**Acceptable Use Policy**
A statement of the procedures, rights and responsibilities of a user of a technology solution and any disciplinary procedures that will be enforced for misuse of the technology.

**Active Learning**
The learner interacts with the teacher, author, or the learning programme to construct his/her own meaning. It is the child's individual or meta-cognitive act of observation, hypothesis generation and testing, and reflection.

**Administrative Software**
Computer programs that are used to expedite the storage and use of education data for efficient functioning in education settings. Examples are student records systems, personnel records systems, and transportation mapping packages.

**Analog**
The representation of information by continuous wave forms, frequencies or bandwidth that vary as the source varies. Information represented and transmitted in the form of a continuous electromagnetic wave (contrast with digital).

**Application Software**
Computer programs that are used to accomplish specific tasks not related to the computer itself. Examples are word processors, spreadsheets, and accounting systems.

**Artificial Intelligence (AI)**
Computer programs written that attempt to emulate the decision-making capabilities of the human mind.

**ASCII**
American Standard Code for Information Interchange. An eight-eleven standardized binary code used by most teletypewriters and display terminals.
Assessment
A broader term than paper and pencil testing that includes all types of activities that can be used to have learners demonstrate their ability to perform.

Asynchronous Communication
A time-delayed communication through some type of recording device. It is replayed at the convenience of the user. An example is e-mail. Communication in which interaction between sender and receiver does not take place simultaneously (e.g. e-mail or fax).

Authentic Performance Assessment
The major goal of authentic performance assessment is to assess the ability to apply knowledge to solve real-life problems. These types of assessments, at least insofar as general descriptions are concerned, approach the learner as more active. The student must take considerable control over the assessment through planning and applying knowledge in perhaps new and different ways. Proponents of these methods claim, too, that they reach more complex cognitive skills.

Authoring Software
High-level computer programs designed for creating computer-based training, interactive presentations, and multimedia. Commands are often presented as simple terms, concepts, and icons. Authoring software translates these commands into programming code.

Bandwidth
The amount and rate of transmission capability of an electronic device. This is the transmitted signal in different ranges of frequencies (highest to lowest), measured in cycles per second (hertz) for analog signals and bits per second (bauds) for digital signals. Wires and cables are used mostly for voice communications, which require a narrow bandwidth. It is the range of frequencies that can be carried by a telecommunications carrier (e.g. telephone lines, satellite transmissions, and computer-based systems).

Baud
A unit measuring the digital transmission speed of any device. One baud equals one bit per second (bps). 300 baud is low while 56,000 baud is faster. It is used in binary telecommunications transmission.
**Bit**
The smallest unit of information a computer can use. A bit is represented as a "0" or a "1" (also "on" or "off"). A group of 8 bits is called a byte. Bits are used to measure the speed of digital transmission systems. Speeds are commonly expressed in kilobits (KBPS), megabits (MBPS), and gigabits (GPS) per second. In an electrical communication system, a bit is typically represented by the presence or absence of a pulse.

**Broadband**
A term often used to describe a range of frequencies wider than that required for just voice communications. Also, a term used to describe systems and equipment with wide bandwidth that can carry these ranges of frequency.

**Browser**
Software that lets you locate, view, and retrieve information on the World Wide Web using a graphical interface.

**Bulletin Board System (BBS)**
A network-based system that is used to store and access messages, programs or data by anyone having access to the system.

**Byte**
The amount of memory space needed to store one number, letter or symbol in a computer.

**Cables**
The collections of wires twined together to connect peripherals to the computer system unit.

**CAI**
Computer-Assisted Instruction. Instruction mediated by computer in which the system allows for remediation based on answers but not for a change in the underlying program structure.

**Carrier**
A signal with known characteristics-frequency, amplitude, and phase-that is altered or modulated in order to carry information. Changes in the carrier are interpreted as information.
**Case Study Method**
Students have to deal with a real or imagined problem situation. They study the case, then identify the general principles that underlie the case. The students then test these principles on other case examples for verification of their general validity.

**CBT**
Computer-Based Training. Instruction primarily delivered by computer, with a more complicated branching program of remediation and answering. (See Hypertext media).

**CD-ROM**
Compact Disc-Read Only Memory. A round, silver plastic disk that comes with massive amounts of information embedded and ready to be used. Unlike diskettes, any type of computer with a CD-ROM drive can read CD-ROM disks.

**Central Processing Unit (CPU)**
The brain of the computer that processes instructions and manages the flow of information through a computer system.

