# What to Check Before You Call a Tech: A Computer Workstation Primer OLSSI (Ohio Library Support Staff Institute) – August 2003

# **Contact Information:**

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# **Biographical Information for Corey Seeman**

Since, May 2001, Corey has been an Assistant Dean for the University Libraries at the University of Toledo in Ohio. Hired as Assistant Dean for Library Systems, his title changed to Assistant Dean for Resource and Systems Management in July 2003. Corey is currently responsible for the technical services areas of the library including cataloging, acquisitions, serials, and processing as well as technology areas such as systems and desktop support for the Library facilities. During much of the first two years at the University of Toledo, Corey was the sole inhabitant of the systems department and learned a great deal about diagnosing and fixing computer problems. Previously, he served for over two years as a library training consultant for Innovative Interfaces, working with over 15 libraries directly on system migrations from a variety of systems (including DRA, Dynix, Voyager, GEAC, etc.) to INNOPAC. As library training consultant, Corey served as the primary on-site contact with the company, trained the staff on the use of the system, and worked closely with the libraries after they "went live" after the early stages of implementation.

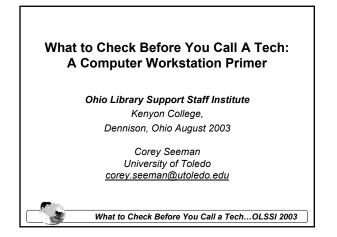
Prior to that position, Corey held department head positions in technical services and archival processing at the Historical Society of Western Pennsylvania (Pittsburgh, PA), and the National Baseball Hall of Fame Library (Cooperstown, NY). He has presented numerous papers at conferences including: Midwest Archives Conference, Society of American Archivists, American Association of Museums, national & regional Popular Culture Associations, and North American Society for Sport History. He has recently published articles in Collection Management, Library Journal and Computers in Libraries. For a full list of articles and presentations, please see: <a href="http://www.cl.utoledo.edu/userhomes/cseeman/cseeman.html">http://www.cl.utoledo.edu/userhomes/cseeman/cseeman.html</a>

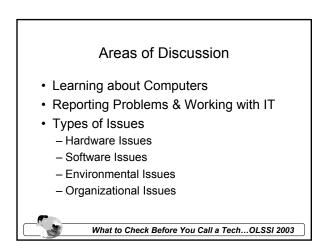
# Handout Contents:

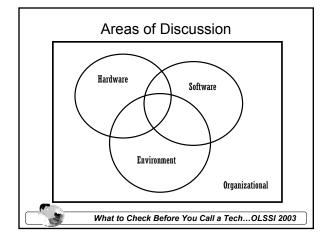
- Contact & Biographical Information
- PowerPoint Presentation
- ALAO Handout (Written by Barb Anderson & Tony Gholson, Case Western University, Cleveland, Ohio for the ALAO Annual Meeting, Fall 2002 (Includes Resources, suggestions, and tips for Windows and Mac Computers)

Updated Powerpoint Slides at: <u>http://library.utoledo.edu/userhomes/cseeman/presentations/OLSSI\_Seeman.pdf</u>

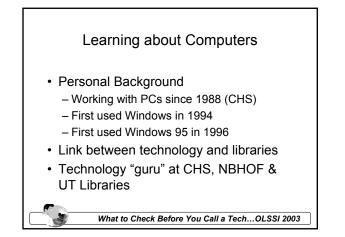
or from presentations page at: http://library.utoledo.edu/userhomes/cseeman/











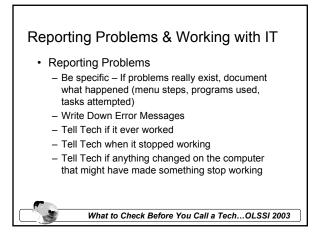
# Learning about Computers

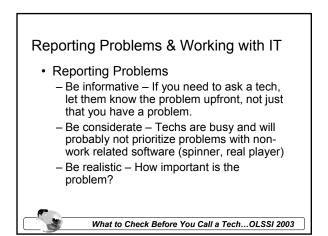
- Keeping your sanity
  - Try to keep people on the same generation of the software. (Operating system at UT)
  - Telnet Software
  - MS Office
- Stay in sync with your organization & IT
- Upgrade when you have time to address issues (drivers, etc.) – Move at your own pace.
- Communicate issues related to change to staff.

