines. Radio wave transmissions work in the same way. Computers, which handle data in digital form, require modems to turn signals from digital to analog before transmitting those signals over communication lines such as telephone lines that carry only analog signals. The signals are turned back into digital form (demodulated) at the receiving end so that the computer can process the data in its digital format (http://www.webopedia.com/TERM/A/analog.html).

Animation layers
Animation layers give you an interactive and non-destructive way to add keyframes on top of existing animation, making it easy to work with motion capture data without wading through highly dense Fcurves (see http://www.softimage.com/products/xsi/videos.aspx?video_id=24 and http://www.sketchpad.net/frames.htm).

Animation, kinematics
A simulation of movement created by displaying a series of pictures, or frames. Computer animation is one of the chief ingredients of multimedia presentations. There are many software applications that enable the creation of animations (adapted from http://www.webopedia.com/TERM/a/animation.html).

Anthropomorphism
Attribution of human motivation, characteristics, or behaviour to inanimate objects, animals, or natural phenomena (http://dictionary.reference.com/browse/Anthropomorphism)

Antialiasing or oversampling
In computer graphics, antialiasing is a software technique for diminishing “jaggies,” stairstep-like lines that should be smooth. Jaggies occur because the output device, the monitor or printer, doesn't have a high enough resolution to represent a smooth line. Antialiasing reduces the prominence of jaggies by surrounding the stairsteps with intermediate shades of gray (for gray-scaling devices) or colour (for colour devices). Although this reduces the jagged appearance of the lines, it also makes them fuzzier (http://webopedia.com/TERM/A/antialiasing.html).

API (Application Programming Interface)
A set of routines, protocols and tools for building software applications; a good API makes it easier to develop a program by providing all the building blocks. A programmer puts the blocks together. Most operating environments, such as MS-Windows, provide an API so that programmers can write applications that are consistent with the operating environment. Although APIs are designed for programmers, they are ultimately good for users because they guarantee that all programs using a common API will have similar interfaces. This makes it easier for users to learn new programs (http://webopedia.com/TERM/A/API.html).

Artifact
In video systems, something unnatural or unintended observed in the reproduction of an image by the system

Artifacts may appear in isolation or as repeating instances caused by collective interactions of other patterns
Aspect ratio
The ratio of width to height in a flat surface or 2-dimensional abstract construction, such as an image, character, or pixel. 4:3 (or 1.33:1) is the standard ratio for NTSC video: 1.85:1 and 2.35:1 are the most common aspect ratios for motion pictures (http://en.wiktionary.org/wiki/aspect_ratio).

Audio video interleave (AVI)
A multimedia container format introduced by Microsoft in November 1992 as part of its Video for Windows technology. AVI files can contain both audio and video data in a standard container that allows synchronous audio-with-video playback. Like DVDs, AVI files support multiple streaming audio and video, although these features are seldom used. Most AVI files also use the file format extensions developed by the Matrox OpenDML group in February 1996. These files are supported by Microsoft, and are unofficially called "AVI 2.0" (http://en.wikipedia.org/wiki/Audio_Video_Interleave).

Augmented reality (AR)
Ronald Azuma's definition of AR is one of the more focused. It covers a subset of AR's original goal, but it has come to be understood as representing the whole domain of AR: augmented reality is an environment that includes both virtual reality and real-world elements. For instance, an AR user might wear translucent goggles; through these, he could see the real world, as well as computer-generated images projected on top of that world. Azuma defines an augmented reality system as one that
- Combines real and virtual.
- Is interactive in real-time.
- Is registered in 3D.
This definition is now often used in some parts of the research literature (Azuma, 1997) (http://en.wikipedia.org/wiki/Augmented_reality).

Avatar
An avatar (abbreviations include AV, ava, avie, avy, avi, avvie, avis, avies, avii, and avvy) is an Internet user's representation of himself or herself, whether in the form of a three-dimensional model used in computer games, a two-dimensional icon (picture) used on Internet forums and other communities or a text construct found on early systems such as MUDs. The term "avatar" can also refer to the personality connected with the screen name, or handle, of an Internet user (http://en.wikipedia.org/wiki/Avatar_(icon)).

Bandwidth
(1) A range within a band of frequencies or wavelengths
(2) The amount of data that can be transmitted in a fixed amount of time. For digital devices, bandwidth is usually expressed in bits per second (bps) or bytes per second. For analog devices, bandwidth is expressed in cycles per second, or Hertz (Hz).

Bandwidth is particularly important for Input/Output devices. For example, a fast disk drive can be hampered by a low bandwidth (http://webopedia.com/TERM/b/bandwidth.html).

Behaviour
Dreamweaver behaviours place JavaScript code in documents to allow visitors to interact with a web page to change the page in various ways or to cause certain tasks to be performed. A behaviour is a combination of an event with an action triggered by that event. In the Behaviours panel, you add a behaviour to a page by specifying an action and then specifying the event that triggers that action. Note: Behaviour code is client-side JavaScript code; that is, it runs in browsers, not on servers ([source?]).

Bézier curves
Bézier curves are widely used in computer graphics to model smooth curves. As the curve is completely contained in the convex hull of its control points, the points can be graphically displayed and used to manipulate the curve intuitively. Affine transformations such as translation, scaling and rotation can be applied on the curve by applying the respective transform on the control points of the curve. French engineer Pierre Bézier improve the technique to model car bodies (adapted from http://en.wikipedia.org/wiki/B%C3%A9zier_curve).

**Binary**

Computers are based on the binary numbering system, which consists of just two unique numbers, 0 and 1. All operations that are possible in the decimal system (addition, subtraction, multiplication and division) are equally possible in the binary system (http://webopedia.com/TERM/b(binary.html).

**Bit map**

A representation, consisting of rows and columns of dots, of a graphics image in computer memory: the value of each dot (whether it is filled in or not) is stored in one or more bits of data. For simple monochrome images, one bit is sufficient to represent each dot, but for colours and shades of gray, each dot requires more than one bit of data. The more bits used to represent a dot, the more colours and shades of gray that can be represented.

The density of the dots, known as the resolution, determines how sharply the image is represented. This is often expressed in dots per inch (dpi) or simply by the number of rows and columns, such as 640 by 480 (http://webopedia.com/TERM/b(bit_map.html).

**Bluetooth**

A short-range radio technology aimed at simplifying communications among Internet devices and between devices and the Internet, it also aims to simplify data synchronization between Internet devices and other computers.

Products with Bluetooth technology must be qualified and pass interoperability testing by the Bluetooth Special Interest Group prior to release. Bluetooth's founding members include Ericsson, IBM, Intel, Nokia and Toshiba (http://webopedia.com/TERM/b/bluetooth.html).

**Bookmarks or favourites**

(v) To mark a document or a specific place in a document for later retrieval. Nearly all web browsers support a bookmarking feature that lets you save the address (URL) of a web page so that you can easily re-visit the page at a later time.

(n) A marker or address that identifies a document or a specific place in a document (http://webopedia.com/TERM/b/bookmark.html)

**Breadcrumb navigation, breadcrumb trail**

A type of text-based website navigation that breaks the site into links of categories and sub-categories allowing major categories of information to be linked in a range of sequential order. Breadcrumb navigation is displayed to users, so they can easily see exactly where that web page is located within the website. While many types of websites use a breadcrumb navigation, it is becoming increasingly common for electronic commerce websites to display categories of products in this way (http://webopedia.com/TERM/b/breadcrumb_navigation.html).

An example of a Webopedia breadcrumb might look like this:
Webopedia > World Wide Web > Web Development > Breadcrumb Navigation

**Browse**

In database systems, to browse means to view data. Many database systems support a special browse mode, in which you can flip through fields and records quickly. Usually, you cannot modify data while you are in browse mode.

(2) In object-oriented programming languages, browse means to examine data structures.
(3) To view formatted documents: for example, you look at webpages with a web browser. “Browse” is often used to mean the same as “surf” (http://webopedia.com/TERM/b/browse.html)

Browser history
As you browse the Internet, each of the items you view are saved locally on your hard disk drive. This helps web pages you visit frequently load faster by loading the files from you hard disk drive instead of having to downloading the web page again. To conserve hard disk drive space or to help keep their Internet browsing private, users may find it necessary to delete their Internet history (http://www.computerhope.com/issues/ch000510.htm).

Bug
An error or defect in software or hardware that causes a program to malfunction, a bug is often caused by conflicts in software when applications try to run in tandem. According to folklore, the first computer bug was an actual bug. In 1945 at Harvard, a moth trapped between two electrical relays of the Mark II Aiken Relay Calculator caused the whole machine to shut down (http://webopedia.com/TERM/b/bug.html).

Bulletin board system (BBS)
An electronic message center; most bulletin boards serve specific interest groups. They allow you to review messages left by others and leave your own message if you want. Bulletin boards are a particularly good place to find free or inexpensive software products. In the United States alone, there are tens of thousands of BBSs (http://webopedia.com/TERM/b/bulletin_board_system_BBS.html).

Button (GUI)
In graphical user interfaces, a button is a small outlined area in a dialog box that you can click to select an option or command (http://webopedia.com/TERM/b/button.html)

Cardinality
The possibility of establishing multi-directional hypertextual links between one or more documents, their tags thus being pivotal or central points (translation)

Cascaded or cascading menu
A pull-down menu that appears from a selected option in another pull-down menu (Termium Plus)

Cascading Style Sheet (CSS)
A feature added to HTML that gives both website developers and users more control over how pages are displayed. With CSS, designers and users can create style sheets that define how different elements, such as headers and links, appear. These style sheets can then be applied to any web page.

The term “cascading” derives from the fact that multiple style sheets can be applied to the same web page (http://webopedia.com/TERM/C/CSS.html).

Casting
The process of selecting the performers for specific dramatic roles in a production (Termium Plus)

Chat
Real-time communication between two users via computer: once a chat has been initiated, either user can enter text by typing on the keyboard, and the entered text will appear on the other user's monitor. Most networks and online services offer a chat feature (http://webopedia.com/TERM/c/chat.html).
Check box
In graphical user interfaces, a box that can be clicked to turn an option on or off. When the option is on, an X appears in the box (http://webopedia.com/TERM/c/check_box.html).

Classical unities
The “classical unities” or “three unities” are rules for drama derived from a mistaken interpretation of a particular passage in Aristotle's Poetics. In their neoclassical form, they are as follows:

The unity of action: a play should have one main action that it follows, with no or few subplots.

The unity of place: a play should cover a single physical space and should not attempt to compress geography, nor should the stage represent more than one place.

The unity of time: the action in a play should take place over no more than 24 hours (http://en.wikipedia.org/wiki/Classical_unities).

Client-server architecture
A network architecture in which each computer or process on the network is either a client or a server: servers are powerful computers or processes dedicated to managing disk drives (file servers), printers (print servers) or network traffic (network servers). Clients are PCs or workstations on which users run applications. Clients rely on servers for resources, such as files, devices and even processing power (http://webopedia.com/TERM/c/client_server_architecture.html).

Cliffhanger or hook
A plot device in which a movie, novel or other work of fiction contains an abrupt ending, often leaving the main characters in a precarious or difficult situation, or with a sudden shock revelation; this type of ending is used to ensure that, if a next instalment is made, audiences will return to find out how the cliffhanger is resolved. The phrase comes from the classical end-of-episode situation in the silent film days, with the protagonist left hanging from the edge of a cliff (http://en.wikipedia.org/wiki/Cliffhanger).