**Client/Server Network**
A configuration where all users store their files on a central computer, and files are accessed directly from where they are stored on the central computer. The central computer is the server, and the client is the computer that can access the information from the central computer.

**CMC**
Computer-Mediated Communication. A typed communication method that offers private but narrow channel of communication.

**Codec**
An electronic device that converts analog video signals into a digital format for transmission, and vice versa. The name is abbreviated from "coder-decoder" or "compressor-decompressor" when compression is also involved. The codec is the electronic black box needed to make the conversion.

**Cognitive Apprenticeship**
A term for the instructional process that teachers provide and support students with scaffolds as the students develop cognitive strategies. It permits peers to learn through their interactions, to build stories about common experiences, and to share the knowledge-building experiences with the group.
Cognitive Learning Theories
Focus on explaining the development of cognitive structures, processes, and rep-resentations that mediate between instruction and learning.

Cognitive Strategies
An individual’s skills for “learning how to learn.”

Collaborative Learning or Cooperative Learning
Students of varying abilities and interests work together in small groups to solve a problem, complete a project, or achieve a common goal.

Compressed Video
Video images in digital form that allow redundant information to be eliminated, thereby reducing the amount of bandwidth needed for their transmission. The amount of compression (i.e. bandwidth determines the picture quality).

Compression
A technique to remove all redundant data from video images or computer files for the purpose of easier storage and transmittal. Analogous to condensed juice. All of the pulp (noise) and water is removed. The reminder is frozen and shipped. At the desired moment, the signal is decompressed for playback.

Computer-based Instruction
Computer programs that teach or reinforce concepts and skills.

Computer Conferencing
Interactive sessions between networked computers whereby data, documents, and/or video and audio are shared. The term encompasses both data conferencing and desktop video conferencing. Web chat, whiteboards, and web-based conferencing may be used in computer conferencing.

Computer Type
The classification of a computer according to its storage and computing capacity, the number of users that can be supported, the variety of input and output options, and the physical size. Three major types of computers are mainframe computers, minicomputers, and microcomputers.

Constructivism
The learner constructs knowledge; learning is a personal interpretation of experience; learning is active, collaborative, and situated in real-world contexts; and assessment of learning is integrated within the learning context itself.
**Contestation**
A method of line control in which the terminals request to transmit. If the channel in question is free, transmission goes ahead; if it is not free, the terminal will have to wait until it becomes free. The computer may build up the queue of contention requests, and this can either be in a prearranged sequence or in the sequence in which the requests are made.

**Courseware**
Instructional materials in a complete mediated format. May refer to a single instructional component, such as a computer-assisted instruction program, or a multiple instructional entity, such as guidebooks, videodiscs, ad computer-assisted instruction.

**Criterion-Referenced Tests**
Define a learner's performance in terms of specific competencies or objectives mastered.

**CSCL**
Computer-Supported Collaborative Learning. Area of work that focuses on socially oriented theories of learning using computer technologies to support collaborative methods of instruction.

**Curriculum (plural curricula)**
A plan of instruction that details what students are to know, how they are to learn it, what the teacher's role is, and the context in which learning and teaching will take place.

**Curriculum frameworks**
Describe what should be taught in order for students to acquire certain skills.

**Cybernetic Learning Environment**
Emphasizes mutual interaction between the learning system and the learner-interaction in which the learner negotiates control of the learning experience with the system and the system attempts to respond intelligently to the explicit and implicit needs of the learner by adjusting to a changing multidimensional portrait.

**Data Base Software**
The computer programs that allow the storage of large amounts of information and give the capacity to search, retrieve, sort, revise, analyze and order data.
quickly and efficiently. There are two types of databases, flat file data-bases and relational databases.

**Declarative Knowledge**
Requires a learner to recall in verbatim, paraphrased, or summarized form facts, lists, names, or organized information. Also described as "knowing that".

**Dedicated Lines**
Telephone lines leased for a specific term between specific points on a network usually to provide certain special services not otherwise available on the regular or public-switched network.

**Design**
A systematic or intensive planning and ideation process prior to the development of something or the execution of some plan in order to solve a problem.

**Desktop Videoconferencing**
Videoconferencing on a personal computer equipped with a fast Internet connection (at least 28.8 Kbps modem), a microphone, and a video camera. There can be two-way or multi-way video and audio depending upon the hardware and software of participants. Most appropriate for small groups or individuals.

