Arizona Adult Education TECHNOLOGY STANDARDS

Effective July 2005

ARIZONA ADULT EDUCATION

TECHNOLOGY CONTENT AND PERFORMANCE STANDARDS
INCORPORATING SAMPLE ACTIVITIES

Vision
*Extraordinary Adult Education provides opportunities for anytime, anywhere lifelong learning
through state-of-the art technology-assisted instruction, which keeps our workforce
globally competitive and enhances community, family, and personal growth.*

- *GOAL I-Adult learners will have equal access to and opportunity for technology-related skill development.*

- *GOAL II-Adult Education instructors will be competent, trained in, and have access to state-of-the-art technology to enhance their professional development and instructional abilities.*

Standard: The adult learner will develop technology skills and apply related concepts toward the achievement of personal, family, workplace, and community goals.

Definitions of performance levels:	Beginning Exhibit familiarity with basic technology terms and usage after some instruction.	Approaching Perform operations using technology and create products with assistance.	Met Use technology and create products with little or no assistance.	Exceeds Demonstrate technology skills above those of most users: create products independently, research new concepts, and assist other users.

NOTE: The sample activities can be applied to one or more of the AED curricular areas.

Indicator A. Social and Ethical Issues:
Students understand the social and ethical issues related to using technology in their daily lives and demonstrate responsible use of technology systems, information, and software.

(NOTE: The social and ethical issues are inherent in all of the indicators and disciplines and should be addressed in conjunction with all instruction.)

Sub-Indicator	Beginning	Approaching	Met	Exceeds

1. Discuss and practice responsible use of technology and demonstrate respect for others.	▪ Do not bring food, beverages, or objects that are potentially harmful near the equipment.
	▪ Recognize that damaging school equipment is destruction of public property.
	▪ Leave technology the way it was found.
	
	(continued)
		▪ Practice proper care of software (e.g., memory/storage devices).
		▪ Describe and practice safe Internet usage (e.g., does not post inappropriate or harmful material, do not reveal personal information).
		▪ Describe and practice legal and ethical behaviors when using technology (e.g., do not copy, alter, delete, or move others' work)
		▪ Describe and practice password security
		▪ Understand the consequences of plagiarism, such as:
		  o Loss of grade/class credit
		  o Expulsion
		  o Loss of public credibility
		  o Loss of job
		  o Legal action such as fines, and/or imprisonment
		
		(continued)
			▪ Describe and practice "netiquette" when using the Internet and e-mail (e.g., publish photographs of people only with their permission).
			  o Follow the rules for deciding when permission is needed for using the work of others
			  o Adhere to copyright laws and "fair use" guidelines.
			▪ Routinely and ethically conduct research using productivity tools and communication tools to solve a problem.
			▪ Avoid plagiarism by:
			  o Paraphrasing
			  o Properly citing sources
			  o Quoting
			▪ Obtain permission to use the work of others.
			▪ Do not download unauthorized files or programs.
			
			(continued)
				▪ Explain personal liability issues related to security systems to protect technologies (e.g., use of passwords and the importance of protecting them).
				▪ Discuss the negative impact of unauthorized intrusions into networked data and describe actions to prevent these intrusions (e.g., hacking, spamming, manipulating, or deleting data).
				▪ Cite electronic research sources following a prescribed format.
				▪ Advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information.
				
				(continued)

Sub-Indicator	Beginning	Approaching	Met	Exceeds
1. (continued from previous pg) **Discuss and practice responsible use of technology and demonstrate respect for others.**		▪ Shut down programs and equipment properly. ▪ Discuss the advantages and disadvantages of widespread uses of and reliance on technology in the workplace and in society as a whole.	▪ Recognize that piracy of copyrighted material is illegal. ▪ Describe computer viruses and ways to protect computers or any other technology from them.	
	SAMPLE ACTIVITIES- Students establish classroom rules for safe and proper use of equipment and materials, e.g., do not bring food, beverages, or objects that are potentially harmful near the equipment.	*SAMPLE ACTIVITIES- 1. Students type up classroom rules using appropriate equipment and display them. 2. Students generate discussion on the advantages and disadvantages of widespread uses of and reliance on technology in the family, workplace, and community.*	*SAMPLE ACTIVITIES- 1. Students type up examples of good and bad netiquette and post them in the classroom. 2. Students generate discussion on the implications of plagiarism using current events.*	*SAMPLE ACTIVITIES- 1. Students conduct research and discuss personal and workplace implications of improper applications of technology (e.g., how to avoid viruses, prevent hacking, piracy, spamming, and reasons for password protection). 2. Students practice proper citation techniques (e.g., bibliography, reference lists, footnotes, end notes, in-text citation).*

Indicator B. Fundamental Operations and Concepts
Students demonstrate a sound understanding of the nature and operation of technology systems and are proficient in their use.