Climax or turning point
A decisive moment that is of maximum intensity or is a major turning point in a plot (http://dictionary.reference.com/browse/climax)

Close-up
A scene or action in which only a small part of the performer or subject matter is visible in the frame (Termium Plus)

Codec (compressor/decompressor)
Any technology for compressing and decompressing data, codecs can be implemented in software, hardware or a combination of both. Some popular codecs for computer video include MPEG, Indeo and Cinepak (http://webopedia.com/TERM/c/codec.html).

Command prompt
A command prompt (or just “prompt”) is a sequence of (one or more) characters used in a command line interface to indicate readiness to accept commands. Its intent is to literally prompt the user to take action. A prompt usually ends with one of the characters $, %, #, ;, > and often includes other information, such as the path of the current working directory.

It is common for prompts to be modifiable by the user. Depending on the environment, they may include colours,
special characters and other elements like the current time, in order, for instance, to make the prompt more informative or visually pleasing, to distinguish sessions on various machines or to indicate the current level of nesting of commands (http://en.wikipedia.org/wiki/Command_line_interface#Command_prompt).

**Common Gateway Interface (CGI)**
A specification for transferring information between a World Wide Web server and a CGI program. A CGI program is any program designed to accept and return data that conforms to the CGI specification. The program can be written in any programming language, including C, Perl, Java or Visual Basic.

CGI programs are the most common way for web servers to interact dynamically with users. Many HTML pages that contain forms, for example, use a CGI program to process the form's data once it's submitted. Another increasingly common way to provide dynamic feedback for Web users is to include scripts or programs that run on the user's machine rather than the web server. These programs can be Java applets, Java scripts or ActiveX controls. These technologies are known collectively as “client-side solutions,” while the use of CGI is a server-side solution because the processing occurs on the web server (http://webopedia.com/TERM/C/CGI.html).

**Composition**
Lighting may be used to show only the areas of the stage which the designer wants the audience to see, and to "paint a picture" (http://en.wikipedia.org/wiki/Stage_lighting).

**Computer-aided design (CAD)**
A CAD system is a combination of hardware and software that enables engineers and architects to design everything from furniture to airplanes. In addition to the software, CAD systems require a high-quality graphics monitor, a mouse, light pen or digitizing tablet for drawing and a special printer or plotter for printing design specifications.

CAD systems allow an engineer to view a design from any angle with the push of a button and to zoom in or out for close-ups and long-distance views. In addition, the computer keeps track of design dependencies so that when the engineer changes one value, all other values that depend on it are automatically changed accordingly.

Until the mid 1980s, all CAD systems were specially constructed computers. Now, you can buy CAD software that runs on general-purpose workstations and personal computers (http://webopedia.com/TERM/C/CAD.html).

**Computer-Assisted Learning (CAL)**
An all-encompassing term which refers to the use of computers in education and training. See: http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1ARTA0001823

**Connectivity**
A computer buzzword that refers to a program or device's ability to link with other programs and devices: for example, a program that can import data from a wide variety of other programs and can export data in many different formats is said to have good connectivity. On the other hand, computers that have difficulty linking into a network (many laptop computers, for example) have poor connectivity (http://webopedia.com/TERM/c/connectivity.html).

**Contextual help**
Contextual help is assistance on a specific graphical element, like dialog box controls, and is generally displayed through a tool tip (http://www.codeproject.com/winhelp/cshelp.asp).

**Control Handles, Control Points and Direction Handles**
Special points attached to a node on a Bézier curve that are used to alter the shape and angle of the adjacent curve segment: stretching the control point manipulates the shape of a curve, and rotating the control point manipulates the angle of a curve. The behaviour of the control handles is dependent on the type of node to which
it is attached (http://graphicssoft.about.com/library/glossary/bldefcontrolhandles.htm).

**Cookie**

A message given to a web browser by a web server. The browser stores the message in a text file. The message is then sent back to the server each time the browser requests a page from the server.

The main purpose of cookies is to identify users and possibly prepare customized web pages for them. When you enter a website using cookies, you may be asked to fill out a form providing such information as your name and interests. This information is packaged into a cookie and sent to your web browser, which stores it for later use. The next time you go to the same website, your browser will send the cookie to the web server. The server can use this information to present you with custom web pages. So, for example, instead of seeing just a generic welcome page, you might see a welcome page with your name on it.

The name “cookie” derives from UNIX objects called “magic cookies,” which are tokens attached to a user or program that change depending on the areas entered by the user or program (http://webopedia.com/TERM/c/cookie.html).

**Courseware**

Software written for computer-aided instruction applications (Termium Plus)

**Cue sheet**

A cue sheet, or cue file, is a metadata file that describes how the tracks of a CD or DVD are laid out. Cue sheets are stored as plain text files and commonly have a ".cue" filename extension. CDRWIN first introduced cue sheets, which are now supported by many Optical disc authoring applications and media players.

For an audio CD, a cue sheet specifies titles and performers for the disc and its tracks, as well as the names of one or more audio files to be used. MP3, WAV and BIN files are often used, although some programs support other formats. Cue sheets are especially useful when burning or listening to live sets where all tracks are recorded in one file.

Cue sheets are also used for many types of CDs in conjunction with an image file. The image file generally has a ".bin" extension (http://en.wikipedia.org/wiki/Cue_sheet_(computing)).

**Cursor**

(1) A special symbol, usually a solid rectangle or a blinking underline character, that signifies where the next character will be displayed on the screen. To type in different areas of the screen, you need to move the cursor. You can do this with the arrow keys or with a mouse if your program supports it.

If you are running a graphics-based program, the cursor may appear as a small arrow, called a pointer. (The terms “cursor” and “pointer” are often used interchangeably.) In text processing, a cursor sometimes appears as an I-beam pointer, a special type of pointer that always appears between two characters. Note also that programs that support a mouse may use two cursors: a text cursor, which indicates where characters from the keyboard will be entered, and a mouse cursor for selecting items with the mouse.

(2) A device, similar in appearance to a mouse, that is used to sketch lines on a digitizing tablet. Cursors for digitizing tablets are sometimes called “pucks” (http://webopedia.com/TERM/c/cursor.html).

**Cut**

Editing operation of putting two images together in succession so that the transition is invisible; a clean transition allows the passage from one source of images to the next in 1.6 milliseconds. Some types of cuts are:

1) continuity: the predominant style of editing in narrative film and television. The purpose of continuity editing is to
smooth over the inherent discontinuity of the editing process and to establish a logical coherence between shots (http://en.wikipedia.org/wiki/Continuity_editing).

2) cross-cutting: used in films to establish continuity. In a cross-cut, the camera will cut away from one action to another action. Because the shots occur one after another, cross-cutting is used to suggest simultaneity of action. However, it can also be used to link significant actions that do not occur simultaneously. For instance, in D.W. Griffith's A Corner in Wheat, the film cross-cuts between the activities of rich businessmen and poor people waiting in line for bread. This creates a sharp dichotomy between the two actions and encourages the viewer to compare the two shots. Often, this contrast is used for strong emotional effect, frequently at the climax of a film. The rhythm of, or length of time between, cross-cuts can also set the tone of a scene. Increasing the rapidity between two different actions may add tension to a scene, much in the same manner as using short, declarative sentences in a work of literature (http://en.wikipedia.org/wiki/Cross-cutting).

3) [fusion]: subtle alteration of the distance and angles of points-of-view in the same scene;

4) [opposition]: juxtaposition of distances and angles of different points-of-view in the same scene;

5) [thematic]: presentation of various shots (characters, scenes, objects) to express a point-of-view;

6) [disparity]: interweaving of very different shots, momentarily distancing the viewer from the main scene;

7) [compilation]: rapid succession of shots to give the impression of movement from a location, passage of time or change in a character due to an event or series of events (translation).

American Edwin S. Porter, in The Life of An American Fireman (1903), freely cut between different connected scenes, a process he improved in The Great Train Robbery (1903). D.W. Griffith refined Porter's basic procedures to produce a cinematographic narrative that created filmic time and space with cuts between shots and between scenes by dividing a scene into a series of shots taken from various distances and angles and aligning filmed shots separately to create a rhythm. The next phase is attributable to the Russian director Kuleshov and his students Podovkin and Eiseinstein, who experimented with and improved Griffith's technical procedures. German film director G.W. Pabst created a continuous linear style that was developed in US studios in the 1930s and 1940s. This history still highly influences film and television directors today (translation).

Cybernetics

Originally the study of biological and artificial control systems, cybernetics has evolved into many disparate areas of study, with research in many disciplines, including computer science, social philosophy and epistemology. In general, cybernetics is concerned with discovering what mechanisms control systems, and in particular, how systems regulate themselves.

The term was first coined by Norbert Weiner in 1943 (http://webopedia.com/TERM/c/cybernetics.html).

Data compression or source coding

In computer science and information theory, data compression or source coding is the process of encoding information using fewer bits (or other information-bearing units) than an unencoded representation would use through use of specific encoding schemes. One popular instance of compression with which many computer users are familiar is the ZIP file format, which, as well as providing compression, acts as an archiver, storing many files in a single output file.

Compression is useful because it helps reduce the consumption of expensive resources, such as hard disk space or transmission bandwidth. On the downside, compressed data must be decompressed to be used, and this extra processing may be detrimental to some applications. For instance, a compression scheme for video may require
expensive hardware for the video to be decompressed fast enough to be viewed as it's being decompressed (the option of decompressing the video in full before watching it may be inconvenient and requires storage space for the decompressed video). The design of data compression schemes therefore involves trade-offs among various factors, including the degree of compression, the amount of distortion introduced (if using a lossy compression scheme) and the computational resources required to compress and uncompress the data.

For visual and audio data, some loss of quality can be tolerated without losing the essential nature of the data. This lossy image compression is used in digital cameras, greatly increasing their storage capacities while hardly degrading picture quality at all. Similarly, DVDs use the lossy MPEG-2 codec for video compression. In lossy audio compression, methods of psychoacoustics are used to remove non-audible (or less audible) components of the signal. Compression of human speech is often performed with even more specialized techniques, so that "speech compression" or "voice coding" is sometimes distinguished as a separate discipline than "audio compression." Voice compression is used in Internet telephony for example, while audio compression is used for CD ripping and is decoded by audio players (taken from http://en.wikipedia.org/wiki/Data_compression).

**Data flow**

The movement of data through the active parts of a data processing system in the course of the performance of specific work (Termium Plus)

**Data landscape**

Three-dimensional representation of data that is usually in the form of two-dimensional lists, tables or graphics (translation)

**Data mining**

A class of database applications that look for hidden patterns in a group of data that can be used to predict future behaviour. For example, data mining software can help retail companies find customers with common interests. The term is commonly misused to describe software that presents data in new ways. True data-mining software doesn't just change the presentation but actually discovers previously unknown relationships among the data.

Data mining is popular in the science and mathematical fields but also is utilized increasingly by marketers trying to distil useful consumer data from websites (http://webopedia.com/TERM/d/data_mining.html).

**Database, databank (DB)**

A collection of information organized in such a way that a computer program can quickly select desired pieces of data. You can think of a database as an electronic filing system. Traditional databases are organized by fields, records and files. A field is a single piece of information; a record is one complete set of fields; and a file is a collection of records. For example, a telephone book is analogous to a file. It contains a list of records, each of which consists of three fields: name, address and telephone number.

An alternative concept in database design is hypertext. In a hypertext database, any object, whether it be a piece of text, a picture or a film, can be linked to any other object. Hypertext databases are particularly useful for organizing large amounts of disparate information, but they are not designed for numerical analysis. To access information from a database, you need a database management system (DBMS). This is a collection of programs that enables you to enter, organize and select data in a database.