**Digital**
Data is represented as discrete units (on/off) rather than continuous as in analog signals. All information is encoded as bits of 1’s and 0’s that represent on and off states. Digital signals are always in a state of on/off. They are less susceptible to interference and noise and can be stored and manipulated by a computer. It is contrasted with analog. Once data is digitized, it can be stored and changed. Information stored in the form of bits (on/off signals) and which can be stored and transmitted via electronic media.

**Directed Instruction**
A teaching and learning model based on behavioural and cognitive theories; students receive information from teachers and do teacher-directed activities.

**Discovery Sequence**
Learners often take on more of the processing responsibilities, engaging cognitive strategies as well as domain knowledge.
**Disk**
A round plastic magnetic device on which computer programs and data are saved. There are three main types of disks: hard disks (maintained inside the computer), diskettes (a.k.a. floppy disks), and compact disks.

**Disk Drive**
A device that reads the information contained on a disk. The drive may be permanently installed inside the computer (hard disk drive) or contain a slot for entering the disk from outside the computer (floppy disk drive or compact disk drive).

**Diskette**
A thin, plastic flexible disk on which computer programs and data can be saved outside of the computer. The two types of diskettes are 3.5-inch disks that come in a hard plastic case and 5.25 inch disks that come in thin pliable (floppy) cardboard-like cases.

**Distance Education**
A subset of distance learning that includes evaluation by distance educators and two-way communication, which usually includes the structuring of media content and use by the educator.

**Distance Learning**
Using some electronic means (e.g. modems, satellite transmissions) to make possible teaching and learning at separate sites.

**Distributed Learning**
A system and process that uses a variety of technologies, learning methodologies, online collaboration, and instructor facilitation to achieve applied learning results not possible from traditional education in a truly flexible, anytime/anywhere fashion.

**Downlink**
A television dish used to capture signals off a satellite transponder for distribution in a local area.

**Download**
The process of transferring (copying) data files from a main host computer to a smaller computer. It is the opposite to upload.
Drill and Practice
An instructional software program that presents items for students to work (usually one at a time) and gives feedback on correctness; designed to help users remember isolated facts or concepts and recall them quickly.

Educational Technology
The combination of instructional, learning, developmental, managerial, and other technologies as applied to the solution of educational problems.

Electronic Mail
Email (electronic mail) is messages stored and sent via a computer system, transmitted across networks typically accessible only by the addressee.

Electronic Mail (e-mail) Software
The computer programs that facilitate computer-to-computer communications among users in any location.

Ethical Standards
Guidelines for the appropriate use of the technology solution and the maintenance of privacy of the contents of the system. These are generally specified in an Acceptable Use Policy, particularly where there is concern about the security of the system or the availability of objectionable materials obtained through the system.

Experiential Learning
A learning situation is set up which presents a problem or a complex task for the learners to deal with. The learners are encouraged to draw general conclusions and establish general principles that may explain or predict across a range of similar situations.

Expert
An individual who has experience, knowledge, and expertise relative to the context, learner, and instructional task.

Expert Systems
Knowledge databases that are sorted and selected by an algorithm programmed with a set of rules derived from an expert. The systems help to formulate solutions to problems. In education, future possibilities include the development of expert systems to aid in making instructional design decisions based on current databases of instructional research. Therefore, an optimal instructional strategy can be recommended for implementation.
**Fiber Optic Cable**
Hair thin, flexible glass rods that use light signals to transmit information in either analog or digital formats. Fiber optic cable has much higher capacity than copper or coaxial cable, and is not as subject to interference or noise. Fiber optic cable has the bandwidth to accommodate high-speed, multimedia networking.

**File**
A block of information stored on a magnetic media such as a floppy or hard disk or a tape. A file may contain a computer program, a document, or a collection of data.

**File Server**
A special computer that stores dedicated data such as pictures, slides, or video clips. It can be accessed by other computers to retrieve these data.

**Firewall**
A firewall is a security system for computers. Computers 'behind' the firewall can access other computers on the Internet but Internet computers are prevented from accessing any computer behind the firewall.

**Floppy Disk**
See Diskette.

**Flowchart**
Visual representation of procedures for performing a task.

**Formative Evaluation**
Evaluation of materials to determine the weakness in instruction so that revisions can be made to make instruction more effective and efficient.

**Frame**
Two complete scans of the video screen at 1/30 second. A frame is composed of two fields (each 262 lines). A single frame is a standard CAV videodisc reference point. There can be as many as 54,000 addressable frames on one side of a CAV videodisc.