Sub-Indicator	Beginning	Approaching	Met	Exceeds
NOTE: All vocabulary terms are defined in the glossary. **1. Communicate about basic technology components using appropriate and correct vocabulary related to external and internal computer or other technology operations.**	Use correct vocabulary, including: ▪ Backspace ▪ Caps lock/Shift keys ▪ CD ROM ▪ CPU ▪ Cursor ▪ Delete ▪ Desktop ▪ Directional keys ▪ Disk drive ▪ Enter/Return key ▪ Hard drive ▪ Hardware ▪ Icon ▪ Keyboard ▪ Menu ▪ Monitor ▪ Mouse ▪ Open/Close ▪ Print ▪ Printer ▪ Save ▪ Save as ▪ Software ▪ Space bar ▪ Toolbar ▪ Word processing *SAMPLE ACTIVITIES-* *Students identify and make labels for the various parts of the computer and attach them for practice.*	Use correct vocabulary, including: ▪ Copy/cut and paste ▪ Dialog box ▪ Download ▪ E-mail ▪ File ▪ Folder ▪ Font ▪ Help button ▪ Internet ▪ Minimize/Maximize ▪ Peripherals ▪ Pull-down menu ▪ Scroll bar ▪ Spell/Grammar check ▪ Task bar ▪ Undo/Redo ▪ Virus ▪ Virus protection ▪ Windows ▪ Wizard ▪ Zip (compression) ▪ Zip (uncompression) *SAMPLE ACTIVITIES-* *Students develop their own vocabulary lists and share it with classmates.*	Use correct vocabulary including: ▪ Application ▪ Browser ▪ Formatting ▪ Function keys ▪ Header/Footer ▪ Hyperlink (link) ▪ ISP ▪ Modem ▪ Operating system ▪ PDF ▪ Pop-ups/updates/plug-ins ▪ Proofreading marks ▪ RAM ▪ Search engines ▪ Surfing ▪ Thesaurus ▪ URL/http//: ▪ Web site *SAMPLE ACTIVITIES-* *Students go on-line to find definitions of terms used in the course.*	Use correct vocabulary including: ▪ Boolean logic ▪ Defragment ▪ LAN (WAN) ▪ MP3 ▪ Network ▪ Remote ▪ Server ▪ Streaming video/audio ▪ Template ▪ Wireless (Wi-Fi)

Sub-Indicator	Beginning	Approaching	Met	Exceeds
2. Use input devices effectively (e.g., keyboard, touch screens, glide pads, stylus, joystick, mouse).	▪ Recognize and use computers in everyday life (e.g., gas pumps, ATMs, grocery scanners, copy machines, airline check-in). ▪ Use alphanumeric keyboard to enter text and data. ▪ Perform specific tasks using an application that was previously launched. ▪ Perform point-and-click and scrolling operations with the mouse.	▪ Turn computer on and off safely. ▪ Log on and use password. ▪ Launch and quit applications. ▪ Use mouse to highlight and drag. ▪ Use shortcut keys	▪ Uses right click function of mouse. ▪ Use shift and control key to highlight multiple areas.	▪ Use function key shortcuts. ▪ Assist others with start up/shut down procedures and input devices.
	SAMPLE ACTIVITIES- *Students identify and practice using computers in everyday life such as going on "field trips" to places that use technology (e.g., ATMs, grocery store scanner, computerized telephone menus, gas pumps, movie tickets, food stamp cards, library cards, electronic kiosks, phone cards).*	*SAMPLE ACTIVITIES-* *Students demonstrate proper procedures for turning computer on and off and logging into and out of the computer.*	*SAMPLE ACTIVITIES-* *1. Students utilize the right-click function to select words underlined in red (for spelling) or green (for grammar) to identify options to correct spelling and grammar.* *2. Students generate discussion as to which is the correct spelling or grammar choice as identified by the right click function (e.g., there, they're, or their).*	*SAMPLE ACTIVITIES-* *Students who are proficient in technology assist other students in computer use by using correct vocabulary and procedures.*

Sub-Indicator	Beginning	Approaching	Met	Exceeds
3. Navigate within various applications.	▪ Recognize toolbar icons of opened programs and their functions. ▪ Use directional keys, backspace, and space bar.	▪ Recognize multiple ways to perform the same operation. ▪ Open, close, minimize, and maximize various applications. ▪ Move through document using various scrolling methods. ▪ Use pull-down menus. ▪ Apply highlighting, drag-and-drop, and copy/cut and paste. *SAMPLE ACTIVITIES-Students alphabetize a list of words using cut and paste and/or drag and drop.*	▪ Uses right click for appropriate applications. ▪ Open and manage multiple applications. ▪ Recognize shortcuts in pull-down menus.	▪ Uses function keys as one of the optional approaches to tasks. ▪ Work with multiple applications to accomplish a single task (e.g., merge addresses, insert spreadsheets).
4. Retrieve and save files to hard drive, disk, or other memory device.		▪ Name and save files to a specified location. ▪ Retrieve and open files. ▪ Recognize file extensions. *SAMPLE ACTIVITIES-Students name and save electronic files related to specific lessons.*	▪ Find files using search function. ▪ Create and manage folders. *SAMPLE ACTIVITIES-Students create and organize folders related to family, community, and workplace projects.*	▪ Archive/back up files. ▪ Recognize the difference between WAN and LAN. ▪ Advanced file search

