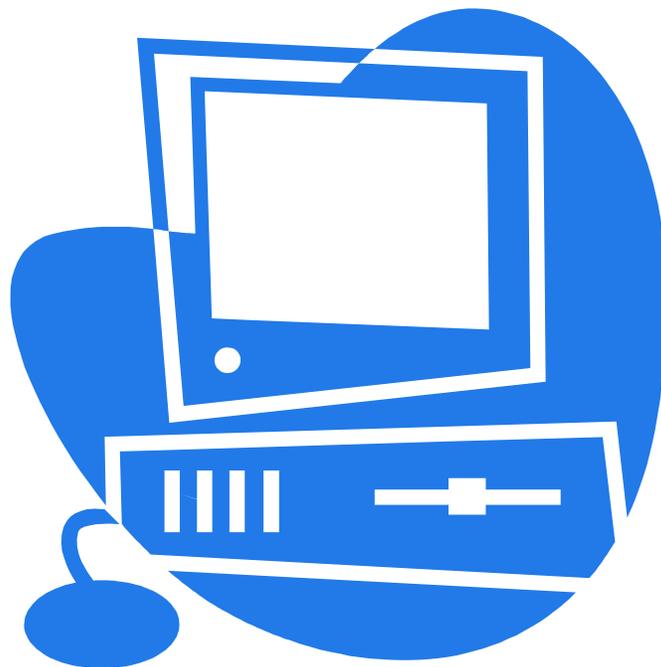


Core Competencies for Technology

Reviewed and updated by members from the
Alberta Public Library Electronic Network (APLEN)
Technology Training Committee
Alberta, Canada

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Core Competencies for Technology

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BASIC TECHNOLOGY CORE COMPETENCIES – LEARNING OBJECTIVES

Definition

Technology core competencies are defined as a combination of skills, knowledge and behaviours related to library technology and are important for organizational success, personal performance, and career development.

This combination of skills, technical knowledge and personal attributes, contributes to a staff member's success in any library position. These core competencies apply to all library staff; however, some aspects of each of the competencies may not apply to every staff person.

Background

The need for library staff to adapt to a changing environment is well known. The use of electronic information and related technologies has become indispensable in the delivery of quality library services. Continuous technological changes in public libraries over the past decade have resulted in library staff needing to maintain and upgrade their technological skills as they provide service to library patrons. In addition, public libraries have experienced turnover of staff members which means that the basic technology training (how to use productivity software, knowledge of the Internet and email) is never truly completed. For many libraries, access to training sessions can be limited by budget restrictions, distance, a lack of staff members and availability of appropriate sessions. It is generally accepted that today, local library staff members need basic technology competencies that exceed knowledge and use of the automated library system.

Current Situation

The development of basic technology core competencies is a way to examine the skills required in public libraries, as well as a way to assist APLEN in providing the most support to the nodes and public libraries. At the most fundamental level, computer literacy skills are needed in each library.

Each node is autonomous, and creates its own training plans, responding to local members' needs. APLEN has recognized that there are educational and training requirements necessary within the public library community. APLEN has tried to address these training issues by having a staff member committed to deliver training in partnership with the node libraries. In previous grant rounds, APLEN provided a training grant in order to assist technical staff obtain high-end technical training. APLEN, in the past, has made available basic training in productivity software in order to ensure that staff at libraries received some basic computer training.

Goal of the Core Competencies Subcommittee

The APLEN Technology Training Team struck a Core Competencies Subcommittee in April 2004 to develop an adaptable template of basic technology core competencies generally required to work in an Alberta public library. This template and accompanying self-evaluation checklist for staff will provide information to assist public libraries, the

Nodes and APLEN to identify staff training needs. The technology competencies were developed collaboratively by: Sue Colp, Strathcona County Library; Laurie Harrison, Peace Library System; Karla Palichuk, The Alberta Library; Isobel Rancier, The Alberta Library; Michael Silver, Parkland Regional Library System; and Diane Tinnish, St. Albert Public Library.

The subcommittee's mandate was identified as follows:

- To identify a template of basic technology competencies generally required to work in a public library
- To develop a self-evaluation checklist of technology skills at various levels for library staff
- To assist libraries in recognizing what technology competency training programs for staff may be needed
- To identify areas where APLEN can provide technology training to the nodes and public libraries

Why develop technology core competencies?

Basic technology competencies are but one aspect of overall library competencies. They should complement, and not be isolated from, core principles of public librarianship such as customer service, circulation, collection development, cataloguing, reference services, children's literature, readers' advisory etc.

Basic technology competencies provide library staff with abilities and skills to assist library patrons with technology. In addition, a list of competencies can be used to guide in the following situations:

- Defining work expectations
- Building job descriptions
- Providing measures for performance evaluations
- Providing directions for new areas of learning and growth
- Assisting staff to affirm existing knowledge, and to identify any knowledge gaps
- Identifying areas where training is necessary
- Assisting in the hiring process, by identifying candidates with required basic competencies
- Assisting with goal-setting for staff

Evaluation

This recommended list is considered to be an adaptable tool that will evolve as the technology needs of staff in public libraries evolve. Each node and public library has the option to customize the list of basic technology competencies to meet the staffing situation in their individual library environment. As this document is meant to encompass a wide range of skills, those who use it may wish to modify portions to suit their own specific training needs. Public library staff should participate in the evaluation of the core competencies. The competencies were reviewed by the subcommittee in June/July 2007. The competencies will be reviewed and updated annually.

Libraries will need to determine for which specific staff the technology competencies are appropriate. The staff members who are affected should be asked for feedback.