**Frequently Asked Questions (FAQs)**
A listing of questions typically asked along with the answers to the questions. This list is prepared to help novice users as they begin to use computers or software.
**FTP**

File Transfer Protocol. This is a protocol to allow the transfer of files from one computer to another over a network. One computer will run an ftp server, which allows people on other computers to run ftp client programs to connect to it, upload, and download files.

**Functional Specifications**

A document that states in detail what a new (or upgraded) computer system should be expected to do, i.e., what services it delivers to those who will use and maintain it. This listing of a computer system's capabilities can be compared to what can be bought from a commercial vendor or built by developers.

**Functions**

The tasks or actions that software is intended to perform.

**Funding Proposal**

A proposal to a funding agency which contains the following elements: a need or needs to be addressed, a vision or solution to address the need, goals and objectives, a plan to achieve the objectives and goals, a budget and timelines, and a plan for evaluating progress in achieving the goals.

**Gantt Chart**

A diagram that shows tasks and deadlines necessary for completing a project.

**Generative Instruction**

Those approaches in which learners encounter the content in such a way that they are encouraged or allowed to construct their own idiosyncratic meanings from the instruction by generating their own educational goals, organization, elaborations, sequencing and emphasis of content, monitoring of understanding, and transfer to other contexts.

**GIF**

Graphics Interchange Format. A standard format for compression of images. Images on web pages are commonly stored in the GIF or JPEG formats.

**Gigabyte**

One million bytes.

**Goals**

General statements of intent. From goals, objectives are derived.
Groupware
A computer software program that allows the same information to be shared among several computers simultaneously. With some applications, users can see each other and from their own computers, add to or edit text and graphics in a single document.

Group Investigation
Each student in a group selects a topic, researches it, and then shares his or her findings with the group. The topics are then combined into a joint group report.

Hard Drive (a.k.a., hard disk drive)
A device used to "permanently" store information within a computer, such as programs and data.

Hardware
The computer equipment used to do the work (i.e., operate software programs). It consists of the items you can touch, such as the computer case and the peripherals (e.g., monitor, keyboard, mouse) that are attached to the computer.

Higher-order thinking
Understanding difficult concepts and applying sometimes conflicting information to solve a problem (that may have more than one correct answer)

HTML
Hypertext Markup Language. Coding used to publish documents on the World Wide Web that allows links to information in files on any computer connected to the Internet.

Hyperlink
A connection among documents in a hypermedia or hypertext format.

Hypermedia
An approach to information storage and retrieval that provides multiple linkages among elements. It allows the learner to navigate easily from one piece of information to another. The storage and retrieval of text, images, audio, and video in computer (digital) form.

Hypertext
The linking of information together by highlighted key words that have been marked up creating paths through related material from different sources such as footnotes and encyclopedias. It is the ability to present connected documents.
**Icon**
A symbol displayed on the computer screen that represents a command or program. Icons help make computer operating systems and applications easier to use.

**ICTs**
Information and communication technologies.

**Implementation Project Manager**
The person who directs the installation and implementation of a technology solution.

**In-service Teacher Education**
Professional development training provided to certified practising teachers.

**Instruction**
Intentional facilitation of learning toward identified learning goals.

**Instructional Design**
The systematic and reflective process of translating principles of learning and instruction into plans for instructional materials, activities, information resources, and evaluation.

**Instructional Development**
A self-correcting, systems approach that seeks to apply scientifically derived principles to the planning, design, creation, implementation, and evaluation of effective and efficient instruction.

**Instructional Software**
The computer programs that allow students to learn new content, practise using content already learned, and/or be evaluated on how much they know. These programs allow teachers and students to demonstrate concepts, do simulations, and record and analyze data. Often administrative applications like database programs and spreadsheets are used within the instructional context to help analyze and present information.

**Instructional Strategies**
Covers the various aspects of sequencing and organizing the information and deciding how to deliver it.
**Instructional Systems Development (ISD)**
Design models and processes for the analysis, design, development, implementation, and evaluation of instruction.

**Instructional Technology**
The systemic and systematic application of strategies and techniques derived from behaviour and physical sciences concepts and other knowledge to the solution of instructional problems.

**Integrated Learning System (ILS)**
A network that combines instructional and management software and usually offers a variety of instructional resources on several topics.

**Intellectual Skills**
Students learn not only how to recall, but also how to apply knowledge to instances not encountered during instruction.

**Intelligent CBI**
Sophisticated artificial intelligence tools that have the potential to create new models and instructional strategies for CBI (Computer-Based Instruction). Bayesian probability models provide efficient means of identifying mastery of objectives and formulating a sequence of lessons for individual students that are tailored by the programming.