Sub-Indicator	Beginning	Approaching	Met	Exceeds
5. Print documents.	▪ Print using printer icon from toolbar. *SAMPLE ACTIVITIES-* *Students print a vocabulary file using the printer icon.*	▪ Print using file menu. ▪ Print from print preview. *SAMPLE ACTIVITIES-* *Students print a vocabulary file using the print file menu or print preview.*	▪ Print using print options. *SAMPLE ACTIVITIES-* *Students change the way the document is printed (e.g., draft, landscape v. portrait, margins)*	▪ Change default printer.
6. Identify and apply strategies for solving routine hardware and software problems that occur in everyday use.	▪ Check to be sure computer, monitor, and printer are turned on and plugged in. ▪ Ask others for help. *SAMPLE ACTIVITIES-* *Students practice making requests for help (using "clarification", "yes/no" and "wh-" questions).*	▪ Check connections of computer and peripherals. ▪ Restart the computer. ▪ Use Help icon and/or Help Assistant. ▪ Read a dialog box and follow instructions. *SAMPLE ACTIVITIES-* *1. Students select an office assistant and search for instructions.* *2. Students generate discussion as to which help topic is appropriate for their purposes.* *3. Students make a list of strategies to troubleshoot problems.*	▪ Use multiple methods to restart the computer. ▪ Access online help. ▪ Recognize the presence and symptoms of a virus and seek assistance for a cure. ▪ Troubleshoot problems with frequently used programs. ▪ Unfreeze computer programs. ▪ Deal with broken links *SAMPLE ACTIVITIES-* *1. Students select the Task Manager to end programs that are not responding.* *2. Students utilize vocabulary related to troubleshooting (e.g., end task, memory).*	▪ Consult manuals to solve problems. ▪ Add/delete/reinstall/ software with permission of instructor. ▪ Check for viruses and address problem appropriately. ▪ Troubleshoot and repair problems with peripherals. ▪ Troubleshoot and repair problems with files and disks. ▪ Install Spyware/ Adware ▪ Understand cookies *SAMPLE ACTIVITIES-* *Students practice reading product manuals to troubleshoot problems in the workplace or at home.*

Indicator C. Technology Productivity Tools
Students use technology to enhance learning, productivity and creativity.

Sub-Indicator	Beginning	Approaching	Met	Exceeds
1. Make informed technology choices for directed, independent, and collaborative learning activities.	▪ Develop awareness of technology (e.g., computers, calculators, VCRs, ATMs, electronic kiosks, cell phones).	▪ Select technology appropriate to the task (e.g., Should a word processing program or presentation software be used? Should a tape recorder or MP3 player be used?).	▪ Discuss different products from a consumer's point of view. ▪ Discuss advantages and disadvantages of various technology choices (e.g., different word processing programs).	▪ Research advantages and disadvantages of different products from a consumer's point of view. ▪ Evaluate effectiveness of technology choices.
	SAMPLE ACTIVITIES- *Students identify and practice using computers in everyday life such as going on "field trips" to places that use technology (e.g., ATMs, grocery store scanner, computerized telephone menus, gas pumps, movie tickets, food stamp cards, library cards, electronic kiosks, phone cards).*	*SAMPLE ACTIVITIES-* *1. Students list technology available to them in their family, community, or workplace and their uses.* *2. Students make a log of their technology use in a day.* *3. Students choose technology best suited to their abilities and purposes.*	*SAMPLE ACTIVITIES-* *1. Students compare and contrast two or more technology products available to them in their family, community, or workplace.* *2. Students compare their logs of technology use with classmates*	*SAMPLE ACTIVITIES-* *Students conduct on-line product research for a product used in their family, community, or workplace.*

Sub-Indicator	Beginning	Approaching	Met	Exceeds
2. Use technology to support personal productivity, remediate skill deficits, and facilitate learning throughout the curriculum.	• Develop awareness of technological and specific software options available to address learning needs/styles.	• Select technology based upon personal learning needs/styles (e.g., voice recognition, CD ROM programs, assistive devices, language translator, readers, large print).	• Use specific technology that addresses personal learning needs/styles. • Accommodate personal learning needs by utilizing calculators, spell/grammar check, and thesaurus. • Customize desktop and toolbars for personal preferences with permission of instructor.	• Discuss other forms of technology that addresses others' individual learning needs/styles. • Demonstrate integrated use of three or more forms of technology/media (e.g., word processing, Internet, tape recorder, CD ROM, TV, DVD, VCR).
	SAMPLE ACTIVITIES- Students explore and discuss technology- based methods of instruction (e.g., a CD ROM, cassettes, videos, Scan and Read Pro®, Dragon Speak®, JAWS®, I Hear English®, Rosetta Stone®, Ellis).	*SAMPLE ACTIVITIES- Students select a technology-based method of instruction that appeals to their learning style (e.g., a CD ROM, Scan and Read Pro®, Dragon Speak®, JAWS®, Learning 2000®, PLATO®, cassettes, videos, I Hear English®, Rosetta Stone®, Ellis®).*	*SAMPLE ACTIVITIES- Students use a technology-based method of instruction that appeals to their learning style (e.g.,, a CD ROM, cassettes, Learning 2000®, Scan and Read Pro®, Dragon Speak®, JAWS®, PLATO®, videos, I Hear English®, Rosetta Stone®, Ellis®).*	

Sub-Indicator	Beginning	Approaching	Met	Exceeds
3. Use technology for managing personal/professional information.	▪ Develop awareness of available technology to manage personal information (e.g., finances, taxes, purchases, calendars, schedules, addresses).	▪ Select appropriate format for managing personal information needs.	▪ Enter data into a simple spreadsheet (e.g., recording attendance hours). ▪ Use telecommunications to access remote information (e.g., calling ahead to check on availability or location, check e-mail or bank records).	▪ Prepare and manage a spreadsheet.
	SAMPLE ACTIVITIES- Students make a list of different types of document options available to them either on the computer or as hard copy (e.g., PDA vs. Day Timer®, Quicken® vs. checkbook register).	*SAMPLE ACTIVITIES- Students select different productivity tools to create a family tree.*	*SAMPLE ACTIVITIES- Students track their attendance hours in an Excel spreadsheet or a table and compare their current level of participation with what is required for the class.*	*SAMPLE ACTIVITIES- Students prepare amortization, interest, if-then spreadsheets.*

Indicator D. Technology Communications Tools
Students use technology to communicate information and ideas effectively to various audiences.