(2) Increasingly, the term database is used as shorthand for database management system (http://webopedia.com/TERM/d/database.html).

**Default**

A value or setting that a device or program automatically selects if you do not specify a substitute: for example,
word processors have default margins and default page lengths that you can override or reset.

The default drive is the disk drive the computer accesses unless you specify a different disk drive. Likewise, the default directory is the directory the operating system searches unless you specify a different directory.

The default can also be an action that a device or program will take. For example, some word processors generate backup files by default (http://webopedia.com/TERM/d/default.html).

Descriptor
A well-defined, unequivocal term in a "thesaurus" cross-referenced to other terms and permitted for indexing (Termium Plus)

Dialog box
A box that appears on a display screen to present information or request input. Typically, dialog boxes are temporary, disappearing once the requested information has been entered (http://webopedia.com/TERM/d/dialog_box.html).

Diegesis
The denotative material of film narrative that includes not only the narration itself but also the fictional space and time dimensions implied by the narrative (Termium Plus)

Digital
(adj.) Describes any system based on discontinuous data or events: computers are digital machines because at their most basic level they can distinguish between just two values, 0 and 1, or off and on. There is no simple way to represent all the values in between, such as 0.25. All data that a computer processes must be encoded digitally as a series of zeroes and ones.

The opposite of digital is analog. A typical analog device is a clock in which the hands move continuously around the face. Such a clock is capable of indicating every possible time of day. In contrast, a digital clock is capable of representing only a finite number of times (every tenth of a second, for example) (http://webopedia.com/TERM/d/digital.html).

Direct manipulation
A human-computer interaction style that involves continuous representation of objects of interest and rapid, reversible, incremental actions and feedback. The intention is to allow users to manipulate objects presented to them directly using actions that correspond at least loosely to the physical world. Having real-world metaphors for objects and actions can make it easier for a user to learn and use an interface (some might say that the interface is more natural or intuitive), and rapid, incremental feedback allows users to make fewer errors and complete tasks in less time because they can see the results of an action before completing the action. An example of direct-manipulation is resizing a graphical shape, such as a rectangle, by dragging its corners or edges with a mouse (http://en.wikipedia.org/wiki/Direct_manipulation).

Directionality
Every microphone has a property known as "directionality," which describes the microphone's sensitivity to sound from various directions. Some microphones pick up sound equally from all directions, and others pick up sound only from one direction or a particular combination of directions. The types of directionality are divided into three main categories:

Omnidirectional
Picks up sound evenly from all directions (omni means "all" or "every")

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Unidirectional
Picks up sound predominantly from one direction, including cardioid and hypercardioid microphones

Bidirectional
Picks up sound from two opposite directions
(http://www.mediacollege.com/audio/microphones/directional-characteristics.html)

Discussion forum or group (newsgroup)
An online discussion group: online services and bulletin board services (BBS's) provide a variety of forums in which participants with common interests can exchange open messages.

Forums are sometimes called newsgroups (in the Internet world) or conferences (http://webopedia.com/TERM/f/forum.html).

Discussion Thread
In online discussions, a series of messages that have been posted as replies to each other. A single forum or conference typically contains many threads covering different subjects. By reading each message in a thread, one after the other, you can see how the discussion has evolved. You can start a new thread by posting a message that is not a reply to an earlier message (http://webopedia.com/TERM/t/thread.html).

Distribution
Here's the path a film usually takes to get to your local theatre:
① There’s an idea for a movie.
② They create an outline and use it to promote interest in the idea.
③ A studio or independent investor decides to purchase rights to the film.
④ People are brought together to make the film (screenwriter, producer, director, cast, crew).
⑤ The film is completed and sent to the studio.
⑥ The studio makes a licensing agreement with a distribution company.
⑦ The distribution company determines how many copies (prints) of the film to make.
⑧ The distribution company shows the movie (screening) to prospective buyers representing the theatres.
⑨ The buyers negotiate with the distribution company on which movies they wish to lease and the terms of the lease agreement.
⑩ The prints are sent to the theatres a few days before the opening day.
⑪ Theatres show the movie for a specified number of weeks (engagement).
⑫ You buy a ticket and watch the movie.
⑬ At the end of the engagement, theatres send the prints back to the distribution company and make payment on the lease agreement (http://entertainment.howstuffworks.com/movie-distribution.htm).

Docufiction or fictumentary
literary journalism (http://www.vaniercollege.qc.ca/admissions/mastsched/showcdes.asp?cid=603-102-60)

Documentary film
Documentary film is a broad category of visual expression that is based on the attempt, in one fashion or another, to "document" reality. Although "documentary film" originally referred to movies shot on film stock, it has subsequently expanded to include video and digital productions that can be either direct-to-video or made for a television series. Documentary, as it applies here, works to identify a filmmaking practice, a cinematic tradition and a mode of audience reception that is continually evolving and is without clear boundaries. (See history of documentary film at same page also: http://en.wikipedia.org/wiki/Documentary_film#History).
Download
To copy data (usually an entire file) from a main source to a peripheral device. The term is often used to describe the process of copying a file from an online service or bulletin board service (BBS) to one's own computer. Downloading can also refer to copying a file from a network file server to a computer on the network.

In addition, the term is used to describe the process of loading a font into a laser printer. The font is first copied from a disk to the printer's local memory. A font that has been downloaded like this is called a soft font to distinguish it from the hard fonts that are permanently in the printer's memory.

The opposite of download is upload, which means to copy a file from your own computer to another computer (http://webopedia.com/TERM/d/download.html).

Drag 'n drop
In computer graphical user interfaces, drag-and-drop is the action of (or support for the action of) clicking on a virtual object and dragging it to a different location or onto another virtual object. In general, it can be used to invoke many kinds of actions or create various types of associations between two abstract objects. As a feature, support for drag-and-drop is not found in all software, though it is sometimes a fast and easy-to-learn technique for users to perform tasks (http://en.wikipedia.org/wiki/Drag-and-drop).

Drill & practice software
Drill and practice software packages offer structured reinforcement of previously learned concepts. They are based on question and answer interactions and should give the student appropriate feedback. Drill and practice packages may use games to increase motivation. Teachers who use computers to provide drill and practice in basic skills promote learning because drill and practice increases student acquisition of basic skills. In a typical software package of this type, the student is able to select an appropriate level of difficulty at which questions about specific content materials are set. In most cases, the student is motivated to answer these questions quickly and accurately by the inclusion of a gaming scenario, as well as colourful and animated graphics. Good drill and practice software provides feedback to students, explains how to get the correct answer and contains a management system to keep track of student progress (http://olc.spsd.sk.ca/DE/PD/instr/strats/drill/index.html).

Driver
A program that controls a device: every device, whether it be a printer, disk drive or keyboard, must have a driver program. Many drivers, such as the keyboard driver, come with the operating system. For other devices, you may need to load a new driver when you connect the device to your computer. In DOS systems, drivers are files with a.SYS extension. In Windows environments, drivers often have a.DRV extension.

A driver acts like a translator between the device and programs that use the device. Each device has its own set of specialized commands that only its driver knows. In contrast, most programs access devices by using generic commands. The driver, therefore, accepts generic commands from a program and then translates them into specialized commands for the device (http://webopedia.com/TERM/d/driver.html).
**Duplex**
Refers to the transmission of data in two directions simultaneously: for example, a telephone is a full-duplex device because both parties can talk at once. In contrast, a walkie-talkie is a half-duplex device because only one party can transmit at a time.

Most modems have a switch that lets you choose between full-duplex and half-duplex modes. The choice depends on which communications program you are running.

In full-duplex mode, data you transmit does not appear on your screen until it has been received and sent back by the other party. This enables you to validate that the data has been accurately transmitted. If your display screen shows two of each character, it probably means that your modem is set to half-duplex mode when it should be in full-duplex mode (http://webopedia.com/TERM/f/full_duplex.html).

**Dynamic HTML (dHTML)**
(1) Refers to Web content that changes each time it is viewed. For example, the same URL could result in a different page depending on any number of parameters, such as:
- Geographic location of the reader
- Time of day
- Previous pages viewed by the reader
- Profile of the reader

There are many technologies for producing dynamic HTML, including CGI scripts, Server-Side Includes (SSI), cookies, Java, JavaScript and ActiveX.

(2) When capitalized, Dynamic HTML refers to new HTML extensions that will enable a web page to react to user input without sending requests to the web server. Microsoft and Netscape have submitted competing Dynamic HTML proposals to W3C, which is producing the final specification (http://webopedia.com/TERM/d/dynamic_HTML.html).

**Edutainment**
Edutainment (also educational entertainment or entertainment-education) is a form of entertainment designed to educate as well as to amuse. Edutainment typically seeks to instruct or socialize its audience by embedding lessons in some familiar form of entertainment: television programs, computer and video games, films, music, websites, multimedia software, etc. (http://en.wikipedia.org/wiki/Edutainment).

**Electronic commerce (E-commerce)**
Business conducted over the Internet using any of the applications that rely on the Internet, such as e-mail, instant messaging, shopping carts, Web services, UDDI, FTP, and EDI, among others; electronic commerce can be between two businesses transmitting funds, goods, services and/or data or between a business and a customer (http://webopedia.com/TERM/e/electronic_commerce.html).

**Electronic document management (EDM)**
The handling of documents and collections of documents through computerized means, it includes the modeling, creation, editing, transformation and dissemination of documents (Termium Plus).

**Electronic mail (e-mail)**
A store-and-forward method of composing, sending, storing and receiving messages over electronic communication systems; the term "e-mail" (as a noun or verb) applies to the Internet e-mail system based on the Simple Mail Transfer Protocol (SMTP), X.400 systems and intranet systems, allowing users within one organization to e-mail each other. Often these workgroup collaboration organizations may use the Internet protocols or X.400 protocols for internal e-mail service. E-mail is often used to deliver bulk unsolicited messages,
or "spam," but filter programs exist which can automatically delete some or most of these, depending on the situation (http://en.wikipedia.org/wiki/Email).

E-mail list, listserve
Distributing e-mail messages to groups of people registered on a managed list (Termium Plus)

Emoticon or smiley
A composite symbol using ASCII characters to represent the mood of the message originator.

Accepted usage: place emoticons at the end of a sentence as an additional note, such as adding a ;-) for a wink, or a :-[ ] for a smirk.

On USENET, "smiley" is often used as a generic term synonymous with "emoticon", as well as specifically for the happy-face emoticon.

The term "emoticon" literally means "an icon that represents emotion." Emoticons grew out of the need to display feeling in the two-dimensional, online, written world. When speaking face-to-face (F2F), a person's facial expressions help you understand the meaning of what he or she is saying. Emoticons are an attempt to bring that extra nuance to online communications by composing a face out of ASCII characters.

Emoticons require you to tilt your head to view them correctly. (Termium Plus)

eXtensible Markup Language (XML)
A specification developed by the W3C, XML is a pared-down version of SGML, designed especially for Web documents. It allows designers to create their own customized tags, enabling the definition, transmission, validation and interpretation of data between applications and between organizations (http://webopedia.com/TERM/X/XML.html).

E-zine, webzine, cybermagazine, online magazine
An electronic magazine distributed on the Web (Termium Plus)

Fader
Group of calibrated resistors designed to introduce some degree of attenuation in an electrical circuit; faders are usually found on circuits on which the gain is very high, such as microphone inputs on consoles, on which there are 10, 20 or even 30 dB faders that, in one operation, rapidly decrease the input level when the sound signal present at the microphone is too high for the circuits of the console. The principle of attenuation may also be applied to a graphical interface control, thus allowing for the dynamic modification of different parameters (colour, position, scale, rotation, transparency, etc.) (translation).

