



Glossary of Distance Education Terminology

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Why a Glossary?

As distance education becomes more prominent on the university campus, more and more instructors and students are becoming involved in both the technical and educational aspects of distance education. It is important to understand distance education related terminology if the instruction and delivery is to be understood by all persons involved.

The Glossary

Analog: A signal that is received in the same form in which it is transmitted, while the amplitude and frequency may vary.

Amplitude: The amount of variety in a signal. Commonly thought of as the height of a wave.

American Standard Code for Information

Interexchange (ASCII): A computer language used to convert letters, numbers, and control codes into a digital code understood by most computers.

Asynchronous: Communication in which interaction between parties does not take place simultaneously.

Asynchronous Transfer Mode (ATM): A high bandwidth, low delay, packet-like switching and multi-plexing technique.

Audio Bridge: A device used in audioconferencing that connects multiple telephone lines.

Audioconferencing: Voice only connection of more than two sites using standard telephone lines.

Backbone: A primary communication path connecting multiple users.

Band: A range of frequencies.

Bandwidth: Information carrying capacity of a communication channel.

Binary: A computer code using only ones and zeros.

Bit: Abbreviation for a single binary digit.

Byte: A single computer word, generally eight bits.

Browser: Software that allows you to find and see information on the Internet.

Central Processing Unit (CPU): The component of a computer in which data processing takes place.

Channel: The smallest subdivision of a circuit, usually with a path in only one direction.

Codec (COder/DECoder): Device used to convert analog signals to digital signals for transmission and reconvert signals upon reception at the remote site while allowing for the signal to be compressed for less expensive transmission.

Compressed Video: Television signals transmitted with much less than the usual bit rate. The lower bit rates typically involve some compromise in picture quality, particularly when there is rapid motion on the screen.

Compression: Reducing the amount of visual information sent in a signal by only transmitting changes in action.

Computer Assisted Instruction (CAI): Teaching process in which a computer is utilized to enhance the learning

environment by assisting students in gaining mastery over a specific skill.

Cyberspace: The nebulous "place" where humans interact over computer networks. Coined by William Gibson in *Neuromancer*.

Desktop Videoconferencing: Videoconferencing on a personal computer.

Dial-Up Teleconference: Using public telephone lines for communication links among various locations.

Digitize: Converting an analog signal into a series of ones and zeros, i.e., into a digital format.

Distance Education: The process of providing instruction when students and instructors are separated by physical distance, and technology, often in tandem with face-to-face communication, is used to bridge the gap.

Distance Learning: The desired outcome of distance education.

Download: Using the network to transfer files from one computer to another.

Echo Cancellation: The process of eliminating the acoustic echo in a videoconferencing room.

Electronic Mail (E-mail): Sending messages from one computer user to another.

Facsimile (FAX): System used to transmit textual or graphical images over standard telephone lines.

Fiber Optic Cable: Glass fiber that is used for laser transmission of video, audio, and/or data.

File Transfer Protocol (FTP): A protocol that allows you to move files from a distant computer to a local computer using a network like the Internet.

Frequency: The space between waves in a signal. The amount of time between waves passing a stationary point.

Frequently Asked Questions (FAQ): A collection of information on the basics of any given subject, often used on the WWW.

Full Motion Video: Signal which allows transmission of complete action taking place at the origination site.

Fully Interactive Video: (*Two way interactive video*) Two sites interact with audio and video as if they were co-located.

Home Page: A document with an address (URL) on the WWW maintained by a person or organization which contains pointers to other pieces of information.

Host: A network computer that can receive information from other computers.

Hyper Text Markup Language (HTML): The code used to format a home page and used to access documents over the WWW.

Hypertext Transfer Protocol (HTTP): The protocol used to signify an Internet site is a WWW site, i.e., HTTP is a WWW address.

Hypertext: A document which has been marked up to allow a user to select words or pictures within the document, click on them, and connect to further information.

Instructional Television Fixed Service (ITFS): Microwave-based, high-frequency television used in educational program delivery.