**Interaction**
Exchange of information, ideas, and opinions between and among learners and teachers, usually occurring through technology with the aim of facilitating learning.

**Interface**
A general term used in the computer world to designate the hardware and associated software needed to enable one device to communicate with another or to enable a person to communicate with computers and related devices. A user interface can be a keyboard, a mouse, commands, icons, or menus that facilitate communication between the user and computer. Interface means the connection between a computer and the person trying to use it. It can also be the connections required between computer systems so that communication and exchanges of data can take place.
Internet
A worldwide network of computer networks through which people can exchange data and communications.

Internet Service Provider
A company that provides access to the Internet, such as phone companies and other commercial service providers.

ISDN
Integrated Services Digital Network. A digital phone line that can transmit data, video and voice.

IT
Information technology.

JPEG
Joint Photographic Expert Group. This is a means of compressing and storing video and high-resolution colour pictures. It is the standard for data compression of all still images.

Just in Time (JIT)
A term used to describe a system or information that is available for the user at the exact time the user needs it.

K-12
Kindergarten through the twelfth grade (secondary education).

Keyboard
A device similar to a typewriter that is used to enter information and instructions into the computer. In addition to letter keys, most keyboards have number pads and function keys that make the computer software easier to use.

LAN
Local Area Network. The linkage of computers and/or peripherals (e.g. printer) confined to a limited area that may consist of a room, building or campus that allows users to communicate and share information.

LCD
Liquid Crystal Display. A way to make letters and numbers appear on a crystal display surface as seen in pocket calculators and computers. The LCD can also project video images from an overhead projector.
**Learner-Centered Classroom**
Students are encouraged to choose their own learning goals and/or projects, based on the belief that people have a natural inclination to learn; learn better when they work on authentic tasks; benefit from interacting with diverse groups of people; and learn best when teachers understand and value difference in how each student learns.

**Learner Characteristics**
Factors in a learner's background that impact the effectiveness of their learning.

**Learner-controlled Instruction**
A mode of instruction in which one or more key instructional decisions are delegated to the learner.

**Learning**
The relative permanent change in a person’s knowledge or behaviour due to experience.

**Learning Task Analysis**
A list of goals that describe what the learners should know or be able to do at the completion of instruction and the prerequisite skills and knowledge that the learners will need in order to achieve those goals.

**Level of Interactivity**
The potential for interaction prescribed by the capabilities of videodisc hardware and external intervention.

**Listserv**
A special interest discussion group that corresponds via e-mail. A predetermined group exchange messages in an area of shared interest. A message is posted on a list server and is automatically sent to all members of the group. A listserv is different from newsgroups in that an individual must subscribe (sign on) to participate in a listserv group.

**Log On**
To initially connect to a computer.

**Mainframe Computer**
A large computer that supports many users and has the storage and computing capacity needed for large data sets. It generally stores data on large reel-to-reel magnetic tapes that require extensive physical storage space. Users of main-
frames use dumb terminals or "tubes" that have screens and keyboards to connect to the mainframe.

**Maintenance Agreement**
A contract with an outside service or agency to fix a computer system (or its components) when it breaks, or assist with upgrades to the system.

**Megabyte (MB)**
The amount of computer memory needed to store 1,048,576 characters, which is approximately equal to one novel. Megabytes are used to describe the amount of memory on a hard disk or in random access memory.

**Megahertz (MHz)**
A measure of the clock speed of a central processing unit expressed in millions of cycles per second.

**Memory**
Storage locations in the computer, in RAM or ROM.

**Metacognition**
The process of thinking about and regulating one’s own learning. Metacognitive activities include recalling/reviewing what you already know about a topic, identifying gaps in your knowledge, planning strategies to fill those gaps, assessing the relevance/importance of new information, and revising your beliefs about the topic.

**Microchip**
A silicon wafer or chip with thousands and tens of thousands of electronic components and circuit patterns.

**Microcomputer (a.k.a. Personal Computer or PC)**
A small computer that is desktop size and uses a microprocessor chip (the brains of the unit) to run the computer. Only one person generally uses it at a time, but it can be networked to provide communication with other PCs, mainframes and minicomputers. Both Macintosh and IBM-compatible computers are considered a part of this category of computers.

**Mission Statement**
A statement that outlines the vision.
Modelling
Demonstrating to a pre-service teacher or student how to do a task with the expectation that the student will copy the model. Modelling often involves talking about how to work through a task or thinking aloud.