Categories:

All public library staff members use technology for job-related purposes. The following recommended technology core competencies are categorized into general areas where it is recommended that library staff present skills:

- Computer Hardware Competencies
- Library and Office Equipment Competencies
- Internet Competencies
- Email Competencies
- Computer Workstation & ILS Competencies
- Software Competencies
- Operating System Competencies
- Database Search Competencies
- Networking Competencies
- Security Competencies
- Troubleshooting and Maintenance Competencies
- Responsible & Ethical Use Competencies
- Assistive Technology Competencies

Computer Hardware Competencies

- Knowledge of standard terminology to refer to computer components (CPU, monitor, memory, hard disk, CD-ROM, etc.)
- Identify parts of a computer workstation
- Use and maintain a computer
- Start up and shut down computer system and peripherals (including printers, scanners, zip drives, speakers and CD writers)
- Knowledge of where power cords are so connections can be checked
- Ability to disconnect, move and re-connect a computer
- Knowledge of how to access Print Manager (or equivalent)
- Knowledge of how to insert and eject floppy disks and CD-ROMs
- Use a keyboard, mouse and function keys
- Ability to connect and disconnect peripheral devices
- Ability to recognize different types of cabling
- Identify drives on the computer
- Identify the network cable
- Knowledge of surge protectors
- Know whom to call for maintenance and repair

Library and Office Equipment Competencies

- Use and maintain a printer
- Use and maintain a fax machine
- Use and maintain a photocopier

- Use and maintain other equipment including scanners, digital cameras, barcode scanners
- Troubleshooting of library & office equipment
- Know where equipment manuals are located
- Know whom to call for maintenance and repair

Internet Competencies

- Knowledge of the contents of the library's Internet Acceptable Use Policy
- How to connect to the Internet
- How to access the library's website
- Understanding of what resources can be found on library website
- Knowledge of Internet terminology (URL, search engine, home page, link, web site, tool bar, scroll bar etc.)
- Ability to demonstrate basic Internet use
- Knowledge of web browsers & how to use effectively
- Knowledge of search engines
- Evaluate information based on currency, relevancy and accuracy
- How to search webpages
- How to add and use bookmarks
- How to print all or part (frames) of a webpage
- How to identify parts of URL's
- Knowledge of navigation buttons
- How to print graphics
- How to change the default home page
- How to clear temporary files
- Knowledge of file extensions and plug-ins
- Understand internet billing (dial up)
- Knowledge of local Internet Service Provider.
- Understanding security (local settings, downloads)
- Awareness of chat use, and instant messaging.
- Knowledge of Internet training available for library patrons
- Knowledge of Alberta Municipal Affairs and Housing website
- Knowledge of the regional library system's website
- Knowledge of The Alberta Library's website
- Knowledge of TAL Online & how to access
- Knowledge of Ask A Question (AAQ) & how to access
- Understanding privacy and intellectual property issues as they relate to the Internet, including filtering and censorship issues

Email Competencies

- Knowledge of library's email program (Eudora, Microsoft Outlook etc.)
- Knowledge of library's email address
- How to log in and out of email
- How to change password

- Identify the parts of an email address
- Knowledge of email etiquette
- Compose, send, retrieve, forward, redirect, reply to and organize email
- Attach a file and open an attachment
- How to resend bounced messages
- Saving messages to local hard drive
- Difference between different email accounts ILS, on network etc.
- Knowledge of email distribution lists
- Recognize potential viruses
- Understand list serves, type of info they support
- Knowledge of spam rules
- Knowledge of acceptable email use
- How to manage and delete messages
- How to use folders
- Filtering and setting automatic routing of emails to files
- Personal settings (automatic spell check, signatures)

Computer Workstation & ILS Competencies

- Operate the various modules of the ILS (OPAC, circulation, acquisition, cataloguing, etc.)
- Use reports from the ILS to manage the collection
- Ability to search and place a hold
- Knowledge of how the OPAC differs from the other modules
- Identify hardware options for special needs patrons
- Knowledge of remote access to computers
- Name of ILS vendor
- Understanding the parts/components of the OPAC record
- Understand OPAC levels of access (how modules work and how to get access)
- What ILS system they are running and what version
- Knowledge of how ILS interacts with the library's website
- Knowledge of which are Community Access Program (CAP) computers

Software Competencies

- Understanding of library's licensed software products
- Knowledge of product names and features
- Knowledge of how to access and use products
- Identify software options for special needs patrons (Visunet)
- Use a word processing program (e.g. Microsoft Word)
- Use a spreadsheet program (e.g. Microsoft Excel)
- Understand file extension formats (doc, jpg, gif, pdf, txt, xls etc.)
- Track software manuals (print or electronic) and licensing information
- Install & uninstall application programs (Microsoft Office, Adobe Acrobat Reader, etc.)

- Knowledge of zipped files
- Knowledge of time-out software, if applicable

Operating System Competencies

- Identify what operating system is in use
- Understanding of Windows 2000, Windows XP or the current platform
- Understanding of the desktop
- File creation and management
- Folder creation and management
- Standard names for the components of the operating system
- Use of controls such as menus, toolbars, list boxes etc.
- Ability to change desktop properties
- Knowledge of Windows Explorer

Database Search Competencies

- Identify electronic resources appropriate to customer requirements and abilities
- Access the library's electronic databases
- Knowledge of the features of the electronic resources
- Search the electronic databases using keyword and Boolean logic
- Retrieve and print data from an electronic database
- Save the results of a search
- Knowledge of how to structure searches
- Difference between print and electronic resources
- Familiarity with how and why electronic databases differ from the Internet
- Ability to email, print and save information from electronic databases

Networking Competencies

- Knowledge of which staff member is the Network Administrator
- Ability to determine the difference between phone cables and network cables
- Ability to determine the difference between phone jacks and network jacks
- Ability to determine if the Internet connection is down
- Ability to determine if the connection to ILS is down
- Maintain documentation of local area network (LAN) configuration
- Knowledge of location and configuration of network devices
- Maintain appropriate security measure and records of passwords

Security Competencies

- Know the version and type of security software that is on computers
- Awareness of potential Internet security risks (e.g. viruses, spyware, cookies, downloading malicious or unauthorized files,)
- Awareness of potential security and privacy threats while using email (attachments, chain letters, hoaxes, spam, viruses, etc.)