Sub-Indicator	Beginning	Approaching	Met	Exceeds
1. Use online resources to communicate and collaborate.	▪ Print online forms and job applications and complete them using a pen.	▪ Create an e-mail account. ▪ Compose, send, delete, and receive e-mail. ▪ Complete online forms and job applications.	▪ Create and manage an address book (e.g., create new contacts, group lists). ▪ Attach files to e-mails. ▪ Create and manage e-mail folders. ▪ Sort email ▪ Independently access online forms and job applications.	▪ Set up and use shared folders. ▪ Access and use instructional chat rooms. ▪ Access and use Instant Messaging ▪ Communicate via bulletin/message boards, online discussion groups, listservs, and newsgroups.
	SAMPLE ACTIVITIES- *1. Students practice filling in personal information in a document that has been printed out from the computer.*	*SAMPLE ACTIVITIES-* *1. Students compose an e-mail to be sent to a member of the class.* *2. Students practice keying in personal information in an on-line interactive document.*	*SAMPLE ACTIVITIES-* *Students independently find and submit electronic forms that they may need for family, workplace, or community needs.*	

Sub-Indicator	Beginning	Approaching	Met	Exceeds
2. Create products for multiple audiences.	▪ Develop awareness of available multimedia choices that address sound, visuals, motion, and text (e.g., tape recorders, photography equipment, TVs, DVDs, VCRs, computers, peripherals, and print media).	▪ Understand various formatting choices (e.g., font, page set up, margins). ▪ Use spell/grammar check. ▪ Select appropriate multimedia according to the task and abilities of the learner.	▪ Select a design layout and format a document (e.g., font, page set up, line spacing, indents). ▪ Create a job-related word processing document (e.g., memo, cover letter, résumé). ▪ Create simple tables. ▪ Enter data into a spreadsheet or database. ▪ Insert a graphic into a document ▪ Utilize software tools to edit/revise documents (e.g., dictionary/ thesaurus, track changes, etc.). *SAMPLE ACTIVITIES-* *1. Students change the way the document is printed (e.g., draft, landscape v. portrait, margins)* *2. Students design a cover letter or résumé on the computer that details job skills or experience.* *3. Students prepare a simple flyer or brochure for the community or workplace (e.g., using clip art, text, scanned photographs, web-linked information).*	▪ Use a template and/or wizard. ▪ Edit a product by inserting "comments" and using "track changes." ▪ Create a final product using spreadsheet software, database software, presentation software, web page design software, and/or desktop publishing. ▪ Create a product incorporating two or more media (e.g., sound, animation, digital photography, video capture). ▪ Assist others in creating products. *SAMPLE ACTIVITIES-* *Students prepare a multimedia presentation for the family, community or workplace (e.g. video biography or story).*
	SAMPLE ACTIVITIES- *Students develop a vocabulary list to describe technology that is used in the home and workplace.*			

Indicator *E. Technology Research Tools*
Students develop and implement a research strategy to find accurate, relevant, and appropriate information sources.

Sub-Indicator	Beginning	Approaching	Met	Exceeds
1. Utilize a computer to locate and collect information.	▪ Develop awareness of various research tools and resources.	▪ Select and use appropriate research tools and resources to obtain information (e.g., electronic card catalog, search engines, CD ROM). ▪ Locate two or more sources of information.	▪ Perform a search by subject, keyword, and author. ▪ Use "Find" to locate information in document. ▪ Identify author/source/ date of information).	▪ Search using Boolean logic and/or advanced search techniques.
		SAMPLE ACTIVITIES-Students conduct an "Ask Jeeves" (www.ask.com) or Google (www.google.com) search to find an answer to a family, community, or workplace question.	*SAMPLE ACTIVITIES-Students search websites in English for information that is needed for the family, community, or workplace (e.g., www.webmd.com, for health issues, www.phoenix.gov for Phoenix information, www.weather.com for weather, web travel sites).*	

Sub-Indicator	Beginning	Approaching	Met	Exceeds
2. Interpret and evaluate the accuracy, bias, and comprehensiveness of information sources.	▪ Define primary source and secondary source.	▪ Identify whether information is from a primary or secondary source. *SAMPLE ACTIVITIES-* *Students conduct an interview (primary source) and read a secondary source and compare the versions (e.g., interviewing Rosa Parks vs. reading about the birth of the civil rights movement).*	▪ Identify the source of online information using the components of a URL (e.g., .gov, .edu, .com, .net, .uk) ▪ Discuss bias, timeliness, and credibility of sources. *SAMPLE ACTIVITIES-* *1. Students discuss URL significance and its meaning.* *2. Students use the information that they find in D1 Met to generate discussion as to the bias, timeliness, and credibility of the resources.*	▪ Verify accuracy of information by researching two or more sources.
3. Organize and present results of the research.	▪ Save location of information by using bookmarks/favorites.	▪ List and organize collected information (e.g., bookmarks/favorites, tables, charts, graphs). *SAMPLE ACTIVITIES-* *Students create a file system to organize materials they gathered for research on family, community, or workplace.*	▪ Use folders to manage collected information. ▪ Discuss and present research results informally (e.g., orally, e-mail, draft). *SAMPLE ACTIVITIES-* *Students generate class discussion related to their research on family, community, or workplace.*	▪ Cite research sources following a prescribed format. ▪ Formally present research results. *SAMPLE ACTIVITIES-* *Students prepare a multimedia presentation for the family, community or workplace.*

Indicator F. Technology to Promote Lifelong Learning.
Students use technology to support personal, community and workplace productivity.