Modem
A device that allows two computers to communicate over telephone lines. It converts digital computer signals into analog format for transmission. A similar device at the other end converts the analog signal back into a digital format that the computer can understand. The name is an abbreviation for "modulator-demodulator." This device connects the computer to a telephone line for communication with another remote computer or information network. Modems may be internal or external to the computer case. Modems are classified according to the speed with which they send and receive information.

Monitor
A device similar to a television screen that receives video signals from the computer and displays the information for the user.

Mouse
A hand-held pointing device (used on top of a desk) that gives directions to the computer and moves information around on a monitor screen.

Mud
Multi-User Dungeons/Domains. This is a virtual world in which you can interact with other participants in real time. Generally text-based, more and more visual material is being used.

Multimedia
A computer with a mixture of media such as CD-ROM, speakers, etc. Evolved from hypertext and hypermedia. It is a synthesis of computer, television, telephone, and/or fax through the computer. The integrated use and display of visual images, motion, sound, data, graphics, and text, with the user being able to interact creatively with the display.

Multimedia Systems
Include technology such as CD-ROMs and laserdiscs. This technology provides a gallery of images and programming in an accessible format. Advances in screen resolution have made possible the effective use of these applications.
**Multipoint**
Communication configuration in which several terminals or stations are connected. This differs from point-to-point, where communication is between two stations only.

**Narrowband**
Lower level frequency signals such as the telephone (3000 Hz) or radio signals (15,000 Hz). It implies a speed of 56 Kbps.

**Needs Assessment**
An evaluation of the existing environment and a description of the functions you want the technology to have and the needs you hope technology will meet.

**Needs Statement**
A description of the functional needs, technical requirements and security and ethical standards that need to be met by a technology solution.

**Negative Transfer**
The application of prior knowledge to situations in which it is not applicable.

**Netiquette**
This is the etiquette used during communications on the Internet.

**Network**
A group of computers connected to each other to share computer software, data, communications and peripherals. Also, the hardware and software needed to connect the computers together.

**One-way Video**
A video signal is received at a field site. The student can see the instructor but the instructor cannot see the student. There is two-way audio (telephone) between the instructor and the students at field-sites. Students can communicate via a telephone bridge among the sites and between the instructor and sites.

**Online**
The status of being connected to a computer or having information available through the use of a computer.

**Operating System Software**
The electronic instructions that control the computer and run the programs. This software is generally specific to a type of computer.
Optical Fiber
A thin, flexible glass fiber the size of a human hair that can transmit light waves capable of carrying vast amounts of information.

P-12
Pre-kindergarten through the twelfth grade.

Packet Switching
A technique of switching digital signals with computers wherein the signal stream is broken into packets and reassembled in the correct sequence at the destination.

Paradigm
An overall concept accepted by most people in an intellectual community about a complex process or ideas such as "school".

Pedagogical
Of, relating to, or befitting a teacher or education, especially with regard to a process of learning.

Peer-to-peer Network
A configuration where people store their files on their own computers, and anyone on the network can access the files stored on the other networked computers.

Performance Assessments
Testing complex, higher-order knowledge and skills in the real-world context in which they are actually used, generally with openended tasks that require substantial time to complete.

Performance Objective
A detailed description of what students will be able to do when they complete a unit of instruction.

Performance Technology
Comprises instructional technology and incorporates the design of noninstructional solutions to human performance problems.

Peripheral
A device that is attached to a computer, such as a monitor, keyboard, mouse, modem, CD-ROM, printer, scanner, and speakers.
Physical Security
Measures that must be taken to prevent theft, vandalism, and other types of harm to the technology equipment.

Platform
The computer hardware and operating system software that runs application software.

Portfolio Assessment
A portfolio is defined as a purposeful collection of student work that exhibits to the student and others the student's efforts, progress, or achievement in a given area. This collection must include 1) student participation in selection of portfolio content, 2) the criteria for selection, 3) the criteria for judging merit, and 4) evidence of student self-reflection. Portfolios, even more so than other forms of performance assessment, call on the learner to be highly involved in planning the entries, choosing what to include, and providing the rationale behind those decisions. Portfolios thus attempt not only to assess the end products, but to some extent, the process that went into creating them as well.

Pre-service Teacher Education
Initial education or preparation of individuals prior to their being certified and becoming practising teachers in schools.

Printer
A device that translates signals from a computer into words and images onto paper in black and white or colour. Printer types include dot matrix, ink jet, laser, impact, fax, and pen and ink devices.