- How to handle virus announcements
- Ability to determine differences between viruses and hoaxes
- Familiar with security precautions currently implemented in the library (e.g. firewalls)
- Understand how the security software protects the computer
- Knowledge of where to find legitimate resources on computer security
- Awareness of password security
- General knowledge of viruses
- How to update anti-virus program
- Knowledge of backups – who performs in library
- Knowledge of library's disaster recovery policy
- How to respond to power failures

Troubleshooting and Maintenance Competencies

- Identify problems with the hardware, software or local area network
- Protect against computer viruses
- Understand the meaning of common error messages
- Maintain the proper operating environment for computers and peripherals
- Use the Task manager to delete non-responsive programs
- How to reboot workstations
- Understand cables, power cords, on-off switches on all equipment
- Empty the recycle bin
- Clean PC externals, power supplies, physical maintenance
- Regularly install updates
- Know how to respond to power failures
- Locate and use equipment manuals (print or electronic), FAQs, and online help services to identify and solve problems
- Communicate problems effectively to support/repair person

Responsible & Ethical Use

- Understanding that the computers & other equipment are part of a network of electronic resources that staff agrees to use responsibly
- Understand and follow library board policies concerning copyright, the Internet Acceptable Use Policy, passwords, appropriate use of resources, virus protection strategies etc.
- Model ethical use of electronic resources
- Understanding of what software the library is licensed to use
- Demonstrate broad and up-to-date knowledge of current library technologies
- Look for opportunities to use and expand technical knowledge, skills and expertise
- Develop practical skills to assist patrons in use of the OPAC, the Internet, email and various software applications
- Understand and use relevant technology to deliver services

- Understand privacy and intellectual property issues as they relate to the Internet, including filtering and censorship issues
- Monitor the environment for emerging technologies that are relevant to library services

Assistive Technology Competencies

- Identify and use products under the following categories:
 - Low Vision (E.g., Screen Magnification Software, Voice Recognition Software, Large Print Keyboards, etc.)
 - Blindness (E.g., Braille Writers/Notetakers, Braille Translation Software, etc.)
 - Communication Aids (Language and Therapy Materials, Mounting Kits, etc.)
 - Physical Access (Onscreen Keyboards, Touch Screens, etc.)
 - Special Education (Portable Notetaking Devices, Portable Electronic Dictionaries, etc.)
 - Education (Math Software, Teacher Tools, Testing Software, etc.)
- Identify features of accessible websites

If you have any suggestions for additions that could be made to this document, please contact Ivana Kozina, APLEN Training Librarian at ikozina@thealbertalibrary.ab.ca. Suggestions will then be passed on to the APLEN Technology Training Committee for consideration.

Staff Self-Evaluation Checklist

COMPUTER HARDWARE COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Turn on the computer			
Locate the CPU (Central Processing Unit)			
Locate and use the monitor			
Locate and use the mouse to point, click, drag and scroll			
Locate and use the keyboard			
Locate, connect, and use the speakers			
Locate the network cable			
Locate and use the barcode scanner			
Understand basic computer terminology			
Know the start-up commands			
Know the shut-down commands			
Log on and off the local network			
Know the passwords			
Locate the cables and power cords			
Locate and use the on-off switch			
Locate the surge protectors			
Identify and locate the hard drive			
Locate the CD-ROM and/or DVD drive; insert and eject a CD-ROM and/or DVD			
Locate the floppy drive and/or flash drive; insert and eject a disk and/or USB stick.			
Connect to the printer			
Send documents to the printer			
Send documents to the scanner			
Reboot the workstation			
Basic troubleshooting			
Customize the look or sound using the Control Panel			
Run two or more programs simultaneously			
Keep the virus protection program updated			
Know where manuals are located			
Set up a laptop			
Establish a wireless connection on a laptop			
Know what a wireless device is and where it located (what the range is supposed to be)			
Know how to find and reboot the wireless hub if it goes down			

Ability to:	No Skills	Learning	Proficient
Identify and use backup devices, such as a battery.			
Identify and use a flash drive, and know other terms it may be describe by			
Identify and use the following input devices: web camera, scanner, microphone, iPOD, MP3, digital camera			
Identify if/when there is a problem with the surge protector (whether it is running or not)			
Identify and use a USB port			
Know how to run a scan disk or check disk (to defrag)			
Know whom to call for maintenance and repair			
Teach others to use the computer			

LIBRARY AND OFFICE EQUIPMENT COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Use and maintain a printer			
Add paper to the printer			
Change the toner in a printer			
Clear a paper jam in the printer			
Check and clear the print queue			
Check the printer set-up for proper configuration			
Use and maintain a fax machine			
Send and receive fax messages			
Add paper to fax machine			
Change the toner in fax machine			
Clear paper jam in fax machine			
Use and maintain a photocopier			
Make copies in the photocopier			
Add paper to the photocopier			
Change the toner in photocopier			
Clear paper jam in photocopier			
Use and maintain a barcode scanner			
Troubleshoot printers, fax machines, and photocopiers			
Connect and use a data projector			
Identify and use print management kiosks/stations			
Use patron computer/Internet time management software			
Identify and use self-checkout stations			
Identify and use cash registers, change machines and/or coin boxes			
Identify and use debit and credit card machines			
Know where equipment manuals are located			
Know whom to call for maintenance and repair			