Sub-Indicator	Beginning	Approaching	Met	Exceeds
1. Design and implement a personal learning plan that incorporates and utilizes technology.	▪ Demonstrate awareness of the need to stay current with innovations in technology.	▪ Discuss the influence and effects of innovations in technology on contemporary life. ▪ Set personal educational goals incorporating technology.	▪ Explore technology-based educational opportunities including distance education and other technological developments. ▪ Develop a plan for lifelong learning incorporating technology.	▪ Evaluate technology-based educational options including distance education and other technological developments for lifelong learning. ▪ Review/ revise learning plan based upon personal goals and changing technology.
		SAMPLE ACTIVITIES- Students generate discussion as to when it is appropriate to use technology and they set future learning goals.	*SAMPLE ACTIVITIES- Students identify personal and educational goals that incorporate technology.*	*SAMPLE ACTIVITIES- Students research distance education opportunities to improve their education.*

Sub-Indicator	Beginning	Approaching	Met	Exceeds
2. Recognize the capabilities, potential, and limitations of applying technology to real world situations.	▪ Identify common uses of technology in daily life (e.g., ATMs, gas pumps, grocery store scanners)	▪ List the advantages and disadvantages technology provides. ▪ Use technology resources for directed learning activities.	▪ Analyze the advantages and disadvantages of widespread reliance on technology in the workplace and in society. ▪ Use technology resources to assist in making informed decisions.	▪ Evaluate the advantages and disadvantages of widespread reliance on technology in the workplace and in society. ▪ Predict possible advances in technology. ▪ Use technology resources for independent learning activities (e.g., to solve real world problems).
	SAMPLE ACTIVITIES- Students identify and practice using computers in everyday life such as going on "field trips" to places that use technology (e.g., ATMs, grocery store scanner, computerized telephone menus, gas pumps, movie tickets, food stamp cards, library cards, electronic kiosks, phone cards).	*SAMPLE ACTIVITIES- Students complete an assignment related to family, workplace, or community using technology.*	*SAMPLE ACTIVITIES- Students conduct on-line research related to family, workplace, or community goals.*	*SAMPLE ACTIVITIES- Students conduct on-line research to help solve family, workplace, or community problems.*

TECHNOLOGY STANDARDS GLOSSARY

Address Book
> When using e-mail, a database of addresses that is maintained in an e-mail program.

Alternate Key (Alt Key)
> A key used simultaneously with other key(s) to reveal drop-down boxes. For example, Alt+T in Microsoft Word® will show the drop-down box with *Tools* choices.

Application
> A set of files that make up software for the user. An example of an application would be Microsoft Word® or Norton Antivirus®.

Archive (Back up)
> To copy or move data onto a secondary disk or tape for backup or data retention purposes. Archived files are normally compressed to maximize storage media, and such programs may be called "archiver programs" or "archiving programs."

Assistive Devices
> Tools that help people with visual impairments, hearing losses, severe speech impairments, physical disabilities and/or severe learning disabilities cope with demands that are placed upon them from their environment.

ATM (Automated Teller Machine)
> An example of commonly used, real world technology. An ATM is used to obtain cash from a pre-established bank account.

Backspace Key
> An erase key. Backspace moves the cursor one space to the left, deleting the character that was in that position.

Bookmark
> Used to save a web address on the Internet for rapid access. Called "Favorites" in Internet Explorer. Also marks a place in a word processing document.

Boolean (also Boolean Operator)
> When using the Internet, a system of logic that modifies search terms with the "operators" AND, OR, and NOT. Boolean operators can broaden or narrow the range of a search.

Browser

An application that allows people to interact with the Internet. Netscape and Internet Explorer are examples of browsers.

Bulletin Board System (BBS)

An electronic message database on the Internet where people can log in and leave messages. Users may submit or read messages in these public areas.

Cap Lock Key, Shift Key

Cap Lock Key: Allows typing in capital letters. Locks by pressing once and unlocks by pressing again. Does not engage symbols above dual-purpose keys.

Shift Key: When pressed simultaneously with another key, it capitalizes an individual letter or activates the upper symbol on dual-purpose keys. This key does not lock. E.g., asterisk (*) on number 8.

CD (Compact Disc), CD-ROM (Read Only Memory), CD Reader/Writer

CD: A flat round disc that is used to store large amounts of digital data. The disc is read by a laser.

CD-ROM: A CD on which information is stored for reading only. The information cannot be altered. E.g., copyrighted music CDs.

CD Reader/Writer: A device that provides access to information that is stored on CDs or CD-ROMs, such as encyclopedias, dictionaries, databases, or music. CD writers allow users to "write" or store information they wish to save.

Chat Room

A group discussion on the Internet. Once joining a chat room, everything typed can be read by others in that chat room.

Click

Quickly pressing and releasing a mouse button to activate a procedure.