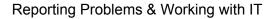
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# Learning about Computers

- How to learn
  - Be brave!!!!!!!!!!
  - Remember what you did that worked and what did not work.
  - Apply knowledge to future problems.
  - Use available resources (online).
  - Always take advantage of a situation to learn (especially from the IT people).

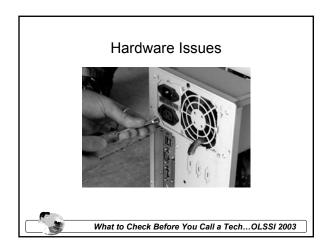




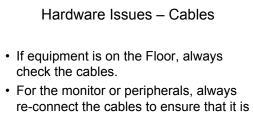


Things to Ask Your Tech

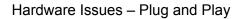
- Do I have the latest software used by this institution?
- · Do I have the most recent service pack?
- Do I have up to date virus protection?
- · How do you want to handle problems?



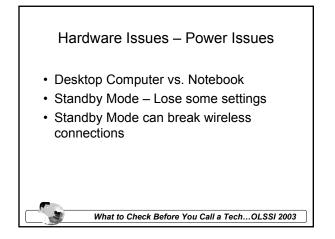


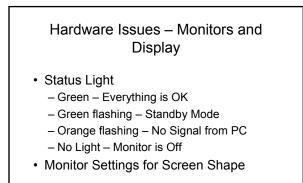


- re-connect the cables to ensure that it i not the problem.
- Sometimes it is the interior board Leave for the tech.



- · What does it mean?
- What does it do?
- Why doesn't it always work?
- Why might I need different drivers?





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# Hardware Issues – Monitors and Display

- Display Properties (right-click on screen or go to Control Panel)
- Screen Size (800x600 used to be standard – Now towards 1024x768)
- Colors 16bit used to be less
- Screen Savers -- KISS

# Hardware Issues - Peripherals

- · Any extra equipment attached to a computer:
  - Barcode Scanner
  - Printers
  - External Hard Drive
  - External CD-ROM Writer
  - Document Scanner
  - Keyboards
  - Mice

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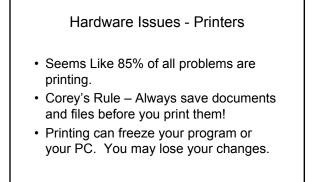
# Hardware Issues - Peripherals

- Overall Issues:
  - Check Connections Loose Connections can kill a computer.
  - Check Cables Some look like the right kind but are not (SCSI v. Parallel)
  - Check Ports (COM 1/COM 2) USB Has made this easier.
  - USB Connections Flexible
  - USB Cables connectors, extensions)

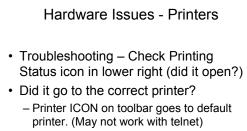
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## Hardware Issues - Barcode Scanners

- · Test the Scanner
  - Notepad or Wordpad (also works with Mag-stripe reader)
  - This will show prefix, suffix, carriage return
  - Splitter cables can wear out.



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 Print choice from menu lets you select printer.

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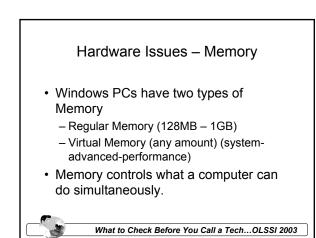
# Hardware Issues – Keyboards

- Computer will not boot without a Keyboard.
- You get a keyboard error. Check cables.
- NUM Lock & CAPS Lock Problems
- If keys are stuck, ask your tech.
- Little to fix on a keyboard...need to replace.

## Hardware Issues - Mice

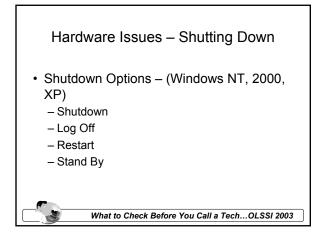
- Computer will boot without a Mouse, but will be difficult to use.
- Clean manually for ball.
- Make sure software is setup for mouse. If it is looking for a scroll ball, and there is not, it will skip on the screen.