INTERNET COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Locate and understand the library's Internet Use Policy			
Identify the library's Internet Service Provider (ISP)			
Define Internet terminology (URL, search engine, home page, link, web site, toolbar, scroll bar etc.)			
Access the World Wide Web (WWW)			
Connect to the Internet via different web browsers (Internet Explorer, Firefox, Safari, Opera, etc.)			
Use a variety of search engines and subject directories			
Identify and follow links in text and graphical form			
Locate the library's website			
Understand the contents & resources located on the library's website			
Perform basic searches			
Evaluate Internet information			
Interpret and identify the parts of a URL			
Scroll up and down in a web page			
Print all or part of a web page			
Search for text within a web page			
Add, organize and use bookmarks/favorites			
Identify and use the icons on the toolbar and menus			
Use navigational buttons: back, home, go, refresh, history			
Understand File Maintenance (how to open, save, download, copy, print and delete a file)			
Change options and preferences			
Change the home page			
Delete history and temporary Internet files			
Identify and name characteristics and examples of Web 2.0			

Ability to:	No Skills	Learning	Proficient
Identify examples of wikis, blogs, RSS feeds, and podcasts			
Distinguish between the Internet and the ILS			
Recognize security issues			
Understand privacy and intellectual property issues (filtering, censorship etc.)			
Locate Municipal Affairs & Housing website			
Locate the regional library's website			
Locate The Alberta Library's website			
Locate TAL Online			
Locate Ask A Question (AAQ)			
Recognize security issues; i.e., Identify whether a website is secure or not			
Identify and use RSS feeds and how to subscribe to them			
Identify and use a news reader or news aggregator			
Identify if the library filters the Internet content and whether it does so on your browser			
Teach others how to access and search the Internet			

EMAIL COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Identify the library's email program			
Identify the library's email address			
Log in and out of email (with passwords)			
Identify the parts of an email address			
Understand email etiquette			
Address a message			
Understand the difference between CC and BCC			
Compose a message			
Type the subject of the message in the Subject box			
Type in the BCC address			
Send a message			
Send a message to multiple recipients			
Check mail in Inbox			
Read incoming messages			
Reply to a message			
Forward a message			
Delete a message			
Insert files into a message			
Print a message			
Save messages to local hard drive			
Create mailboxes/folders			
Create rules for folders (this may be software specific)			
Delete a folder			
File a message by subject			
Locate and read a message previously filed			
Transfer a message from one folder to another			
Attach a file			
Open and save a received attachment			
Send an attachment received			
Create or modify an auto signature			
Delete an auto signature			
Create and use an Address			

Book/Contacts List			
Ability to:	No Skills	Learning	Proficient
Delete a contact in an Address Book/Contact List			
Create a distribution list			
Edit a distribution list			
Delete a distribution list			
Show users how to set up email accounts			
Identify a bounced message			
Resend a bounced message			
Recognize potential viruses			
Remove items from the Deleted folder			
Recognize spam email			
Understand online email programs such as Hotmail			
Subscribe and contribute to listservs			
Understand listserv etiquette			
Create e-mail rules and filters			
Request and/or understand what a "Read" receipt is			
Mark messages as "Unread" or as "Priority"			
Colour-code messages depending on sender			
Teach others how to use the program			

COMPUTER WORKSTATIONS AND ILS COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Identify the library ILS vendor (Integrated Library System) (Dynix, Horizon etc.)			
Connect to library's OPAC from the icon on the desktop			
Identify hardware options for special needs patrons			
Log onto the OPAC			
Identify the modules of the ILS (acquisitions, circulation, cataloguing etc.)			
Search OPAC by keyword, subject, title or author			
Search OPAC by material type			
Locate and read a MARC record			
Perform Checkin & Checkout			
Place a hold			
File a hold			
Add, edit and/or delete an item			
Create, edit and/or delete a patron record			
Clear fines or overdues from a patron account			
Access and run routine reports			
Assist patrons to search the OPAC			
Teach others how to use the OPAC			
Identify which computers are CAP (Community Access Program) workstations			
Distinguish between the Internet and the ILS			
Understand how the workstation is connected to the software being used (e.g. ILS server)			
Recognize when the ILS is off-line and how to work off-line			
Understand how and when notices are generated			
Print receipts			
Understand patron privacy issues and your library's policy			

SOFTWARE COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Understand the functions of software programs			
Identify the software applications and the version you are using			
Keyboarding skills			
Access and use a word processing program (e.g. Microsoft Word or WordPerfect)			
Access and use a spreadsheet program (e.g. Microsoft Excel)			
Locate and use the integrated help files			
Open and close applications			
Identify which programs are open			
Minimize, restore and maximize a window			
Open and close a document			
Identify components of a document window			
Use the spell-checker			
Scroll up and down within a document			
Find specific text within a document			
Move text within a document			
Delete text within a document			
Cut and paste			
Copy and paste			
Open, rename and save a previously saved document			
Identify file extensions (doc, jpg, gif, pdf, txt, xls etc.)			
Insert tables, pictures, clip art and graphs			
Insert and modify the header and footer			
Paginate and date documents			
Change font size, font type			
Change paragraph formatting (indents, bullets etc.)			
Change page setup (margins, portrait/landscape etc.)			