Clip Art

Graphic images that can be cut and pasted electronically into documents. Clip art can be photographs, diagrams, maps, illustrations or cartoons.

Clipboard

A "holding place" on the hard drive where data is temporarily stored. *See definitions for Copy and Paste and Cut and Paste.*

Compression

Encoding data to take up less storage space and speed up transmission of data. An example of software used for compression is WinZip®. *See definition for Zip*

Communications Tools

Any device used to aid in disseminating information. Examples include telephone, computer, fax, television, and DVD.

Control Key (Ctrl Key)

A key used simultaneously with other key(s) to perform certain functions quickly. For example, Ctrl+Enter inserts a page break.

Control+Alt+Delete (Ctrl+Alt+Del)

A combination of keys that when pressed in order and held down simultaneously unfreezes or exits a program.

Copy and Paste

Reproduction of a file, text, image, or other electronic item within a document or from document to document. Copied items are temporarily stored on the clipboard for pasting. *See definition for Clipboard.*

Copyright Guidelines

Intellectual Property Rights (copyright) are guaranteed by the U.S. Constitution and Federal law. These protect the creative works of others from theft. Fair Use Guidelines provide limited privileges to educators.

CPU (Central Processing Unit)

The CPU is the "brains" of the computer and is the most important element of a computer system. The CPU is where calculations take place and programs are stored.

Cropping

A method used to resize or alter an image. Most graphics applications allow images to be cropped with a "clip" feature.

Cursor

Usually shown as a flashing, vertical line on the computer screen. When something is typed on a keyboard, the information appears at the cursor.

Cut and Paste

Cutting removes highlighted items and places them on the clipboard. Pasting places a copy of the item at the cursor. *See definition for Clipboard.*

Database

    A collection of data arranged into categories that can then be manipulated by the user to create reports.

Default

    An action taken by hardware or software if the user has not specified otherwise. For example, in the expression "the program defaults to xxx" means that the program does xxx under these circumstances unless directed to do otherwise.

Delete

    Removing a character, word, line, paragraph or other specified amount of text from a document.

Desktop

    On a Personal Computer (PC), the background behind all "windows", menus, and dialog boxes that represents a "desk." E.g., a desktop can be changed to a neutral pattern or a wild piece of art.

Desktop Publishing

    A program used to produce high quality printed output or camera-ready output for commercial printing, such as PageMaker® or Publisher®.

Defragment (Defragger)

    Software that enhances the computer efficiency by consolidating related information on the hard drive.

Dialog Box

    A window displayed on screen when the user selects a menu option. It provides the current status and available options for a particular feature in the program. For example, when clicking on an arrow to the right of the font type on the toolbar, additional font options are displayed.

Digital Photograph

    An image stored in computer language that can be displayed and manipulated on a computer screen.

Directional Keys

    The arrow keys on a computer that allow the cursor to be repositioned.

Disc, Disk, Diskette

    Used to store computer information. Disc refers to a compact disc (CD) or laser disc. Diskette refers to a floppy disk. Disk refers to the computer hard drive.

Disk Drive
Reads and writes data to a computer storage device such as a disc, diskette, or disk.

Distance Education, Distance Learning
A formalized teaching system in which the instructor and learner(s) are geographically separated and rely on technology for instructional delivery.

Document
A file created with a program.

Download/Upload
To receive a file transmitted over a network. In a communications session, download means receive; upload means transmit.

Drag-and-Drop
To hold down a mouse button while moving the mouse. This method is used to move objects and text, and to resize borders and objects.

DVD (Digital Video Display)
A CD-ROM that contains visual data such as a movie.

E-mail (Electronic mail)
An electronic means of sending letters, documents, messages and memos from one computer to another over a network.

Electronic Card Catalog
A computer-based version of the traditional library card catalog. A patron can type in or select predetermined search strategies to access items in a library's holdings.

Enter Key, Return Key
In word processing, the Enter key starts a new line. May also be used to perform some of the same functions as a mouse.

Fair Use Guidelines
Fair Use is an agreement between industry (copyright holders), educators, and the government allowing limited use without purchase of materials.

File
An electronic version of a paper file allows users to name, save, store, and retrieve documents and images easily.

File Extension

Extensions are used to recognize file types. All programs and almost all data files use extensions, which are separated from the file name with a dot. E.g., the extension ".txt" indicates a text document.

Find, Search

Used to locate a file on a disc/diskette/disc or a word within a document.

Folder

Used to organize information. A folder can contain multiple documents.

Font

A set of type characters with a particular style. Usually, each typeface (Times New Roman, Verdana, Comic Sans MS, etc.) is made available in four variations: normal weight, **bold**, *italic* and ***bold italic***.

Format, Formatting

Format: The layout, presentation or arrangement of data on a screen or paper.

Formatting: The process whereby a device is made ready for storing data.

Frozen

A computer or application that does not respond to any commands is "frozen." Ending a program or restarting the computer are methods used to solve this problem.

Function Keys

Keys used to command the computer (F1, F2, etc.). The commands executed by the function keys can vary by computer manufacturer.

FTP (File Transfer Protocol)

A method of transferring files between computers connected to the Internet.

Glide Pads

An input device usually found on a laptop computer that allows the user to manipulate the cursor and perform other functions of a mouse.

Grocery Scanner

An example of technology commonly found in a modern society. A grocery item is passed over an electronic reader that recognizes product information from a bar code.

Hacking

Attempts to gain unauthorized entry into a computer system or network.