Feed aggregator, feed reader, aggregator
Client software or a web application that collects syndicated web content, such as news headlines, blogs, podcasts and vlogs, in a single location for easy viewing (http://en.wikipedia.org/wiki/Aggregator)

Feedback
The mechanical coupling of a portion of the sound waves from the output of an audio-amplifying system to a preceding part or input circuit (such as the microphone) of the system

When excessive, acoustic feedback will produce a howling sound in the speaker (Termium Plus)

Flatness
In a painted, printed, bitmap or vectorial image, this term defines an area of uniform colour. In the heyday of Belgian comics (Hergé, Franquin, Tilleux, Greg, etc.), images were flat, without any indication of [modelé] or relief (translation).

**Flip book**
A book with a series of pictures that vary gradually from one page to the next, so that when the pages are turned rapidly, the pictures appear to animate by simulating motion or some other change. Flip books are often illustrated books for children but may also be geared towards adults and employ a series of photographs rather than drawings. Flip books are not always separate books but may appear as an added feature in ordinary books or magazines, often in the page corners. Software packages and websites are also available that convert digital video files into custom-made flip books (http://en.wikipedia.org/wiki/Flip_book).

**Flow chart**
A graphic representation of a process or the step-by-step solution of a problem, using suitably annotated symbols connected by flowlines for the purpose of designing or documenting a process or program (Termium Plus)

**Flow diagram, flowchart**
A graphic representation of a process or the step-by-step solution of a problem, using suitably annotated symbols connected by flowlines for the purpose of designing or documenting a process or program (Termium Plus)

**Focal length or distance**
The focal length of an optical system is a measure of how strongly it converges (focuses) or diverges (diffuses) light. A system with a shorter focal length has greater optical power than one with a long focal length (http://en.wikipedia.org/wiki/Focal_length).

**Force feedback, haptic feedback joystick**
The basic idea of a force feedback joystick (also called a haptic feedback joystick) is to move the stick in conjunction with onscreen action. For example, if you're shooting a machine gun in an action game, the stick will vibrate in your hands, or if you crash your plane in a flight simulator, the stick will push back suddenly. Force feedback joysticks have most of the same components as ordinary joysticks, with a few important additions—an onboard microprocessor, a couple of electrical motors and either a gear train or belt system (http://computer.howstuffworks.com/joystick8.htm).

**Frequently asked questions (FAQ)**
Pronounced as separate letters, or as "fak," an FAQ is an online document that poses a series of common questions and answers on a specific topic. FAQs originated in Usenet groups as a way to answer questions about the rules of the service. Today, there are FAQs on the Web for many topics, ranging from programming languages to gardening tips. Frequently, FAQs are formatted as help files or hypertext documents (http://webopedia.com/TERM/F/FAQ.html).

**Genetic algorithm (GA)**
A search technique used in computing to find exact or approximate solutions to optimization and search problems; genetic algorithms are a particular class of evolutionary algorithms (also known as evolutionary computation) that use techniques inspired by evolutionary biology such as inheritance, mutation, selection and crossover (also called recombination) (http://en.wikipedia.org/wiki/Genetic_algorithm).

**Granularity**
Non-uniformity in light-transmitting or reflecting properties of a developed photographic image produced by its individual particles
Not to be confused with graininess
Graininess is a subjective property whereas granularity is an objective property (Termium Plus).

“Data granularity” refers to the fineness with which data fields are sub-divided (http://en.wikipedia.org/wiki/Granularity#In_Reconfigurable_Computing_and_Supercomputing).

**Graphic charter**
An expression for all the rules for creating a harmonious, visible, readable and identifiable visual look for a website and the intellectual or commercial activities associated with it: the goal is to clarify all the internal and external communication actions of the company behind the charter. It is a book of specifications, defining the colours to be used, the format and size of the images to be inserted, the html page template, the arrangement of key elements in accordance with Richaudeau’s definition of clarity, the type of buttons and bullets, the navigation style through the pages of the site, etc. These rules usually apply to logos and [declensions], printed [reports], [posts]—to all visual communication methods. In the context of a commercial enterprise, product packaging, signage, the look of company vehicles, work clothing, premises, etc. is covered by the same rules in order to respect consistency and reinforce readability by limiting the amount of decoding (translation).

**Groupware**
A class of software that helps groups of colleagues (workgroups) attached to a local-area network to organize their activities. Typically, groupware supports the following operations:

- scheduling meetings and allocating resources
- e-mail
- password protection for documents
- telephone utilities
- electronic newsletters
- file distribution

Groupware is sometimes called workgroup productivity software (http://webopedia.com/TERM/g/groupware.html).

**Guided tour**
A designated path among a choice of hypermedia nodes allowing the learner to encounter basic information without worrying about choosing nodes or their position. The path is suggested to the hypertext or hypermedia user so that all accessible information can be presented. Some hypertext and hypermedia even offer users different path profiles based on the various ways a subject can be approached, which is particularly useful in educational applications (translation).

**HTML (HyperText Markup Language)**
The language used to mark up text documents for presentation through WWW servers
The hypertext language used in web pages (Termium Plus)

**HTTP (HyperText Transfer Protocol)**
The underlying protocol used by the World Wide Web, HTTP defines how messages are formatted and transmitted and what actions web servers and browsers should take in response to various commands. For example, when you enter a URL in your browser, this actually sends an HTTP command to the web server directing it to fetch and transmit the requested web page (http://webopedia.com/TERM/H/HTTP.html).

**HUD (Head-up display)**
Short for Heads Up Display in video and computer games, HUD is the display area where gamers can see their characters' vital statistics, such as current health, bonus attributes, armour level, ammunition count and more. What attributes are shown in the HUD differs depending on the type of game played and the game itself

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Hyperspace disorientation
Disorientation occasionally experienced when using a hypertext system usually caused by an overabundance of links or subjective links (Termium Plus)

Idea
see Launching a Film Idea, which describes the process: http://www.internetcampus.com/frtv/frtv011.htm

Input
Data being received or to be received by any component part of a computer (Termium Plus)

Instant messaging
The person-to-person ability to send electronic messages back and forth in real time on computers (Termium Plus)

Interaction, interactivity
Interactivity is a feature of the medium in question and, as digital technology becomes more accessible to the public, interest in interactivity is increasing and becoming a cultural trend, especially in the arts. Interactivity can exist in virtual or physical space. Virtual interaction usually takes place in the space of a computer, with the monitor providing visual cues and the keyboard and mouse allowing interaction. In physical space, the interaction usually involves sensors, actuators and computer systems with code that allows interactive systems to respond to human position, touch and sound (http://en.wikipedia.org/wiki/Interaction#Media_art).

Interactive kiosk or stand
A booth providing a computer-related service, such as an Automated Teller Machine (ATM); another type of Kiosk offers tourist information.

A kiosk requires a simple user interface that can be used without training or documentation, and the hardware must be rugged and capable of operating unattended for long periods of time. Touch screens can provide some of these features because they enable a user to enter and display information on the same device and eliminate the need for keyboards, which are prone to break (http://webopedia.com/TERM/k/kiosk.html).

Interface
(n.) A boundary across which two independent systems meet, act on or communicate with each other. In computer technology, there are several types of interfaces:

- user interface - the keyboard, mouse, menus of a computer system. The user interface allows the user to communicate with the operating system. Also see GUI.
- software interface - the languages and codes that the applications use to communicate with each other and with the hardware.
- hardware interface - the wires, plugs and sockets that hardware devices use to communicate with each other.

(v.) To connect with or interact with/by means of an interface.

Internet Relay Chat (IRC)
A chat system developed by Jarkko Oikarinen in Finland in the late 1980s. IRC has become very popular because it enables people connected anywhere on the Internet to join in live discussions. Unlike older chat systems, IRC is not limited to just two participants.
To join an IRC discussion, you need an IRC client and Internet access. The IRC client is a program that runs on your computer and sends and receives messages to and from an IRC server. The IRC server, in turn, broadcasts all messages to everyone participating in a discussion. There can be many discussions going on at once; each one is assigned a unique channel (http://webopedia.com/TERM/I/IRC.html).

**Interoperability**

The capability to communicate, execute programs or transfer data among various functional units in a manner that requires the user to have little or no knowledge of the unique characteristics of those units

The ability of one computer system to control another, even though the two systems are made by different manufacturers

Interoperability allows users to communicate with each other across different systems and networks regardless of the machine they happen to use (Termium Plus).

**IP (Internet Protocol) address**

Pronounced as separate letters and short for Internet Protocol, IP specifies the format of packets, also called datagrams, and the addressing scheme. Most networks combine IP with a higher-level protocol called Transmission Control Protocol (TCP), which establishes a virtual connection between a destination and a source.

IP by itself is something like the postal system. It allows you to address a package and drop it in the system, but there’s no direct link between you and the recipient. TCP/IP, on the other hand, establishes a connection between two hosts so that they can send messages back and forth for a period of time (http://www.webopedia.com/TERM/I/IP.html).

**Iteration**

A single pass through a group of instructions; most programs contain loops of instructions that are executed over and over again. The computer iterates through the loop, which means that it repeatedly executes the loop (http://webopedia.com/TERM/i/iteration.html).

**Java**

A high-level programming language developed by Sun Microsystems, Java was originally called “OAK” and was designed for handheld devices and set-top boxes. OAK was unsuccessful, so in 1995 Sun changed the name to Java and modified the language to take advantage of the burgeoning World Wide Web.

Java is an object-oriented language similar to C++ but simplified to eliminate language features that cause common programming errors. Java source code files (files with a .java extension) are compiled into a format called bytecode (files with a .class extension), which can then be executed by a Java interpreter. Compiled Java code can run on most computers because Java interpreters and runtime environments, known as Java Virtual Machines (JVMs), exist for most operating systems, including UNIX, the Macintosh OS and Windows. Bytecode can also be converted directly into machine language instructions by a just-in-time compiler (JIT).

Java is a general-purpose programming language with a number of features that make the language well-suited for use on the World Wide Web. Small Java applications are called Java “applets” and can be downloaded from a web server and run on your computer by a Java-compatible web browser, such as Netscape Navigator or Microsoft Internet Explorer (http://webopedia.com/TERM/J/Java.html).

**Java Applet**

An applet is a small Internet-based program written in Java, a programming language for the Web, which can be downloaded by any computer. The applet is also able to run in HTML. The applet is usually embedded in an HTML page on a website and can be executed from within a browser (http://webopedia.com/TERM/J/Java_applet.html).
Java Virtual Machine (JVM)
An abstract computing machine, or virtual machine, JVM is a platform-independent execution environment that converts Java bytecode into machine language and executes it. Most programming languages compile source code directly into machine code that is designed to run on a specific microprocessor architecture or operating system, such as Windows or UNIX. A JVM—a machine within a machine—mimics a real Java processor, enabling Java bytecode to be executed as actions or operating system calls on any processor regardless of the operating system. For example, establishing a socket connection from a workstation to a remote machine involves an operating system call. Since different operating systems handle sockets in different ways, the JVM translates the programming code so that the two machines that may be on different platforms are able to connect. JVMs are not the only virtual machines being used today (http://webopedia.com/TERM/J/JVM.html).