Ability to:	No Skills	Learning	Proficient
Print all or part of a document			
Identify and use print preview			
Create a shortcut on the desktop			
Compress a file			
Select a printer and print files			
Identify software options for special needs patrons (Visunet)			
Access digital reference software			
Understand use of time-out software			
Access and use CD-ROM and DVD burning software			
Track software manuals (print or electronic) and licensing information			
Identify and use web conferencing software			
Install and uninstall programs			
Install and uninstall software for printers and other peripherals			
Teach others how to use software			

OPERATING SYSTEM COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Identify and use the operating system (e.g. Windows 2000, Windows XP, Vista, Mac OSX, etc.)			
How to open the operating system			
Identify and use desktop icons			
Create a file			
Open and edit a file			
Delete a file			
Create a folder			
Understand the differences between files and folders			
How to select files and folders			
How to move a window			
How to change the size of a window (minimize, maximize)			
How to close a window			
How to copy and paste			
How to drag and drop			
Understand the file name conventions/extensions			
Know the right-click mouse options			
Create desktop shortcuts			
Use keyboard shortcuts			
How to click a dialog box option			
How to Run programs			
How to use the Start button			
Switch between running programs			
Understand the contents of the Start Menu			
Navigate in the folder/directory system			
Understand and use various save options			
Open & edit a file			
Organize files and folders			
Move and copy files			
Rename and delete files			
Navigate without the mouse			
Know the common menu items			
Know how to set up passwords			

Ability to:	No Skills	Learning	Proficient
Make changes to display using control panel			
Shut down the computer			

DATABASE SEARCH COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Identify the electronic resources licensed to the library			
Search for information when it is in electronic format			
Perform basic searches within the electronic resources			
Perform searches using Boolean logic			
Understand the difference between indexed and full-text resources in databases			
Limit or expand searches within these resources to get to information that meets needs			
Print articles from the electronic resources			
Save articles from the electronic resources to disk or to the computer			
Email articles from the electronic resources to self or to patrons.			
Identify where databases are located on your library's website			
Log into databases			
Access and use databases remotely			
Find the list of publications indexed in a database			
Set up an alert in a database			
Identify which databases can be used remotely and which cannot			
Identify which databases are part of the TAL core			
Identify and use Safari for Macs			
Teach others how to search online databases if required			

NETWORK COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Identify if the library's computers are on a network			
Identify the parts of a network, and how it relates to the library			
Create a network map of the library's network setup			
Keep track of the network configuration			
Identify and communicate with the Network Administrator			
Identify a phone jack			
Identify a network jack			
Identify a phone cable			
Identify connections to hubs, routers and switches			
Identify a network cable			
Save and/or share files and folders to a designated area on the network			
Understand whether items are being saved to a shared or personal space			
Understand and identify the need to change or add workstations, printers and other devices to the network			
Do some basic network troubleshooting			
Know whom to contact when network problems occur			
Teach others about the network			

SECURITY COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Understand library's security policy and the precautions currently implemented (e.g. firewall)			
Know the version and type of security software on computers			
Identify and communicate with the Network Administrator			
Enable and disable security software			
Understand how the security software protects the computers			
Identify a computer virus			
Identify a computer hoax			
Update the anti-virus program			
Know who performs backups			
Understand Internet security risks (e.g. email viruses, spy ware etc.)			
Understand and maintain secure passwords			
Understand the potential security or privacy threats of cookies			
Understand the potential security or privacy threats of downloading malicious or unauthorized files			
Understand the potential security threat of viruses			
Understand the potential security threat of attachments in email			
Understand the potential security threat of spam			
Clear cookies and temporary files from the Internet cache			
Respond to power failures			
Access and understand the library's disaster recovery policy			
Identify whether lockdown software is on the computer and know how to use it (e.g., Deepfreeze)			

TROUBLESHOOTING AND MAINTENANCE COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Identify problems with hardware, software and network			
Understand the meaning of common error messages			
Use tools to maintain the computer			
Empty the Recycle Bin			
Clean the computer externals and printer			
Keep the virus protection program updated			
Install and maintain updates			
Use the Task Manager to delete non-responsive programs			
Defrag the hard drive			
Identify and use scan disk and check disk			
Reboot the workstation			
Respond to power failures			
Locate and use equipment manuals (print or electronic)			
Use online Help			
Know whom to call for maintenance and repair			
Communicate problems to support/repair person			

RESPONSIBLE AND ETHICAL USE COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Understand copyright restrictions to print and electronic resources			
Understand the difference between freeware, shareware and commercial software			
Understand the software the library is licensed to use			
Understand the library's Internet Use Policy			
Enforce the library's Internet Use Policy			
Model ethical use of electronic resources			
Speak to technology issues with staff and patrons			
Be aware of tools that are available to understand the use of technology and issues surrounding technology (Web Awareness program)			
Develop practical skills to help patrons use the OPAC, Internet, email and software applications			
Demonstrate broad and up-to-date knowledge of existing technologies in your library			
Understand the legal implications for libraries providing secured and unsecured wireless networking			
Understand and explain Implications for patrons working in a public environment (e.g. passwords and banking information may not be secure)			

ASSISTIVE TECHNOLOGY COMPETENCIES

Ability to:	No Skills	Learning	Proficient
Identify and use products under the following categories:			
<i>Low Vision</i> (CTVs, Computer Compatible CCTVs, Portable CCTVs, Screen Magnification Software, Training Software, Large Print Keyboards, Scanning and Reading Systems, Television Enhancement, Voice Recognition Software).			
<i>Blindness</i> (Braille Training Products, Screen Reading Software, Braille Writers/Notetakers, Braille Displays, Braille Printers, Braille Production Equipment, Braille Translation Software, Cell Phones, Reading Systems, Scanning Systems, Tactile Graphics, GPS Systems, Mobility Aids) .			
<i>Physical Access</i> (Alternate Access Devices, Eye Tracking Mouse Emulators, Mouse Alternatives, Keyboard Alternatives, Onscreen Keyboards, Computer Access with Communication Aids, Voice Recognition Software, Environmental Controls, Mobility, Touch Screens, Switches, Music Therapy).			
<i>Special Education</i> (Scanning, Reading, and Writing Systems, Portable Notetaking Devices, Portable Electronic Dictionaries, Voice Recognition and Dictionary Software, Tactile Graphics, Access Devices and Software).			