# Hardware Issues – Shutting Down

- DOS Did not need to shut down the PC.
- Windows 95 and forward Need to systematically shut down the computer.
- Without shutdown, system does scan disk upon startup (power off before shutdown is complete & auto power off)



Hardware Issues – "Defrosting a Computer"

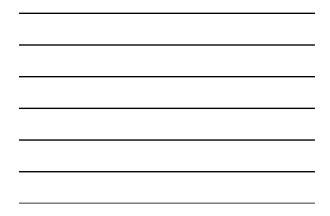
- Computer Freezes Causes
- Computer Freezes Solutions
  - Control-ALT-Delete (sometimes will not work)
  - Power off (press and hold power button)
  - Remove the power cord in back.

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# Hardware Issues - Cleaning

- Regular Maintenance
  - CD-ROM Lens Cleaner
  - Air Cans for dusty computers
  - Small vacuum for printers (toner)
  - Wipes for monitors and surfaces.



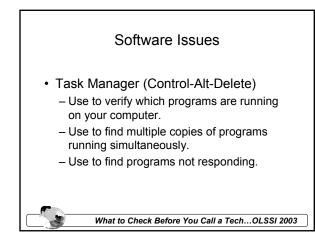


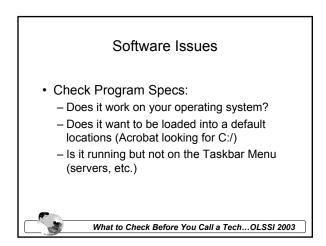
# Software Issues – General Comments • Good idea to restart PC after software is installed. • Verify programs are installed correctly. • Finish updating the registry. • Leave Install Program available until you are sure it is working. • Do not place the install program with the shortcut (may install twice)

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# Software Issues – General Comments

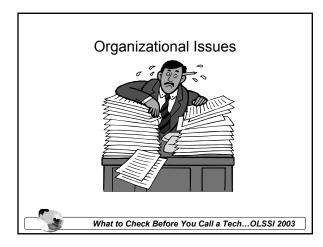
- Software from Home
  - Be careful with software you purchased separately or brought in from home.
  - Some software installs can "break" your computer and make printing or other programs not work.
  - Do not exceed your software licenses by installing on every computer.
  - Be careful with illegal software.





Software Issues - Scan Disk & Defrag

- Scan Disk checks for Errors
- Defrag helps make the computer run more effectively (98/ME)
- Start -> Programs -> Accessories -> System Tools





# Organizational Issues - General

- Organizing your Files & E-mail
- Role of My Documents
- Organizing into Folders and Sub-Folders
- Create Backup Space off of My Documents Keeps things clean
- · Keep consistent file names
- Use different view options on the screen.

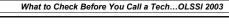
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# Organizational Issues - File Naming

- · Keep consistent file names
- Default is typically first portion of the document.
- For non-alphanumeric files, use only "-" or "\_" Do not use "." or "/"
- Let software dictate extension but make sure that it is what you want.
- · Be wary of jpg or jpeg or JPEG differences

# Organizational Issues - File Types

- Read-Only Files How to change.
- Common Extensions doc/txt/jpg/xls
- Default Program to open files of a certain type. – Set under File Options



Organizational Issues – File Locations

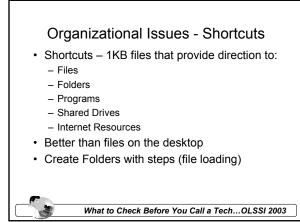
- Programs have Default Locations to save (maybe C:\My Documents\ or D:\Files). Never save in the program directory.
- Finding Files Search Search by text, time, file name, or data within a file.

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# Organizational Issues – File Locations

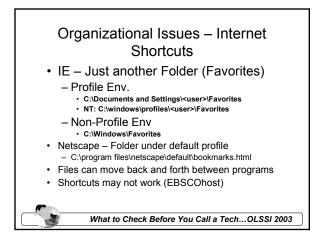
Desktop – Just another Folder

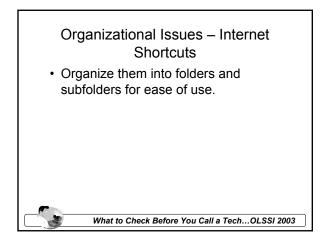
- Profile Env.
- C:\Documents and Settings\<user>\Desktop
- NT: C:\windows\profiles\<user>\Desktop
- Non-Profile Env
- C:\Windows\Desktop