JavaScript
A scripting language developed by Netscape to enable web authors to design interactive sites: although it shares many of the features and structures of the full Java language, it was developed independently. JavaScript can interact with HTML source code, enabling web authors to spice up their sites with dynamic content. JavaScript is endorsed by a number of software companies and is an open language that anyone can use without purchasing a license. It is supported by recent browsers from Netscape and Microsoft, though Internet Explorer supports only a subset, which Microsoft calls “Jscript” (http://webopedia.com/TERM/J/JavaScript.html).

Joystick
A lever that moves in all directions and controls the movement of a pointer or some other display symbol, a joystick is similar to a mouse, except that with a mouse the cursor stops moving as soon as you stop moving the mouse. With a joystick, the pointer continues moving in the direction the joystick is pointing. To stop the pointer, you must return the joystick to its upright position. Most joysticks include two buttons called triggers. Joysticks are used mostly for computer games, but they are also used occasionally for CAD/CAM systems and other applications (http://webopedia.com/TERM/j/joystick.html).

Jump cut
In video or film production, an unnatural or jarring edit that is either deliberately created for effect or results from unintentional shifts in camera angle, frame size or movement of a subject (Termium Plus)

Keyboard shortcut, access key, hotkey
A keyboard key or key combination that causes a specified action to occur regardless of what else the computer is currently doing: the term is most widely used in relation to terminate and stay resident (TSR) programs in the MS-DOS environment (Termium Plus).

Knowbot
A knowbot is a program that automatically searches Internet sites and gathers information from them according to user-specified criteria. A knowbot is more frequently called an “intelligent agent” or simply an “agent.” A knowbot should not be confused with a search engine crawler or spider. A crawler or spider program visits websites and gathers information according to some generalized criteria, and this information is then indexed so that it can be used for searching by many individual users. A knowbot works with specific and easily changed criteria that conform to or anticipate the needs of the user or users. Its results are then organized for presentation but not necessarily for searching. An example would be a knowbot (sometimes also called a “newsbot”) that visits major news-oriented websites each morning and provides a digest of stories (or links to them) for a personalized news page (http://searchsoa.techtarget.com/sDefinition/0,,sid26_gci212447,00.html).
Life-simulation games, life simulators
Games in which the player lives or controls one or more artificial lives: a life-simulation game may focus on the biological or social aspects of life. Biological simulations may allow the player to experiment with genetics, survival or ecosystems, often in the form of an educational package (SimLife and Spore, for example). Evolution games are a sub-genre of this type of game. Social simulations base their gameplay on the social interaction between game entities (The Sims or any dating sim).

A third type of life simulation is virtual pets; popular examples are Tamagotchi, the Petz series (consisting of the Catz and Dogz series) and Nintendogs, simulations also known as “digital pets.” These titles are generally more limited than “full” life simulators, and interaction with the digital pets is commonly restricted to petting and playing (http://en.wikipedia.org/wiki/Life_simulation_game).

Lighting (stage)
The functions of lighting include:
Illumination: The simple ability to see what is occurring on stage: any lighting design will be ineffective if the audience has to strain to see the characters unless that is the explicit intent.
Revelation of form: Altering the perception of shapes onstage, particularly three-dimensional stage elements.
Focus: Directing the audience’s attention to an area of the stage or distracting them from another.
Mood: Setting the tone of a scene: harsh red light has a totally different effect than soft lavender light.
Location and time of day: Establishing or altering position in time and space; blues can suggest night time while orange and red can suggest a sunrise or sunset.
Projection/stage elements: Lighting may be used to project scenery or to act as scenery onstage.
Plot: A lighting event may trigger or advance the action onstage. (http://en.wikipedia.org/wiki/Stage_lighting)

Localization
Pertaining to or concerned with anything that is not global and is bound through specified sets of parameters of: (a) a linguistic nature including natural and special languages and associated multilingual requirements; (b) jurisdictional nature, i.e., legal, regulatory, geopolitical, etc.; (c) a sectorial nature, i.e., industry sector, scientific, professional, etc.; (d) a human rights nature, i.e., privacy, disabled/handicapped persons, etc.; and/or, consumer behaviour requirements (Termium Plus)

Location-based gaming
A location-based game (or location-enabled game) is one in which the gameplay somehow evolves and progresses via a player's location. Thus, location-based games almost always support some kind of localization technology, for example by using satellite positioning like GPS. "Urban gaming" or "street games" are typically multi-player location-based games played out on city streets and built up urban environments (http://en.wikipedia.org/wiki/Location-based_game).

Map
(n.) A file showing the structure of a program after it has been compiled, the map file lists every variable in the program along with its memory address. This information is useful for debugging purposes. Normally a compiler will not produce a map file unless you explicitly ask for it by specifying the appropriate compiler option.

(v.) (1) To make logical connections between two entities: because programs cannot translate directly from human concepts to computer numbers, they translate incrementally through a series of layers. Each layer contains the same amount of information as the layer above but in a form somewhat closer to the form that the computer understands. This activity of translating from one layer to another is called “mapping” (http://webopedia.com/TERM/m/map.html).
**Master scene script**
An approach to script writing where only the basic scenes are described; decisions on the various shots within the scenes are not outlined in the script and are left to the discretion of the director (http://www.cybercollege.com/gloss/gloss_m.htm).

**Media art**
Form of art using electronics, IT and new communication methods; technology and its various procedures are borrowed from their usual usage for producing works of art; media artists work in experimental film, video, holography, computer graphics, copygraphy and [art réseau]. They create multimedia and interactive facilities. They use computers, fax machines and satellites. They are also avant-garde TV and radio producers and even musicians whose compositions, recordings and concerts involve electronic or digital resources (translation).

**Menu**
A list of options displayed to the user by a data processing system, from which the user can select an action to be initiated (Termium Plus)

**Menu bar**
A horizontal menu that appears on top of a window: usually, each option in a menu bar is associated with a pull-down menu (http://webopedia.com/TERM/m/menu_bar.html).

**Metadata**
Data about data, metadata describes how, when and by whom a particular set of data was collected and how the data is formatted. Metadata is essential for understanding information stored in data warehouses and has become increasingly important in XML-based Web applications (http://webopedia.com/TERM/m/metadata.html).

**Metaphor**
See preliminary results of the Internet Metaphor Project at http://informationr.net/ir/6-1/paper85.html. Fascinating!

**Metonymy**
In rhetoric, metonymy is the use of a word for a concept with which the original concept behind this word is associated. Metonymy may be instructively contrasted with metaphor. Both figures involve the substitution of one term for another. In metaphor, this substitution is based on similarity, while in metonymy the substitution is based on contiguity.

Metaphor - The ship ploughed through the sea. Metonymy - The sails crossed the ocean.

In cognitive linguistics, metonymy refers to the use of a single characteristic to identify a more complex entity and is one of the basic characteristics of cognition. It is common for people to take one well-understood or easy-to-perceive aspect of something and use that aspect to stand either for the thing as a whole or for some other aspect or part of it.

A few commonly used examples of metonymy are:

<table>
<thead>
<tr>
<th>word</th>
<th>original use</th>
<th>metonymic use</th>
</tr>
</thead>
<tbody>
<tr>
<td>sweat</td>
<td>perspiration</td>
<td>hard work</td>
</tr>
<tr>
<td>dish</td>
<td>item of crockery</td>
<td>a course (in dining)</td>
</tr>
<tr>
<td>press</td>
<td>printing press</td>
<td>news media</td>
</tr>
</tbody>
</table>

(http://en.wikipedia.org/wiki/Metonymy)
MIDI (musical instrument digital interface) controllers
A MIDI controller is a device that is able to transmit performance related MIDI events; the most common type of controller is a MIDI device with a keyboard. There are keyboard controllers without sound modules. The instrument produces no sound of its own but generates MIDI events from the keyboard. A keyboard controller usually will have weighted keys that have the "feel" and "response" of a piano. Keyboard controllers usually have 76 or 88 keys.
(http://web.physik.rwth-aachen.de/~harm/aixphysik/sound/midi/pages/midicntr.html).

Motion blur
The apparent streaking of rapidly moving objects in a still image or a sequence of images such as a movie or animation (http://en.wikipedia.org/wiki/Motion_blur)

Motion Capture (mocap)
Motion tracking or motion capture started as a photogrammetric analysis tool in biomechanics research in the 1970s and 1980s and expanded into education, training, sports and recently computer animation for film and video games as the technology matured. A performer wears markers near each joint to identify the motion by the positions or angles between the markers. Acoustic, inertial, LED, magnetic or reflective markers, or combinations of any of these, are tracked, optimally at least two times the rate of the desired motion, to submillimeter positions. The motion capture computer software records the positions, angles, velocities, accelerations and impulses, providing an accurate digital representation of the motion (http://en.wikipedia.org/wiki/Motion_capture).

Multimodal interaction
Multimodal interaction provides the user with multiple modes of interfacing with a system beyond the traditional keyboard and mouse input/output. The most common such interface combines a visual modality (e.g., a display, keyboard and mouse) with a voice modality (speech recognition for input, speech synthesis and recorded audio for output). However, other modalities, such as pen-based input or haptic input/output, may be used. Multimodal user interfaces are a research area in human-computer interaction.

The advantage of multiple modalities is increased usability: the weaknesses of one modality are offset by the strengths of another. On a mobile device with a small visual interface and keypad, a word may be quite difficult to type but very easy to say.

Multimodal user interfaces have implications for accessibility. A well-designed multimodal application can be used by people with a wide variety of impairments. Visually impaired users rely on the voice modality with some keypad input. Hearing-impaired users rely on the visual modality with some speech input. Other users will be "situationally impaired" (e.g., wearing gloves in a very noisy environment, driving, or needing to enter a credit card number in a public place) and simply use the appropriate modalities as desired. On the other hand, a multimodal application that requires users to be able to operate all modalities is very poorly designed (http://en.wikipedia.org/wiki/Multimodal_interaction).

Multi-platform, cross-platform
Cross-platform, or multi-platform, is a term which can refer to computer programs, operating systems, computer languages, programming languages or other computer software and their implementations that can be made to work on multiple computer platforms. For example, a cross-platform application may run on Microsoft Windows on the x86 architecture, Linux on the x86 architecture and Mac OS X on either the PowerPC based Apple Macintosh or the x86 based Apple Macintosh systems. A cross-platform application could run on all common platforms or simply more than one (http://en.wikipedia.org/wiki/Cross-platform).
Music sequencer
A music sequencer (also MIDI sequencer or just sequencer) is software or hardware designed to create and manage electronic music. Originally, music sequencers did not include the ability to record audio. Instead, they only managed "remote-control" information (such as "note on" and "note off" events) to be sent to electronic musical instruments to produce the audio output. Most modern sequencers now feature audio editing and processing capabilities as well. Consequently, the terms "music sequencer" and "digital audio workstation" are often used interchangeably.

Although the term “sequencer” is today used primarily for software, some hardware synthesizers and almost all music workstations include a built-in MIDI sequencer. Drum machines generally have a step sequencer built in. There are still also standalone hardware MIDI sequencers, though the market demand for those has diminished greatly in the last ten years.

Many sequencers have features for limited music notation, and most are able to show music in a piano roll notation. Music can also be sequenced using trackers such as ModPlug Tracker, and some of those are able to sequence MIDI events too (http://en.wikipedia.org/wiki/Music_sequencer).

Musical Interface for Digital Instrument (MIDI)
Pronounced “middy,” an acronym for musical instrument digital interface, a standard adopted by the electronic music industry for controlling devices, such as synthesizers and sound cards, that emit music. At minimum, a MIDI representation of a sound includes values for the note’s pitch, length and volume. It can also include additional characteristics, such as attack and delay time.