Ability to:	No Skills	Learning	Proficient
Identify and use products under the following categories:			
<i>Education</i> (Math Software, Language Arts Software, Teacher Tools, Testing Software).			
<i>Communication Aids</i> (Communication Aids, Language and Therapy Materials, Mounting Kits).			
Identify features of accessible websites			

Online Tutorials for Core Competencies

Hardware Competencies

- Learning Technologies – Operate a Computer
- <http://www.learningtechnologies.ac.uk/ITQResources/ITQPack/copyprint/file7.pdf>

- Victoria Police IT Traineeship
- http://online.nmit.vic.edu.au/police/hardware/1_1index.htm

- Internet 4 Classrooms – Windows/PC
- http://www.internet4classrooms.com/on-line_ibm.htm

- Basic Computer Tutorial
- <http://www.comptechdoc.org/basic/basicut>

- Barcodes
- http://www.gripon.com.au/?gripon=tutorial_learningaboutbarcodereaders

- Surge Protectors
- <http://computer.howstuffworks.com/surge-protector.htm>

- Keeping Virus Protection Program Updated
- <http://www.aarp.org/learntech/computers/howto/a2002-07-18-upgradevirus.html>

- Identifying Cables/Cords
- http://www.internet4classrooms.com/cable_help.htm

- AARP – USB Hard Drives
- http://www.aarp.org/learntech/computers/videos/usb_hard_drives.html

- How Stuff Works: How USB Ports Work
- <http://computer.howstuffworks.com/usb.htm>

- Victoria Police IT Traineeship – Backup Power Supplies
- http://online.nmit.vic.edu.au/police/hardware/2_1index.htm

- Xtra: Help! How to Run a Scan Disk
- <http://www.xtra.co.nz/help/0,,6156-1403167,00.html>

- Internet 4 Classrooms: Defragging Your Machine
- <http://www.internet4classrooms.com/defrag.htm>

- WebJunction: Setup and Maintenance: Preventing Trouble on Windows through Regular Maintenance
- <http://www.webjunction.org/do/DisplayContent;jsessionid=2F07CDB59AB5896528C0A7E4FBB7270?id=8504>

- Windows XP: Using a Wireless Laptop at Work and at Home
- http://www.microsoft.com/windowsxp/using/tablet/tpc/expert/russell_tabletlaptop.msp

- Geek to Live: Set Up a Home Wireless Network
- <http://lifehacker.com/software/wifi/geek-to-live-set-up-a-home-wireless-network-162754.php>
- How Stuff Works: How Routers Work
- <http://computer.howstuffworks.com/router.htm>
- How Stuff Works: How WiFi Works
- <http://computer.howstuffworks.com/wireless-network.htm>

Library and Office Equipment Competencies

Training provided in-house or through online manuals by checking manufacturer's websites.

- Connect and use a data projector
- http://www2.noctrl.edu/library_ncc/instructional_media/laptop/toshiba.htm
- Connect and use a data projector for Macs
- <http://guilford.edu/assets/pdf/admin/its/MacProjectorHookup.pdf>

Internet Competencies

- Windows Internet Explorer
- <http://www.microsoft.com/windows/products/winfamily/ie/default.mspx>
- Mozilla Firefox
- <http://www.mozilla.com/en-US/firefox/>
- Safari
- <http://www.apple.com/safari/>
- Opera
- <http://www.opera.com/download/index.dml?platform=mac>
- Learn the Net
- <http://www.learnthenet.com/english/animate/animate.htm>
- <http://www.learnthenet.com/english/section/www.html>
- Net Tutor
- <http://liblearn.osu.edu/tutor/>
- Looney Tunes Teach the Internet
- <http://www.warnerbros.com/ltti/homepage.html>
- Many more links to tutorials available at RefDesk.com
- <http://www.refdesk.com/factbeg.html>

- Library's Internet Use Policy: Your Library website or your system's website (can be found by google or clicking on "home" icon)
- Your library's Internet Service Provider can be found out at the library.
- Recognizing security issues, privacy, and intellectual property issues are covered here to some extent, but in greater detail in other Competencies.
- *Locating websites:* www.google.ca
- Alberta Municipal Affairs and Housing, Libraries Section
- http://www.municipalaffairs.gov.ab.ca/mc_libraries.cfm
- The Alberta Library's website:
- <http://www.thealbertalibrary.ab.ca/>
- TAL Online:
- <http://www.talonline.ca/searchalberta/index.jsp>
- Ask A Question:
- <http://www.thealbertalibrary.ab.ca/viewChannel.asp?channelID=12>
- Learning 2.0 Identifying examples of and use: wikis, blogs, RSS, podcasts, and more:
- <http://plemcl2-things.blogspot.com>
- AARP: Using RSS Feeds
- <http://www.aarp.org/learntech/computers/howto/a2004-07-21-rssfeed.html>
- PC World-Internet Tips: How to Play it Safe with the Right Browser
- <http://www.pcworld.com/article/id,111655-page,1/article.html>
- CERT: Securing Your Web Browser
- http://www.cert.org/tech_tips/securing_browser/
- Identify whether your library filters content on your browser
- http://www.cippic.ca/en/faqs-resources/internet-censorship-public-libraries/#faq_find-out-blocking

E-mail Competencies

- Net Tutor – E-mail Basics
- <http://liblearn.osu.edu/tutor/les9/>
- Learn the Net
- <http://www.learnthenet.com/english/section/email.html>
- Media College E-mail Tutorials
- <http://www.mediacollege.com/internet/email/>