Hard Drive, Hard Disk
> The primary storage device for a computer where applications, utilities, and files are stored.

Hardware
> The parts of a computer system that can be seen or touched. E.g., keyboard, screen, mouse, joystick, printer, and speakers.

Header/Footer
> Text that can be inserted at the top or bottom of each page in a document.

Help, Help Assistant, Office Assistant
> On-screen instruction regarding the use of a program. There is usually a Help menu in computer operating systems and applications.

Highlight
> Holding the cursor and dragging across text so that it has a different color background. Highlighting allows the user to make changes in the material such as "cut and paste" or "delete."

Hyperlink (Link)/Hypertext
> Hyperlink: A link in a document that leads to another document or a World Wide Web ("www.") site.
>
> Hypertext: Text that has hyperlinks. Hypertext is indicated by underlining or by color. Clicking on such a link leads to another location with more information about the subject.

Icons, Symbols
> A small picture on the screen that can represent a file, program, peripheral, or tool. E.g., open document icon (🗁)

Input Device
> Used to enter data and instructions into the computer's main memory. A mouse, a joystick, and a keyboard are examples of input devices.

Insert Key
> A key that switches between insert and type-over modes. When engaged, it allows the user to type over what has been written. When disengaged, the user can continue writing from that point forward.

Internet
> A global communications network. The Internet allows three primary functions: communications (e-mail and news), retrieval of information, and transferring files.

ISP (Internet Service Provider)

A company that provides access to the Internet. Examples include America On Line (AOL) and Juno.

Joystick

A pointing device used to move an object on screen in any direction used extensively in video games.

Keyboard

The main input device for computers. Keyboards are based on the typewriter but have additional keys to enhance data input.

Keyword

Used to identify a specific record or document or to locate information in a database or on the Internet.

Kiosks

Unattended multimedia structures that dispense information via computer screens. A keyboard, touch screen, or both can be used for input. E.g., ATMs, airline check in.

LAN (Local Area Network)

Programs, storage, and graphic devices at multiple computer workstations over relatively small geographic areas for rapid communication. *See definition for WAN.*

Listserv ®

An automatic mailing list server developed in 1986. When e-mail is addressed to a *LISTSERV* mailing list, it is automatically broadcast to everyone on the list.

Log On/Log Off

The process of gaining access to, or signing into or out of a computer system.

Macros

A series of menu selections, keystrokes, and/or commands that have been recorded and assigned a name or key combination. When the macro name is called or the macro key combination is pressed, the steps in the macro are executed from beginning to end.

Media

Media includes the use of text, audio, graphics, animated graphics and full-motion video. Multimedia programs are typically games, encyclopedias and training courses on CD-ROM or DVD.

Memory

The computer's workspace; a collection of Random Access Memory (RAM) chips). It is an important resource, since it determines the size and number of programs that can be run at the same time, as well as the amount of data that can be processed instantly.

Menu

A list of commands or options from which choices are made. Most applications now have a menu-driven component.

Merge

To combine information from two or more documents or cells.

Minimize/Maximize

To enlarge/reduce a window to the full/partial size of the screen.

Modem (<u>mo</u>dulator-<u>dem</u>odulator)

A device that enables computers to communicate through telecommunication lines, e.g., telephone or cable lines.

Monitor

A screen used to display the data received from a processor. A monitor looks like a television screen.

Mouse

An input device that moves the cursor on the screen, issues commands, and activates procedures.

MP3 (<u>MPEG Audio Layer 3</u>)

An audio compression technology. MP3 music files are played via software or a physical player that cables to the PC for transfer. MP3 has made it feasible to download quality audio from the Web very quickly.

Multimedia

An electronic product that includes more than one medium can be called a multimedia program.

Netiquette

The rules of etiquette on the Internet.

Network

A collection of computers that are linked together for the purpose of sharing information.

Newsgroup

An on-line discussion group that requires a news-reading program.

Online
> Connected to the Internet.

Open/Close
> Open: To engage a file for reading and writing.
>
> Close: To disengage a file that has been opened for reading and writing.

Operating System
> The master control program that runs the computer. The first program loaded when the computer is turned on, its main part, resides in memory at all times. The operating system sets the standards for all application programs that run in the computer. E.g., Windows XP or Linux.

Operations
> Any function of the computer. An operation could be calculations, text, or graphics.

Password
> A codeword that allows a user to gain access to a secured system or piece of information. *See definition of PIN.*

Paste
> Text or graphics inserted from the clipboard at the location of the cursor. Requires that an item first be placed on the clipboard.

Peripheral
> A device that can communicate directly with a computer, such as printers, scanners, cameras, CD-ROMs, and laser disc players.

PDA (Personal Digital Assistant)
> A pocket-sized personal computer. Files can be created on a PDA and later transferred to a larger computer

PIN (Personal Identification Number)
> A numeric code that allows a user to gain access to a secured system or piece of information. *See definition of Password.*

Piracy
> Theft by copying and using others' work, such as films, software, or music.

Plagiarize, Plagiarism
> To steal and pass off the ideas or words of another as one's own. Also to use another's product without crediting the source.

Point and Click

The user positions the cursor on the screen, then "clicks" the mouse button to start a desired action.

Presentation Software

A software program that displays a variety of information in a visual format, e.g., PowerPoint®.

Printer

A peripheral device that produces a paper copy of the information.

Productivity Tools

Any hardware or software that enables the user to accomplish a task.