The MIDI standard is supported by most synthesizers, so sounds created on one synthesizer can be played and manipulated on another synthesizer. Computers that have a MIDI interface can record sounds created by a synthesizer and then manipulate the data to produce new sounds. For example, you can change the key of a composition with a single keystroke (http://webopedia.com/TERM/M/MIDI.html).

Netiquette
Contraction of “Internet etiquette,” the etiquette guidelines for posting messages to online services, and particularly Internet newsgroups, Netiquette covers not only rules to maintain civility in discussions (i.e., not “flaming”) but also special guidelines unique to the electronic nature of forum messages. For example, netiquette advises users to use simple formats because complex formatting may not appear correctly for all readers. In most cases, netiquette is enforced by fellow users who will vociferously object if you break a rule of netiquette (http://webopedia.com/TERM/n/netiquette.html).

Noise gate
Electronic device or software logic commonly used to control the volume of an audio signal in the recording studio and sound reinforcement; small portable units are also used by rock musicians to control unwanted noise from their amplification systems. Band-limited noise gates are also used to eliminate background noise from audio recordings by eliminating frequency bands that contain only static (http://en.wikipedia.org/wiki/Noise_gate).

Object-oriented programming (OOP)
In object-oriented programming, one constructs entities, called objects, each with its own state and behaviour. A new object is constructed either from scratch or as a specialization of another object (or objects); a specialized object inherits the attributes of the object it's based on but can be given additional (or alternative) attributes of its own (Termium Plus).

Offline
Describes a system which is, at the moment, not connected (generally electrically) to a larger network: for
example, a power plant which is not connected to the grid or a computer which is not connected to the Internet or to any other communications service. I printed the web pages so I could read them later when I was offline (http://en.wiktionary.org/wiki/offline#Etymology).

**Online, on-line**
Pertaining to the operation of a functional unit when under the direct control of the computer (Termium Plus)

**Ontologies**
Collections of statements written in a language such as RDF that define the relations between concepts and specify logical rules for reasoning about them

Computers will "understand" the meaning of semantic data on a web page by following links to specified ontologies (Termium Plus).

**Optimize**
(1) In programming, to fine-tune a program so that it runs more quickly or takes up less space
(2) When applied to disks, the term means the same as “defragment”
(3) To configure a device or application so that it performs better (http://webopedia.com/TERM/o/optimize.html)

**Output**
Data being produced or to be produced by any component part of a computer (Termium Plus)

**Outtake**
A shot or scene not used in the final print of a film (Termium Plus)

**Parent and child layers**
Parenting is a process by which changes to layers can be synchronized by assigning one layer’s transformations to another layer. After one layer is made a parent to another layer, the other layer is called the child layer. When you assign a parent, the child layer’s transform properties become relative to the parent layer instead of to the composition. See detailed Adobe explanation at http://livedocs.adobe.com/en_US/AfterEffects/8.0/help.html?content=WS3878526689cb91655866c1103906c6dea-7da0.html.

**Patch**
Also called a service patch, a fix to a program bug, a patch is an actual piece of object code that is inserted into (patched into) an executable program. Patches typically are available as downloads over the Internet (http://webopedia.com/TERM/p/patch.html).

**Personal Data Assistant (PDA)**
A handheld device that combines computing, telephone/fax, Internet and networking features, a typical PDA can function as a cellular phone, fax sender, web browser and personal organizer. Unlike portable computers, most PDAs began as pen-based, using a stylus rather than a keyboard for input. This means that they also incorporated handwriting recognition features. Some PDAs can also react to voice input by using voice recognition technologies. PDAs of today are available in either a stylus or keyboard version (http://webopedia.com/TERM/P/PDA.html).

**Picture-in-picture (PIP)**
Feature on some televisions and most HDTV sets that allows you to see a second program inside a small window on your television, allowing you to watch two programs at once (http://webopedia.com/TERM/P/PIP.html)
Playability
The degree to which a game is fun to play and usable, with an emphasis on the interaction style and plot-quality of the game; the quality of gameplay

Playability is affected by the quality of the storyline, responsiveness, pace, usability, customizability, control, intensity of interaction, intricacy, strategy, the degree of realism and the quality of graphics and sound (http://www.usabilityfirst.com/glossary/term_657.txt).

Plug-in
An extension to a browser for handling special types of data (Termium Plus)

Pop-up menu
A window that appears rapidly on the display surface in response to some action or event

Portable Document Format (PDF)
PDF is a file format developed by Adobe Systems. PDF captures formatting information from a variety of desktop publishing applications, making it possible to send documents and have them appear on the recipient's monitor (or printer) as they were intended to be viewed. A properly prepared PDF will maintain the original fonts, images, graphics and exact layout of the file (think of it as an electronic snapshot). A PDF file can be shared, viewed and printed by anyone using the free Adobe Reader software, regardless of the operating system, original design application or fonts (http://webopedia.com/DidYouKnow/Computer_Science/2005/pdf.asp).

Primary colours
Primary colours are sets of colours that can be combined to make a useful range. For human applications, three are often used; for additive combination of colours, as in overlapping projected lights or in CRT displays, the primary colours normally used are red, green and blue (http://en.wikipedia.org/wiki/Primary_color).

Production bible or writers guidelines
Assembling all recurring elements (premises, characters, settings, themes, situations, etc.) of a TV series., the production bible exhaustively documents the concept, procedure and evolution of a series. It contains a series of detailed documents: scenario, [feuille de dépouillement], continuity report, [séquencier], treatment and shooting script (translation) (see Lee Goldberg example at http://www.leegoldberg.com/pdfs/dm%20bible.pdf).

Proxemics
Proxemics involves the ways in which people in various cultures utilize both time and space as well as body position and other factors for purposes of communications (Termium Plus).

Pull-down or drop-down menu
A menu that appears below a menu bar when the user selects a name or an icon from the menu bar (Termium Plus)

Query
A request to extract data directly or to derive them from a database, based on specified conditions (Termium Plus)

Radio button
Or option button (sometimes improperly referenced as "radial button") is a type of graphical user interface widget that allows the user to choose one of a predefined set of options, radio buttons are arranged in groups of two or more and displayed on screen as, for example, a list of circular holes that can contain white space (for unselected) or a dot (for selected). Adjacent to each radio button is normally shown a caption describing the choice that this radio button represents. When the user selects a radio button, any previously selected radio button in the same group will be deselected.
group becomes deselected. Selecting a radio button is done by clicking the mouse on the button, or the caption, or by using a keyboard shortcut.

Radio buttons got their name from the physical buttons used on radios to select preset stations (http://en.wikipedia.org/wiki/Radio_button).

Random
Said of a phenomenon or action, the effects of which stem from chance or are unforeseeable (translation)

Rasterize
To convert an image into a set of points arranged on a grid (Termium Plus)

Readability
Reading ease. For complete description, see http://en.wikipedia.org/wiki/Readability.

Red-green-blue (RGB)
Video display using red, green and blue signals, providing a higher quality than the RF (radio frequency) display (Termium Plus)

Resolution
The number of image pixels that can be resolved or read separately in a square-inch grid

Expressed in dots per inch (dpi) or bits per inch (bpi) (Termium Plus)

Right-brain, left-brain thinking
The concept of right brain and left brain thinking developed from the research in the late 1960s of an American psychobiologist Roger W. Sperry. He discovered that the human brain has two very different ways of thinking. One (the right brain) is visual and processes information in an intuitive and simultaneous way, looking first at the whole picture then the details. The other (the left brain) is verbal and processes information in an analytical and sequential way, looking first at the pieces then putting them together to get the whole. Sperry was awarded a Nobel Prize in 1981, although subsequent research has show things aren't quite as polarized as once thought (nor as simple) (http://painting.about.com/od/rightleftbrain/a/Right_Brain.htm).

Rollover image
"Rollover images" are images that change when the mouse is over them. Rollover images (or "rollovers") are popular because they give the image a live feeling, indicating that something will happen when you click on them (http://www.htmlcodetutorial.com/images/images_famsupp_59.html).

RSS
RSS is the acronym used to describe the de facto standard for the syndication of Web content. RSS is an XML-based format and while it can be used in different ways for content distribution, its most widespread usage is in distributing news headlines on the Web. A website that wants to allow other sites to publish some of its content creates an RSS document and registers the document with an RSS publisher. A user that can read RSS-distributed content can use the content on a different site. Syndicated content can include data such as news feeds, events listings, news stories, headlines, project updates, excerpts from discussion forums or even corporate information.

Because there are different versions of RSS, the term RSS is most frequently used as a name to mean the syndication of Web content, rather than as an acronym for its founding technology. When using the name RSS, the speaker may be referring to any of the following versions of Web content syndication:

- RDF Site Summary (RSS 0.9, RSS 1.0)
Sample
A representative value of a signal at a chosen instant, derived from a portion of that signal (Termium Plus)

Sampling
In pulse code modulation, the act of selecting samples of an analog wave at recurring intervals such that the original wave can later be reconstructed with reasonable fidelity from the samples (Termium Plus)

Scalability
In telecommunications and software engineering, scalability is a desirable property of a system, network or process that indicates its ability to either handle growing amounts of work in a graceful manner, or to be readily enlarged. For example, it can refer to the capability of a system to increase total throughput under an increased load when resources (typically hardware) are added (http://en.wikipedia.org/wiki/Scalability).

Scalable Vector Graphic (SVG)
A vector graphics file format that enables two-dimensional images to be displayed in XML pages on the Web. Vector images are created through text-based commands formatted to comply with XML specifications. In contrast to JPEG and GIF images on the Web, which are bitmapped and always remain a specified size, SVG images are scalable to the size of the viewing window and will adjust in size and resolution according to the window in which it is displayed. Benefits of SVG include:

- smaller files size than regular bitmapped graphics such as GIF and JPEG files
- resolution independence, so that the image can scale down or up to fit proportionally into any size display on any type of Web device
- text labels and descriptions that can be searched by search engines
- ability to link to parts of an image
- complex animation
(http://webopedia.com/TERM/S/SVG.html)

Scenario
A scenario (from Italian, that which is pinned to the scenery) is a synthetic description of an event or series of actions and events. In the Commedia dell'arte it was an outline of entrances, exits and action describing the plot of a play that was literally pinned to the back of the scenery. It is also known as "canovaccio" or "that which is pinned to the canvas" of which the scenery was constructed.

Surviving scenari from the Renaissance contain little other than character names, brief descriptions of action, and references to specific lazzi with no further explanation. It is believed that a scenario forms the basis of a fully improvisational performance, though it is also likely that they were simple reminders of the plot for those members of the cast who were literate. Modern commedia troupes most often make use of a script with varying degrees of additional improvisation.

In the creation of an opera or ballet, a scenario is often developed initially to indicate how the original source, if any, is to be adapted and to summarize the aspects of character, staging, plot, etc. that can be expanded later in a fully developed libretto, or script. This sketch can be helpful in "pitching" the idea to a prospective producer, director, or composer (http://en.wikipedia.org/wiki/Scenario).
**ScreenTip or ToolTip**
A graphical user interface (GUI) feature in which a small text box appears when a mouse pointer is hovered over an icon or button; the pop-up window will provide details that explain the icon's or button's function. In some instances, though, the ScreenTip will display only the item's name. When the mouse is moved away from the icon or button, the ScreenTip will disappear from view (http://webopedia.com/TERM/S/ScreenTip.html).