- Looney Tunes Teach the Internet (“Electronic Mail”)
- <http://www.warnerbros.com/ltti/homepage.html>
- Bounced messages
- <http://www.webpan.com/customers/bounces.htm>
- Outlook (choose the version that applies to you)
- <http://office.microsoft.com/en-us/outlook/default.aspx>
- Outlook: Email (rules, filters, receipts, flagging/marking messages).
- <http://office.microsoft.com/en-us/outlook/CH062556091033.aspx>

For Macs

- Using Mac OS X Mail
- <http://www.apple.com/support/tiger/mail/>

Computer Workstation and ILS Competencies

- For circulation, cataloguing, acquisitions, etc.
- Identify your library’s ILS vendor; e.g., Dynix, Horizon, etc.
- Talk to your local system for help, or check their website (through Google or link from home page)
- Check vendor websites (through Google or specific website if known).
- Northern Lights has some tutorials: <http://www.nlls.ab.ca/index.htm>
- Check links under “General Resources” and “Tools”.

Software Competencies

- Internet 4 Classrooms
- Variety of program tutorials:
- <http://www.internet4classrooms.com/on-line2.htm>
- *Microsoft Word:*
- http://www.internet4classrooms.com/on-line_word.htm
- *Excel:*
- http://www.internet4classrooms.com/online_excel.htm
- Florida Gulf Coast University Office 2000
- <http://www.fgcu.edu/support/office2000/index.html>
- File Extensions
- <http://www.helpwithpcs.com/courses/filenames.htm>
- Digital Reference Overview
- <http://www.ukoln.ac.uk/public/nsptg/virtual/>

- Ask a Question
- <http://askaquestion.ab.ca/>

- Software Options for Special Needs Patrons:
 - Visunet/CNIB Library
 - <http://www.cnib.ca/en/services/library/Default.aspx>

 - Web Junction – Making Computers Accessible
 - <http://webjunction.org/do/Navigation?category=526>

- Time-Out Software: specific to the software your library has installed
- <http://libraryjournal.com/article/CA286654.html>

- CD-ROM burning software – Webopedia
- http://www.webopedia.com/DidYouKnow/Hardware_Software/2002/CDBurning.asp

- PC Guide: CD-ROM drives
- <http://www.pcguides.com/ref/cd/>

- Microsoft Office Online: Print a Document
- <http://office.microsoft.com/en-us/word/HP051895811033.aspx>

- *Printing documents and using Print Preview*
- Florida Gulf Coast University: Word 2000 Tutorial “Page Formatting”
- <http://www.fgcu.edu/support/office2000/word/page.html>

- *Installing/Uninstalling programs*
- <http://liblearn.osu.edu/tutor/les8/pg4.html>
- <http://www.microsoft.com/mspress/books/sampchap/6271.aspx>

- *Installing/Uninstalling printers (and other peripherals)*
- Internet 4 Classrooms:
- http://www.internet4classrooms.com/share_printer.htm

- Geeks.com
- http://www.geeks.com/techtips/ttpdfs/Geeks.com_Tech-Tip%2092%20-%20Installing%20Computer%20Peripherals.pdf

- WebJunction: “Preventing Trouble By Properly Installing Software”
- <http://www.webjunction.org/do/DisplayContent;jsessionid=2F07CDB59AB5896528C0A7E4FBB7270?id=8504>

- *Social Software/Web 2.0*
- PLCMC Learning 2.0 “23 Learning 2.0 Things”
- <http://plcmcl2-things.blogspot.com/>

- Common Craft
- <http://www.commoncraft.com/>

- *Web Conferencing Software*
- Choosing Web Conferencing Software
- <http://thinkofit.com/webconf/wcchoice.htm>

Operating System Competencies

- Internet 4 Classrooms: Windows/PC
- http://www.internet4classrooms.com/on-line_ibm.htm
- http://www.internet4classrooms.com/entry_level_pc_index_ie.htm

- Florida Gulf Coast University: Word 2000
- <http://www.fgcu.edu/support/office2000/word/>

- Electric Teacher: Word
- <http://www.electricteacher.com/tutorials.htm>

- Alverno College File Management Tutorial
- <http://depts.alverno.edu/cil/mod1/filemgt/index.html>

- *Setting up or changing passwords*
- Microsoft Office XP “To Create a User Password”
- http://www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/usercpl_manage_passwords.mspx?mfr=true

- Wellesley College “Setting up or changing passwords in Windows 2000/XP”
- <http://www.wellesley.edu/Computing/LocalPasswords/w2kxp.html>

For Macs

- Using Mac OS X Mail
- <http://www.apple.com/support/tiger/mail/>

- Mac OS X Overview
- <http://www.apple.com/macosx/overview/>

- Software Support
- <http://www.apple.com/support/software/>

Database Search Competencies

- Identify the licensed electronic resources at your library/region’s website.

- Net Tutor “Specialized Databases”
- <http://liblearn.osu.edu/tutor/databases/>

- Boolean Search Tutorials:
- <http://library.nyu.edu/research/tutorials/boolean/boolean.html>
- <http://www.uaf.edu/library/instruction/ls101/catalogs/Boolean.html>

- Thomson Gale Tutorials
- <http://www.gale.com/tourguide/>

- EBSCO Tutorials
- <http://support.epnet.com/training/tutorials.php>

- Micromedia ProQuest
- http://il.proquest.com/products_pq/training/

- In any of the databases, there is a “Help” or “Tour” or “Quick Guide” feature to help you navigate that particular database.

- Becoming familiar with which databases are located on your library’s website where, as well as which are available remotely will have to be practiced in house, as each library’s website is unique.