Integrated Services Digital Network (ISDN): A telecommunications standard allowing communications channels to carry voice, video, and data simultaneously.

Interactive Media: Frequency assignment that allows for a two-way interaction or exchange of information.

Internet: An international computer network.

Internet Protocol (IP): The international standard for addressing and sending data via the Internet.

Litserv: An e-mail program that allows multiple computer users to connect onto a single system, creating an on-line discussion.

Local Area Network (LAN): Two or more local computers that are physically connected.

Microwave: Electromagnetic waves that travel in a straight line and are used to and from satellites and for short distances (i.e., up to 30 miles).

Modem: A piece of equipment that allows computers to interact with each other via telephone lines by converting digital signals to analog for transmission along analog lines.

Mosaic: An example of browser software that allows WWW use.

Multimedia: Any document which uses multiple forms of communication, such as text, audio, and/or video.

Multi-Point Control Unit (MCU): Computerized switching system which allows point-to-multipoint videoconferencing.

Netscape: An example of browser software that allows you to design a home page and to browse links on the WWW.

Network: A series of points connected by communication channels in different locations.

On-Line: Active and prepared for operation. Also suggests access to a computer network.

Origination Site: The location from which a teleconference originates.

Point of Presence (POP): Point of connection between an interexchange carrier and a local carrier to pass communications into the network.

Point-to-Point: Transmission between two locations.

Point-to-Multipoint: Transmission between multiple locations using a bridge.

PPP: A software package which allows a user to have a direct connection to the Internet over a telephone line.

Protocol: A formal set of standards, rules, or formats for exchanging data that assures uniformity between computers and applications.

Satellite TV: Video and audio signals are relayed via a communication device that orbits around the earth.

Serial Line Internet Protocol (SLIP): Allows a user to connect to the Internet directly over a high speed modem.

Server: A computer with a special service function on a network, generally receiving and connecting incoming information traffic.

Slow Scan Converter: Transmitter/receiver of still video over narrow band channels. In real time, camera subjects must remain still for highest resolution.

Synchronous: Communication in which interaction between participants is simultaneous.

T-1 (DS-1): High speed digital data channel that is a high volume carrier of voice and/or data. Often used for compressed video teleconferencing. T-1 has 24 voice channels and transmits 1.544 mbps.

T-3 (DS-3): A digital channel which communicates at a significantly faster rate than T-1 (i.e., 45 mbps).

Telecommunication: The science of information transport using wire, radio, optical, or electromagnetic channels to transmit and receive signals for voice or data communications using electrical means.

Teleconferencing: Two way electronic communication between two or more groups in separate locations via audio, video, and/or computer systems.

Transmission Control Protocol (TCP): A protocol which makes sure that packets of data are shipped and received in the intended order.

Transponder: Satellite transmitter and receiver that receives and amplifies a signal prior to re-transmission to an earth station.

Video Teleconferencing: A teleconference including two way video.

Uniform Resource Locator (URL): The address of a homepage on the WWW.

Uplink: The communication link from the transmitting earth station to the satellite.

World Wide Web (WWW): A graphical hypertext-based Internet tool that provides access to homepages created by individuals, businesses, and other organizations.

Note

The following resources were reviewed and consulted in the preparation of this publication:

- Glossary: <http://152.30.11.86/DEER/Houghton/Committees/distancelearn/GlossaryDistEd.html>
- Glossary of Terms. <http://www.ctcnet.com/tips/glossary.htm>
- Newton, H. (1991). Newton's telecom dictionary. Telecom Library Inc: New York.
- Reed, J. (1996). Videoconferencing for learning glossary. <http://www.kn.pacbell.com/wired/vidconf/glossary.html>.
- The EdWeb Dictionary. <http://k12.cnidr.org:90/dic.html>
- Willis, B. (Ed.) (1994). Distance education: Strategies and tools. Educational Technology Publications, Inc.: Englewood Cliffs, N. J.

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