**Scrollbar**
A graphical control in a graphical user interface (GUI) with which continuous text, pictures or anything else can be moved up and down, including time in video applications, i.e., viewed even if it does not fit into the space in a computer display, window, or viewport (http://en.wikipedia.org/wiki/Scrollbar).

**Semantic Web**
The semantic Web is taken as an approach to reduce the burden for the user and to automate the processing of Web content, making it machine-understandable rather than just machine-presentable. It is distinguished from natural language processing semantics insofar as it addresses a far broader range of multimedia resources than text and is based on content description rather than (purely) linguistic/grammatical analysis.

The Web was designed as an information space, with the goal that it should be useful not only for human-human communication, but also that machines would be able to participate and help. One of the major obstacles to this has been the fact that most information on the Web is designed for human consumption, and even if it was derived from a database with well-defined meanings (in at least some terms) for its columns, that the structure of the data is not evident to a robot browsing the Web. Leaving aside the artificial intelligence problem of training machines to behave like people, the semantic Web approach instead develops languages for expressing information in a machine processable form (Termium Plus).

**Serendipidity**
Serendipity is the effect by which one accidentally discovers something fortunate, especially while looking for something else entirely. The word derives from an old Persian fairy tale and was coined by Horace Walpole on 28 January 1754 in a letter he wrote to his friend Horace Mann (not the same man as the famed American educator), an Englishman then living in Florence (for more, see http://en.wikipedia.org/wiki/Serendipity#The_role_of_serendipity_in_science_and_technology).

**Shared display**
Technique that allows the simultaneous display of the same data on different workstation screens so that several users can work on the same document in real time (translation)

**ShockWave Flash (SWF)**
A proprietary vector graphics file format produced by the Flash software from Adobe (formerly Macromedia) and intended to be small enough for publication on the Web, SWF files can contain animations or applets of varying degrees of interactivity and function. SWF is also sometimes used for creating animated display graphics and menus for DVD movies and for television commercials (http://en.wikipedia.org/wiki/SWF).

**Shooting script**
When a screenplay is approved for production, the scenes are assigned numbers that are included in the script alongside the scene headers. The numbers provide a convenient way for the various production departments to reference individual scenes.

After a shooting script has been widely circulated, any rewrites are distributed on revision pages. This avoids having to print and distribute an entirely new draft for every set of revisions. Revision pages are distributed on coloured paper (a different colour for each set of revisions), with the revisions themselves marked by asterisks.
The progression of colours varies from one production to the next, but a typical sequence would be: blue, pink, yellow, green, gold, salmon, cherry, white and then back to blue.

In some cases, usually before the start of principal photography, an entirely new "white draft" will be distributed in lieu of coloured revision pages. The pages in a white draft are renumbered from scratch, while the original scene numbers are maintained (http://en.wikipedia.org/wiki/Shooting_script).

**Shot reverse shot**

Shot reverse shot (or shot/countershot) is a film technique wherein one character is shown looking (often off-screen) at another character, and then the other character is shown looking "back" at the first character. Since the characters are shown facing in opposite directions, the viewer unconsciously assumes that they are looking at each other (the 180 degree rule). However, shot reverse shot is also often combined with creative geography to create the sense that two characters are facing each other, when in fact they may be being filmed in completely different locations or at completely different times. These techniques are all features of the "classical" Hollywood style of continuity editing, which deemphasizes transitions between shots such that the audience perceives one continuous action that develops linearly, chronologically and logically (http://en.wikipedia.org/wiki/Shot_reverse_shot).

**Signal threshold**

Level of tension above or beyond which a device will modify the dynamic of a signal (translation)

**Six degrees of freedom (6DoF)**

Refers to motion in three-dimensional space, namely the ability to move forward/backward, up/down, left/right (translation in three perpendicular axes) combined with rotation about three perpendicular axes (yaw, pitch, roll). Because the movement along each of the three axes is independent of each other and independent of the rotation about any of these axes, the motion indeed has six degrees of freedom.

Robot arms are often categorized by their degrees of freedom (typically achieving more than six degrees of freedom). This number typically refers to the number of single-axis rotational joints in the arm, where a higher number indicates an increased flexibility in positioning a tool. This is a practical metric, in contrast to the abstract definition of degrees of freedom which measures the aggregate positioning capability of a system. Dean Kamen, inventor of the Segway, recently unveiled a prototype robotic arm with 21 degrees of freedom for DARPA.

Six degrees of freedom is also a gameplay style wherein there is often no gravity, and players are free to move in any 3-dimensional direction. It is used in games such as *Descent* and its sequels, and to a lesser extent the *Homeworld* and *Zone Of The Enders* games (http://en.wikipedia.org/wiki/Six_degrees_of_freedom).

**Slaving**

A computer or peripheral device controlled by another computer: for example, a terminal or printer in a remote location that only receives data is a slave. When two computers are hooked up via their serial or parallel ports for file exchange, the file transfer program may make one computer the master and the other the slave (http://encyclopedia2.thefreedictionary.com/slaving).

**Sound bridge**

Sound in the cinema does not necessarily match the image, nor does it have to be continuous. The sound bridge is used to ease the transition between shots in the continuity style. Sound can also be used to reintroduce events from earlier in the diegesis. Especially since the introduction of magnetic tape recording after WWII, the possibilities of sound manipulation and layering have increased tremendously. Directors such as Robert Altman are famous for their complex use of the soundtrack, layering multiple voices and sound effects in a sort of "sonic deep focus."
Sound bridges can lead in or out of a scene. They can occur at the beginning of one scene when the sound from the previous scene carries over briefly before the sound from the new scene begins. Alternatively, they can occur at the end of a scene, when the sound from the next scene is heard before the image appears on the screen. Sound bridges are one of the most common transitions in the continuity editing style, one that stresses the connection between both scenes since their mood (suggested by the music) is still the same. But sound bridges can also be used quite creatively (as in jump cuts, for example) (http://classes.yale.edu/film-analysis/htmfiles/sound.htm).

Sound spatialization
An individual sound can be filtered so that it appears to emanate from a specified direction when played by headphones. The filters simulate the distortion of the sound caused by the body, head and pinna. Today fast DSP (digital signal processing) hardware allows real-time filtering and dynamic updating of the filter properties, thus allowing interactive processes to be created for real-time spatialization (e.g., allowing head movement and movement of virtual sources). The number of sound sources which can be presented simultaneously is limited by the processing capacity of the DSP-hardware. Presently available hardware like the Motorola 56001 can process two spatial sound sources in real time. Spatial sound is presently used in the auralization of models for room acoustics. Spatial sound gives an enhanced situational awareness and aids in the separation of different data streams (“Cocktail Party Effect.”) Therefore, future applications could be in the fields of telerobotic control, air traffic control, data auralization and teleconferences (http://hwr.nici.kun.nl/~miami/taxonomy/node28.html).

Splash page, splash screen
The page of a website that the user sees first before being given the option to continue to the main content of the site, splash pages are used to promote a company, service or product or to inform the user of what kind of software or browser is necessary in order to view the rest of the site's pages. Often a splash page will consist of animated graphics and sounds that entice the user into exploring the rest of the website. Some splash pages will bring the user to the main website automatically, and some require the user to click on a link that will load the main page (http://webopedia.com/TERM/s/splash_page.html).

Sprite
A graphic image that can move within a larger graphic: animation software that supports sprites enables the designer to develop independent animated images that can then be combined in a larger animation. Typically, each sprite has a set of rules that define how it moves and how it behaves if it bumps into another sprite or a static object (http://webopedia.com/TERM/s/sprite.html).

Status bar
A component often found at the bottom of windows in a graphical user interface (GUI). It is very frequently divided into sections, each of which shows different information. Its job is primarily to display information about the current state of its window, although some status bars have extra functionality. For example, many web browsers have clickable sections that pop up a display of security or privacy information (http://en.wikipedia.org/wiki/Status_bar).

Step outline
A step outline is a detailed telling of a story intended to be turned into a screenplay for a motion picture. The step outline details every scene and beat of a screenplay's story and often has indications for dialogue and character interactions. The scenes are often numbered for convenience. It is similar to a scriptment and more detailed and specific than either a treatment or an outline (http://en.wikipedia.org/wiki/Step_outline).

Storyboard
Graphic organizer, such as a series of illustrations or images displayed in sequence for the purpose of previsualizing a motion graphic or interactive media sequence, including website interactivity; for more details, see http://en.wikipedia.org/wiki/Storyboard#Animatics.
**Streaming**
A technique for transferring data such that it can be processed as a steady and continuous stream, streaming technologies are becoming increasingly important with the growth of the Internet because most users do not have fast enough access to download large multimedia files quickly. With streaming, the client browser or plug-in can start displaying the data before the entire file has been transmitted.

For streaming to work, the client side receiving the data must be able to collect the data and send it as a steady stream to the application that is processing the data and converting it to sound or pictures. This means that, if the streaming client receives the data more quickly than required, it needs to save the excess data in a buffer. If the data doesn't come quickly enough, however, the presentation of the data will not be smooth. There are a number of competing streaming technologies emerging. For audio data on the Internet, the de facto standard is Progressive Network's RealAudio (http://webopedia.com/TERM/s/streaming.html).

**Synopsis**
A brief summary of the plot of a motion picture; an outline of three or four typewritten pages containing the summary of character and action (Termium Plus)

**Tag, hypertext link, hyperlink**
An element in an electronic document that links to another place in the same document or to an entirely different document. Typically, you click on the hyperlink to follow the link. Hyperlinks are the most essential ingredient of all hypertext systems, including the World Wide Web (http://www.webopedia.com/TERM/h/hyperlink.html).

**Telepresence**
A set of technologies which allow people to feel as if they are present, to give the appearance that they are present, or to have an effect at a location other than their true location, telepresence requires that the senses of users are provided with stimuli to give the feeling of being in that other location. Additionally, users may be given the ability to affect the remote location. The user's position, movements, actions, voice, etc. may be sensed, transmitted and duplicated in the remote location to bring about this effect. Therefore, information may be travelling in both directions between the user and the remote location (http://en.wikipedia.org/wiki/Telepresence).

**Three-point lighting**
An aesthetic convention in which an actor or object is lit from three sources or points of light of varying intensity: one main source illuminating (key light), one source filling shadows (fill light and one source backlighting the actors (back light) (Termium Plus)

**Timeline**
(1) In video editing, a timeline is a commonly used interface found in most video editing programs. This interface enables authors to lay a video project out in a linear fashion horizontally across a monitor.
(2) A chronological display of an edited sequence in a non-linear editing system (http://webopedia.com/TERM/t/timeline.html).

**Toolbar**
A series of selectable buttons in a GUI that give the user an easy way to select desktop, application or web browser functions. Toolbars are typically displayed as either a horizontal row or a vertical column around the edges of the GUI where they are visible while the application is in use. Most applications use toolbars as they give the user another option aside from pull-down menus (http://webopedia.com/TERM/t/toolbar.html).

**Toolbox, toolkit**
In computer graphics, a set of tools proposed in drawing applications (rectangle, circle, line) allowing the creation of simple or complex objects and images (Termium Plus)
Topology
The shape of the connections between different components of a network, such as a star, bus or ring network (Termium Plus)

Trace
A record of the execution of all or part of a program, showing the sequence of instructions or statements executed, the operands involved and their names and the results (Termium Plus)

Transducer
A device for converting energy from one form to another

For example: a telephone receiver actuated by electric power and supplying acoustic power to the surrounding air or quartz crystals that produce electric power from mechanical power (Termium Plus)

Treatment
A treatment is more extensive than a synopsis, usually twenty or fifty pages, with a pictorial description and the actual visual possibilities of the suggested action (Termium Plus)

Tree Structure
A type of data structure in which each element is attached to one or more elements directly beneath it: the connections among elements are called “branches.” Trees are often called “inverted trees” because they are normally drawn with the “root” at the top.