- Identify which databases are part of the TAL core
- <http://www.thealbertlibrary.ab.ca/viewPosting.asp?postingID=52>

Network Competencies

- TechSoup: Networks
- <http://www.techsoup.org/learningcenter/networks/index.cfm>

- An Educator’s Guide to School Networks
- <http://fcit.usf.edu/network/>

- Identifying Cables/Cords
- http://www.internet4classrooms.com/cable_help.htm
-
- About.com – Networking
- http://compnetworking.about.com/od/basicnetworkingconcepts/Networking_Basics_Key_Concepts_in_Computer_Networking.htm

- Webjunction: Networking Essentials:
<http://ct.webjunction.org/do/Navigation?category=442#NetworkingSeries>

- Networking 101
- <http://slo.minds.tv/>

- Save and/or share files to a designated area on the network
- [http://www.hickman.k12.ky.us/documents/Saving%20Files%20to%20Your%20Network%20Folder%20\(Student\).doc](http://www.hickman.k12.ky.us/documents/Saving%20Files%20to%20Your%20Network%20Folder%20(Student).doc)

- Microsoft Office Online “Save a Document”
- <http://office.microsoft.com/en-us/word/HP051890841033.aspx?pid=CH060831621033>

- Microsoft Office Online “About Saving Documents”
- <http://office.microsoft.com/en-us/word/HP052419341033.aspx?pid=CH060831621033>

- Contact your system for support.

Security Competencies

- Victoria Police IT Traineeship – Virus Protection
- http://online.nmit.vic.edu.au/police/hardware/3_1index.htm
- Web Junction: “Achieve Network Security”
- <http://webjunction.org/do/DisplayContent?id=988>
- WebJunction – Computer Security
- <http://webjunction.org/do/Navigation?category=528>

Allows you to link to the following topics:

- Protecting Against Viruses
- Protecting Your Network
- Protecting Your Workstation
- Security Strategy
- WebJunction: Protecting and Restoring Software and Data (lockdown software, Deepfreeze, etc.)
- <http://de.webjunction.org/do/DisplayContent;jsessionid=56AF1A00E65338FA8A231D191F3FF6D7?id=978>
- Clearing cookies and temporary files from the Internet cache
- <http://www.microsoft.com/windows/ie/ie6/using/howto/customizing/clearcache.msp>
- Contact your system’s network administrator, or visit the system’s website for policies on security.

Troubleshooting and Maintenance Competencies

- WebJunction: Troubleshooting Checklist
- <http://ct.webjunction.org/do/DisplayContent;jsessionid=0FE686E1E8D7360FAE63B20D0ADAD3F9?id=1463>
- WebJunction: Setup and Maintenance: Preventing Trouble on Windows through Regular Maintenance (includes running a scan disk or check disk and defragging)
- <http://www.webjunction.org/do/DisplayContent;jsessionid=2F07CDB59AB5896528C0A7E4FBBD7270?id=8504>
- Looney Tunes Teach the Web - Troubleshooting
- <http://www.warnerbros.com/ltti/trouble/marvin1.html>
- Internet 4 Classrooms – Troubleshooting PCs
- <http://www.internet4classrooms.com/support.htm>
- Computer equipment cleaning & dealing with power failures
- <http://online.nmit.vic.edu.au/police/hardware/resources.htm>
- Cleaning the hard drive and using the Recycle Bin

- <http://www.internet4classrooms.com/clean.htm>
- Virus Protection:
 - Check what type of virus protection program you have installed (McAfee, Norton Antivirus, AVG, etc.) and find their web site.
- Keeping Virus Protection Program Updated
 - <http://www.aarp.org/learntech/computers/howto/a2002-07-18-upgradevirus.html>
- Installing Updates:
 - <http://support.microsoft.com/kb/311047>
- WebJunction – Protecting Against Viruses
 - <http://webjunction.org/do/Navigation?category=508>
- Check with your system.
- Online Manuals:
 - Example: Northern Lights Library System
 - <http://www.nlls.ab.ca/index.htm>
 - Select “Staff Resources”, then look under “Tools” for online manuals/computer resources.

Responsible and Ethical Use Competencies

- Canadian Copyright Law FAQs
 - <http://www.cippic.ca/en/faqs-resources/copyright-law/>
- Freeware: definition by Webopedia
 - <http://www.webopedia.com/TERM/f/freeware.html>
- Shareware: definition by Webopedia
 - <http://www.webopedia.com/TERM/s/shareware.html>
- Commercial Software: definition by ComputerHope.com
 - <http://www.computerhope.com/jargon/c/commsoft.htm>
- Techsoup: Understanding licensed software in the library
 - <http://www.techsoup.org/learningcenter/software/page5350.cfm>
- Media Awareness Network Internet Use and Policies
 - http://www.media-awareness.ca/english/special_initiatives/web_awareness/wa_librarians/professional/internet_use_policy.cfm
- Technology Issues – many links
 - <http://www.ualberta.ca/~aschrade/internet/resources.htm>
- WebJunction: Library Wireless Security and Safety
 - <http://webjunction.org/do/DisplayContent?id=11038&source=rss>

- Check your library or system's website for Policy and Legislation.

Assistive Technology Competencies

- WebJunction: Making Computers Accessible
- <http://webjunction.org/do/Navigation;jsessionid=1D8F2B1D2816823F92403238935634D3?category=526>
- CNIB (Canadian National Institute for the Blind)
- <http://www.cnib.ca/en/Default.aspx>
- *Identify and use special software/products*
- Aroga products (Low vision, blindness, communication aids, physical access, special education, education)
- <http://www.aroga.com/products.asp>
- DAISY: Digital Accessible Information System
- <http://www.daisy.org/>

Ongoing Competencies

- Keeping up with current technology in libraries: *Web Junction*
- <http://webjunction.org/do/Home>