Problem-solving
Refers to a learned capability involving selection and application of multiple rules.

Product Evaluation
Refers to the assessment of instructional materials that have been recently produced and have some potential use in other settings.

Project-based Learning
Each group is assigned a project, or chooses one. They collaborate to complete the project, detailing their basic goals and objectives, timeline, budget, etc.
**Project Management Software**
Software programs that provide tools to help manage projects, such as integrated calendars, report generators, scheduling, charting, tracking, prioritizing, etc.

**Project Team**
The group of persons responsible for carrying out the successful implementation of the technology solution.

**Protocol**
A formal set of rules or procedures by which computers communicate with each other and transfer information. Standard protocols allow different types of computers and software programs to communicate with each other. Protocols are also the set of standards and rules that let networked computers communicate or share information, such as Ethernet or token ring.

**Psychomotor Skills**
Coordinated muscular movements that are typified by smoothness and precise timing.

**RAM**
Random Access Memory. The space in the computer on which information is temporarily stored while the computer is on.

**Real Time**
A real-time computer system may be defined as one that controls an environment by receiving data, processing them, and returning the results sufficiently quickly to affect the functioning of the environment at that time.

**Resolution**
The clarity of the images produced on a monitor screen.

**RGB**
Red, green and blue. The primary colours mixed on a television and computer screen.

**Role Playing**
A type of simulation in which team members, sometimes with the aid of computers, act out roles as parts of the problem being analyzed. For example, one member of the group could act out the role of editor; another could be a reporter, etc.
ROM
Read Only Memory. A permanently stored memory that is read and not altered in the operation.

Router
A device that regulates network traffic as it enters another network, and makes sure that messages go to the correct network site.

Scaffolding
The cognitive processing support that the instruction provides the learners, allowing them to learn complex ideas that would be beyond their grasp if they depended solely on their own cognitive resources, selectively aiding the learners where needed.

Search Engine
A tool used to search the Internet for information. It searches a defined database. A word or phrase is entered on a search engine and a number of "hits" will appear. Different search engines use different search strategies. By clicking on the term, you will be brought to that Web page.

Security
Protection from threats to the equipment, functioning and contents of a technology solution.

Self-paced Learning
Education in which the learner is on their own, studying without interaction with others. Sometimes used to refer to asynchronous modes of delivery. CBT has been the most common form of self-paced learning, but web-based asynchronous systems are catching up quickly.

Simulation
Software that enables the user to experience a realistic reproduction of an actual situation. Computer-based simulations often substitute for situations that are very costly or high risk.

Site
These are related pages on a Web server. A site is entered through a home page.

Smart Card
A small plastic card containing information that can be read by a computer scanning device.
Software
Stored digital information on magnetic disks or tapes or as electronic information in the computer's memory that determines what the computer does. Software can be divided into two groups, operating system software and application software.

Software Features
The capabilities offered by software that make it easy and effective to use.

Steering Committee
A group of persons who meet periodically to evaluate the progress and success of the implementation of the technology solution.

Streaming
Playing video or sound in real time as it is downloaded over the Internet. Data is decompressed and played (by use of a web browser plug-in) as it is transferred to your computer over the World Wide Web. Streaming requires a powerful computer and fast connection since the file is not stored on your computer.

Suite
A collection of software programs that are sold together and are supposed to work together efficiently and use similar commands.

Summative Evaluation
The process of collecting, analyzing, and summarizing data to present to decision makers in a client organization in order to make judgments regarding the effectiveness, and perhaps appeal and efficiency, of the instruction.

Surfing
Exploring locations and scanning the contents of WWW sites on the Internet.

Synchronous
Communication in which interaction between sender and receiver takes place simultaneously (e.g. telephone or videoconferencing).

System
Set of interrelated parts, all of which together toward a defined goal.

System Architecture
A description of the design and contents of a computer system. If documented, it may include information such as a detailed inventory of current hardware, soft-
ware and networking capabilities; a description of longrange plans and priorities for future purchases, and a plan for upgrading and/or replacing dated equipment and software.

System Functions
A list of the specific capabilities a system should be able to do or staff should be able to do using the system, such as system storage and retrieval capabilities, calculation and processing capabilities, reporting and output capabilities, and telecommunications capabilities.

Task (as in "performance task")
A goal-directed assessment exercise. If the task is authentic, it is designed to elicit from students their application of a broad range of knowledge and skills to solve a complex problem.