Pull-Down-Menu

A list of options is displayed similar to a "menu." Also called a "drop-down menu" or "pop-up menu."

RAM (Random Access Memory)

Memory used to run the operating system and applications in a computer. The more RAM a computer has, the more applications it can run simultaneously.

Recycle Bin, Trashcan

An icon on a desktop where unneeded files are "thrown away." Placing a file into the recycle bin removes it from its former place on the computer. "Emptying" the recycle bin deletes the files in the bin.

Remote

A machine or facility that is in a different geographic location.

Right click

By clicking the right button on a mouse, certain operations are made available.

ROM (Read Only Memory)

Memory not available to user, but is used by the operating system.

Save, Save as

To copy the document, record or image being worked on onto a permanent storage medium such as a hard drive or disk. "Save as" allows the user to name the file and select where it is stored.

Scroll

To move through a document e.g., using a scrollbar, slidebar, scroll wheel, directional keys.

Scrollbar, Slidebar

A bar at the edge of a window used to move through a document.

Search, Find

Used to locate a file on a disc/diskette/disc or a word within a document.

Search Engines

A program that searches the Internet for specified keywords and returns a list of the locations where the keywords were found. Examples of search engines are Google, Alta Vista, and Excite.

Shared Folders

A method allowing more than one user access to information. Users may access folders from a remote location or different computer.

Shift Key, Cap Lock Key

Shift Key: When pressed simultaneously with another key, it capitalizes an individual letter or activates the upper symbol on dual-purpose keys. This key does not lock. E.g., asterisk (*) on number 8. A key that capitalizes an individual letter or activates the upper symbol on dual-purpose keys, e.g., asterisk on number 8 key.

Cap Lock Key: Allows typing in capital letters. Locks by pressing once and unlocks by pressing again. Does not engage symbols above dual-purpose keys.

Shortcut

To issue a command using keys or icons to do a certain task. A keyboard shortcut to quickly save a file in Windows is Ctrl+S. Desktop icons are shortcuts that launch applications.

Shut Down

To quit all applications and turn off the computer.

Software

The instructions that tell a computer what to do. An example of software is Microsoft Word®.

Space Bar

A key that puts spaces between letters or symbols.

Spam
Unsolicited, unwanted junk e-mail with wide distribution.

Spell Check, Grammar Check
A feature built into many applications that allows the user to check for spelling or grammar errors.

Spreadsheet
Used to organize and manipulate information where items of data sit in cells which are arranged into columns and rows. Mathematical calculations can be performed.

Storage Devices
Places to store data for future use, such as a floppy, hard drive, or CD-ROM.

Stylus
A pen-like input tool used to send a command to an electronic device.

Surfing
Examining online material by moving from one web location to another. It implies moving quickly, similar to "TV channel surfing."

Tab
Automatically indents text or moves cursor to the next cell, depending on the application.

Table
A presentation of information organized in rows and columns.

Telecommunication
Communication by electronic transmission of impulses.

Technology
Applying a systematic technique, method, or approach to solve a problem. Much of today's technology implies the use of computers.

Template
A document format that is commercially prepared to assist the user in creating a document. An example is a résumé wizard that contains a variety of résumé formats or templates from which to choose.

Text
The letters or words of a written work.

Text Wrap

A feature that allows text to automatically continue to the next line.

Thesaurus

A listing of synonyms and antonyms, such as *Roget's Thesaurus*. An automated thesaurus is included in some word processing programs.

Toolbar

A row or column of on-screen buttons used to activate functions in the application. Toolbars can be customized.

Touch Screen

A display screen that is sensitive to the touch of a finger or stylus.

Undo/Redo

Undo: A command within many applications that reverses the most recent action done in the application.

Redo: Reverses the Undo command.

Unfreeze

A computer or application that does not respond to any commands is "frozen." Ending a program or restarting the computer are methods used to solve this problem.

Upload/Download

To receive a file transmitted over a network. In a communications session, upload means transmit; download means receive.

URL (Uniform Resource Locator)

The global address of documents and other resources on the World Wide Web ("www."). .An example of a URL is for the Microsoft® web page: www.microsoft.com.

Video Capture

Electronically recording a visual image.

Virus

A program that infects and copies itself in computer files, spreading from computer to computer.

WAN (Wide Area Network)

A network that spans geographically separated areas, usually by using models and dedicated, high-speed telephone lines. *See definition for LAN.*

Web or WWW (World Wide Web)

A global network that is part of the Internet. It is normally viewed through a browser such as Microsoft® Internet Explorer or Netscape.

Web Page

One page of a web site on the World Wide Web with its own address called a Uniform Resource Locator (URL), e.g., http://www.msn.com

Web Site

A collection of one or more related web pages located on the World Wide Web. Each site is owned and managed by an individual, company, or organization.

Window

A rectangle on the screen that displays information. A window can contain pictures (icons), a document, or an application.

Wizard

A Microsoft® template for pre-designed elements of a software package. For example, a "letter wizard," within a word processing application, would lead the user through the steps of producing different types of correspondence.

Word Processing

Software that allows entering, editing, and formatting text. Some software also allows the use of graphics.

Zip

A file that contains one or more files compressed in the Zip file format. WinZip® is a commonly used and commercially available software to compress files. *See definition for Compression.*

Note: Many of these definitions were derived from www.webopedia.internet.com, www.Maran.com, www.techweb.com, and www.3d Dictionary.com.