The elements at the very bottom of an inverted tree (that is, those that have no elements below them) are called “leaves.” Inverted trees are the data structures used to represent hierarchical file structures. The leaves are files, and the other elements above the leaves are directories (http://webopedia.com/TERM/t/tree_structure.html).

Trigger
Level of tension above or beyond which a device will respond (translation)

Turing test
An "imitation game" devised by Alan Turing which is used to determine if a computer is “thinking”

In interrogator attempts to discover which of two respondents is a person and which is a computer by engaging in thoughtful conversation (Termium Plus)

Tweening
Short for “in-betweening,” the process of generating intermediate frames between two images to give the appearance that the first image evolves smoothly into the second image, tweening is a key process in all types of animation, including computer animation. Sophisticated animation software enables you to identify specific objects in an image and define how they should move and change during the tweening process (http://webopedia.com/TERM/t/tweening.html).

Unified Modeling Language (UML)
A general-purpose notational language for specifying and visualizing complex software, especially large, object-oriented projects, UML builds on previous notational methods such as Booch, OMT and OOSE (http://webopedia.com/TERM/U/UML.html).

URL (Uniform Resource Locator)
The global address of documents and other resources on the World Wide Web, the first part of the address indicating what protocol to use and the second part specifying the IP address or the domain name where the
resource is located (http://www.webopedia.com/TERM/U/URL.html).

User-friendly
Refers to anything that makes it easier for novices to use a computer. Menu-driven programs, for example, are considered more user-friendly than command-driven systems. Graphical user interfaces (GUIs) are also considered user-friendly. Online help systems are another feature of user-friendly programs.

Although the term user-friendly represents an important concept, it has been so overused that it has become something of a cliché (http://webopedia.com/TERM/u/user_friendly.html).

Vector graphics
Vector graphics (also called geometric modeling or object-oriented graphics) is the use of geometrical primitives such as points, lines, curves and polygons, which are all based upon mathematical equations, to represent images in computer graphics. It is used in contrast to the term "raster graphics," which is the representation of images as a collection of pixels and is used as the sole graphic type for actual photographic images (http://en.wikipedia.org/wiki/Vector_graphics).

Vector images
Vector images are made up of many individual, scalable objects. These objects are defined by mathematical equations rather than pixels, so they always render at the highest quality. Objects may consist of lines, curves and shapes with editable attributes such as colour, fill and outline. Changing the attributes of a vector object does not effect the object itself. You can freely change any number of object attributes without destroying the basic object. An object can be modified not only by changing its attributes, but also by shaping and transforming it using nodes and control handles (http://graphicssoft.about.com/od/aboutgraphics/a/bitmapvector_2.htm).

Vectorization
Conversion of a bitmap image into an image composed of vectors (i.e. directed line segments) (Termium Plus)

Virtual community, e-community or online community
A group of people who primarily interact via communication media such as e-mail or chat rather than face to face. Virtual communities have also become a supplemental form of communication between people who know each other primarily in real life. Many means are used in social software, separately or in combination, including text-based chatrooms and forums that use voice, video text or avatars. The agglomeration of all online communities is sometimes called the metaverse (http://en.wikipedia.org/wiki/Virtual_community).

Virtual reality (VR)
A technology which allows a user to interact with a computer-simulated environment, be it a real or imagined one. Most current virtual reality environments are primarily visual experiences, displayed either on a computer screen or through special or stereoscopic displays, but some simulations include additional sensory information, such as sound through speakers or headphones. Some advanced haptic systems now include tactile information, generally known as force feedback, in medical and gaming applications. Users can interact with a virtual environment or a virtual artifact (VA) either through the use of standard input devices such as a keyboard and mouse or through multimodal devices such as a wired glove, the Polhemus boom arm and omnidirectional treadmill. The simulated environment can be similar to the real world: for example, simulations for pilot or combat training, or it can differ significantly from reality, as in VR games. In practice, it is currently very difficult to create a high-fidelity virtual reality experience, due largely to technical limitations on processing power, image resolution and communication bandwidth. However, those limitations are expected to eventually be overcome as processor, imaging and data communication technologies become more powerful and cost-effective over time (http://en.wikipedia.org/wiki/Virtual_reality#Terminology).
Virtual Reality Markup Language (VRML)
Pronounced ver-mal, VRML is a specification for displaying 3-dimensional objects on the World Wide Web. You can think of it as the 3-D equivalent of HTML. Files written in VRML have a.wrl extension (short for world). To view these files, you need a VRML browser or a VRML plug-in to a web browser.

VRML produces a hyperspace (or a world), a 3-dimensional space that appears on your display screen. And you can figuratively move within this space. That is, as you press keys to turn left, right, up or down, or go forwards or backwards, the images on your screen will change to give the impression that you are moving through a real space (http://webopedia.com/TERM/V/VRML.html).

Web services
Sometimes called application services, web services are a standardized way of integrating Web-based applications using the XML, SOAP, WSDL and UDDI open standards over an Internet protocol backbone. XML is used to tag the data, SOAP is used to transfer the data, WSDL is used for describing the services available and UDDI is used for listing what services are available. Used primarily as a means for businesses to communicate with each other and with clients, web services allow organizations to communicate data without intimate knowledge of each other's IT systems behind the firewall.

Unlike traditional client/server models, such as a web server/web page system, web services do not provide the user with a GUI. Web services instead share business logic, data and processes through a programmatic interface across a network. The applications interface, not the users. Developers can then add the web service to a GUI (such as a web page or an executable program) to offer specific functionality to users.

Web services allow different applications from different sources to communicate with each other without time-consuming custom coding and, because all communication is in XML, web services are not tied to any one operating system or programming language. For example, Java can talk with Perl, and Windows applications can talk with UNIX applications.

Web services do not require the use of browsers or HTML.
(http://webopedia.com/TERM/W/Web_services.html)

Welcome or home page
In any hypertext system, including the WWW, a document intended to serve as an initial point of entry to a web or related documents (Termium Plus)

Whiteboarding, smartboarding
Use of an electronic version of a dry-erase board that enables learners in a virtual classroom to view what a presenter writes or draws (Termium Plus)

Wide shot
A shot in which characters and surroundings are shown at a considerable distance from the camera (Termium Plus)

Window
(1) An enclosed, rectangular area on a display screen; most modern operating systems and applications have graphical user interfaces (GUIs) that let you divide your display into several windows. Within each window, you can run a different program or display different data.

Windows are particularly valuable in multitasking environments, which allow you to execute several programs at once. By dividing your display into windows, you can see the output from all the programs at the same time. To
enter input into a program, you simply click on the desired window to make it the foreground process.

GUIs, such as the one supported by the Apple Macintosh or Windows, enable you to set the dimensions and position of each window by moving the mouse and clicking appropriate buttons. Windows can be arranged so that they do not overlap (tiled windows) or so they do overlap (overlaid windows). Overlaid windows (also called cascading windows) resemble a stack of pieces of paper lying on top of one another; only the topmost window is displayed in full. You can move a window to the top of the stack by positioning the pointer in the portion of the window that is visible and clicking the mouse buttons. This is known as “popping.” You can expand a window to fill the entire screen by selecting the window’s zoom box.

In addition to moving windows, changing their size, popping and zooming them, you can also replace an entire window with an icon (this is sometimes called “minimizing.”) An icon is a small picture that represents the program running in the window. By converting a window into an icon, you can free up space on the display screen without erasing the window entirely. It is always possible to reconvert the icon into a window whenever you want.

(2) A window can also be a logical view of a file. By moving the window, you can view different portions of the file (http://webopedia.com/TERM/w/window.html).

**Wired glove**

A wired glove is a glove-like input device for virtual reality environments. Various sensor technologies are used to capture physical data such as bending of fingers. Often a motion tracker, such as a magnetic tracking device or inertial tracking device, is attached to capture the global position/rotation data of the glove. These movements are then interpreted by the software that accompanies the glove, so any one movement can mean any number of things. Gestures can then be categorized into useful information, such as to recognize Sign Language or other symbolic functions.

Expensive high-end wired gloves can also provide haptic feedback, which is a simulation of the sense of touch. This allows a wired glove to also be used as an output device.

Traditionally, wired gloves have only been available at a huge cost, with the finger bend sensors and the tracking device having to be bought separately.

One of the first wired gloves available to home users was the Nintendo Power Glove. This was designed as a gaming glove for the Nintendo Entertainment System. It had a crude tracker and finger bend sensors, plus buttons on the back. In 2001, Essential Reality made a similar attempt at a cheap gaming glove, this time for the PC: the P5 Glove. However, this peripheral never really became popular among gamers. Ironically, even specialized stores are now selling the older and less well-performing Power Glove for a higher price than the more sophisticated P5 Glove.

Wired gloves are often called "datagloves" or "cybergloves," but these two terms are trademarks, belonging to Sun Microsystems (which acquired the patent portfolio of VPL Research Inc. in February of 1998) and Immersion Corporation (which acquired Virtual Technologies, Inc. and its patent portfolio in September of 2000) respectively. An alternative to wired gloves is to use a camera and computer vision to track the 3D pose and trajectory of the hand, at the cost of tactile feedback (http://en.wikipedia.org/wiki/Wired_glove).

**Wireless Application Protocol (WAP)**

A secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, two-way radios, smartphones and communicators.

WAP supports most wireless networks. These include CDPD, CDMA, GSM, PDC, PHS, TDMA, FLEX, ReFLEX, iDEN, TETRA, DECT, DataTAC and Mobitex.
WAP is supported by all operating systems. Ones specifically engineered for handheld devices include PalmOS, EPOC, Windows CE, FLEXOS, OS/9 and JavaOS.

WAPs that use displays and access the Internet run what are called microbrowsers—browsers with small file sizes that can accommodate the low memory constraints of handheld devices and the low-bandwidth constraints of a wireless-handheld network.

Although WAP supports HTML and XML, the WML language (an XML application) is specifically devised for small screens and one-hand navigation without a keyboard. WML is scalable from two-line text displays up through graphic screens found on items such as smart phones and communicators. WAP also supports WMLScript. It is similar to JavaScript but makes minimal demands on memory and CPU power because it does not contain many of the unnecessary functions found in other scripting languages.

Because WAP is fairly new, it is not a formal standard yet. It is still an initiative that was started by Unwired Planet, Motorola, Nokia and Ericsson (http://webopedia.com/TERM/W/WAP.html).

**Workflow**

The defined series of tasks within an organization to produce a final outcome: sophisticated workgroup computing applications allow the definition of different workflows for different types of jobs. For example, in a publishing setting, a document might be automatically routed from writer to editor to proofreader to production. At each stage in the workflow, one individual or group is responsible for a specific task. Once the task is complete, the workflow software ensures that the individuals responsible for the next task are notified and receive the data they need to execute their stage of the process (http://www.webopedia.com/TERM/w/workflow.html).

**Z-order**

The term "Z-order" refers to the order of objects along the Z-axis. In coordinate geometry, X typically refers to the horizontal axis (left to right), Y to the vertical axis (up and down), and Z to the axis perpendicular to the other two (forward or backward). One can think of the windows in a GUI as a series of planes parallel to the surface of the monitor. The windows are therefore stacked along the Z-axis, and the Z-order information thus specifies the front-to-back ordering of the windows on the screen (http://en.wikipedia.org/wiki/Z-order).