T-1 (Line) Transport
A digital signal that transmits 1.54 megabits/second of data. This is equal to 24 telephone lines (copper). This is a stage of compressed (partial motion) video. It is used for very high quality videoconferencing.

Technical Requirements
Simple statements of parameters for a technology solution addressing topics such as the number of people who will use the system and where they are located, the numbers and types of transactions that will need to be processed, and the types of technology components that need to interact.

Technical Support Staff
Those who support and maintain the technology solution once it is implemented.

Technology
The systemic and systematic application of behaviour and physical sciences concepts and other knowledge to the solution of problems.

Technology Plan
A plan of how to get your college, school or organization from where it is now to where you want it to be.
Technology Resources
The hardware, software, networks and networking capability, staff, funding and context which together can be used in the implementation of a technology solution.

Teleconferencing
The simultaneous visual and/or sound interconnection that allows individuals in two or more locations to see and talk to one another in a long-distance conference arrangement.

Telecourses
Courses in video format that are delivered via television or videotape.

Telnet
A service that allows the user to log into a remote computer and act as a terminal on that computer. Examples include library catalogues, databases, bulletin boards, journals, and scholarly papers.

Transfer
The application of new knowledge and skills to a variety of real-life situations and future learning tasks.

Translator
A device that converts information from one system of representation into equivalent information in another system of representation. In telephone equipment, it converts dialed digits into call-routing information.

Upgrade
To install a higher version or release of software on a computer system, or to add memory or newer types of equipment to a computer system.

Uplink
The capability of sending an electronic signal to a transponder on a satellite. There are two types: K-band and C-band.

URL

Users
The people who use technology as a tool to do their jobs. Typically users include instructional staff who provide instruction or do instructional management tasks.
using technology, and administrative staff who use technology to do the routine
and non-routine administrative activities of the organization as efficiently as pos-
sible. Students, parents, and community members can also be users. In some
cases, “users” are not really users at all; they are staff who wish they had tech-
nology to use.

**Utility Software**

Computer programs that help to manage, recover, and back up files.

**Version**

A major edition of a software program. The version number changes when a
software developer makes major alterations to the software such as adding new
features. The version number is a whole number following the name of the soft-
ware.

**Videoconferencing**

The ability for groups at distant locations to participate in the same meeting at
the same time using analog or digital video capabilities.

**Virtual Reality**

A complete environment that is assembled and managed by a computer program,
one in which the user enters and interacts with the program. The users wear a
special interface that puts them on the playing field and makes them the players.

**Vision**

The ideal state or condition you would like to achieve.

**WAN**

Wide Area Network. A data communications linkage (e.g. dedicated line, radio
waves) designed to connect computers over distances greater than the distance
transmitted by local area networks (e.g. building to building, city to city, across
the country, internationally) that allows users to communicate and share infor-
mation, such as the Internet, America Online, etc.

**Webcast**

A live audio and video picture broadcast over the Internet that can be viewed and
heard using a RealPlayer G2 version 5.0 (MAC) or 6.0 (PC). Version 6.0 will
work on both platforms.
**Web-Based Training (WBT)**
A form of computer-based training in which the training material resides on pages accessible through the World Wide Web. Typical media elements used are text and graphics. Other media such as animation, audio, and video can be used, but require more bandwidth and in some cases additional software. The terms "online courses" and "web-based instruction" are sometimes used interchangeably with WBT.

**Wideband**
A medium capacity communications path. It has a speed of 64 Kbps to 1.544 Mbps.

**Wireless**
Voice, data, or video communications without the use of connecting wires. In wireless communications, radio signals make use of microwave towers or satellites. Cellular phones and pagers are examples of wireless communications.

**Workstation**
A computer that is intended for individual use but is generally more powerful than a personal computer. A workstation may also act as a terminal for a central mainframe.

**WWW**
World Wide Web. A system that allows access to information sites all over the world using a standard, common interface to organize and search for information. The WWW simplifies the location and retrieval of various forms of information including text, audio and video files.

**Zone of Proximal Development (ZPD)**
A level or range in which a student can perform a task with help.
With the emerging new information and communication technologies (ICTs), the teaching profession is evolving from an emphasis on teacher-centred, lecture-based instruction to student-centred, interactive learning environments. Designing and implementing successful ICT-enabled teacher education programmes is the key to fundamental, wide-ranging educational reforms.

The present document provides resources to help teacher educators, administrators and policy-makers better apply ICTs to teacher education programmes. The resources were developed by an international group of experts with extensive experience in the integration of ICTs into teacher preparation programmes.