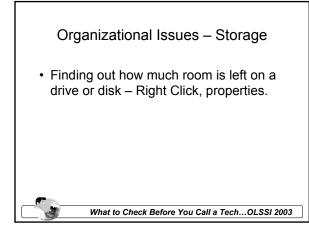


# Organizational Issues - Shortcuts

- Shortcut Problems
  - Shortcut to something that does not exist.
  - Shortcut to a program that is not accessible by your user account.
  - Save shortcut, not the file.
  - Recent Documents Not Found (deleted/moved)
- Shortcut Opportunities
  - Better manage current copies of documents

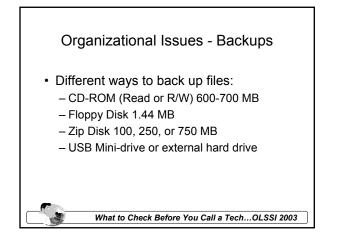


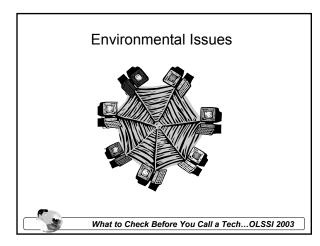




# Organizational Issues - Backups

- Create Backup Space off of My Documents – Keeps things clean
- Be careful about date. It might be the date that it was written to a disk, not when it was created.
- Backup your files and documents.





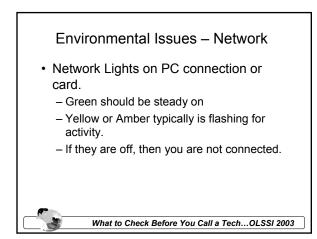


# Environmental Issues – User Rights Windows NT/2000/XP Administrator Power User User Guest Your IT will setup your rights.

# Environmental Issues - Network

- If an Internet service does not work (OCLC, web page or Library Catalog), there are many problems that might be present:
  - Check Network Cable & Connection
     Try common website (yahoo, cnn, etc.)
  - Use PING or "ipconfig" to see if the computer or the server are on the network.

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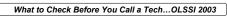


# Environmental Issues – Power Strips

- · Power Strips work differently.
- Older Power Strips will not supply power without hitting the reset button.
- Common Source of Problems.

# Questions?

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# What to Check Before You Call A Tech

# Written by Barb Anderson & Tony Gholson, Case Western University, Cleveland, Ohio

# ALAO Annual Meeting, Fall 2002

There are three causes for computer problems.

- 1. Something is wrong with a piece of hardware.
- 2. Something is wrong with a piece of software. Software includes your operating system and all the programs you have on your computer.
- 3. You have done something wrong causing a malfunction.

Hopefully this checklist will help you correct any problems resulting from the last category and will give you additional information to assist a Help Desk technician diagnose and correct any problem resulting from either of the first two categories that you are unable to correct without them.

Libraries are now offering more and more material and material formats than ever. Indexes are more often electronic than tables full of regularly issued "books" and are just referred to as databases by most people. The distinction between indexes and the data itself has become more blurred as both are available electronically. Both indexes and databases are found under common headings and this adds to the confusion. The same terminology may mean one thing to the staff member and another to the patron so always be aware of the possibility of miscommunication, especially when dealing with electronic resources.

Libraries often receive messages (via email, the phone and in person) that patrons are having access problems. There are many reasons for this sort of comment and it is vital to make sure that you understand what the patron was doing and what the problem was. If they are unclear with the terminology they may actually be asking for assistance in search techniques for a specific database, but the problem sounds like an access problem to begin with. A checklist for "access problems" is included to help determine what the problem is and how to address it.

# GENERAL CHECKLIST:

- 1. Is your computer plugged in? This isn't as stupid as you might think—the cord could have gotten bumped by furniture, feet, or cleaning equipment and become loose or disconnected without your actually unplugging it yourself.
- 2. Are all the connectors connected firmly? Again, the connections could have become loose or disconnected inadvertently and this is a quick check.
- 3. If you have any of your equipment connected to a surge protector, has it blown, or is it turned off? You could have experienced a surge that tripped your protector and it needs to be replaced to again protect your equipment.

- 4. Have you closed all the programs you have open and restarted your computer?
- 5. If restarting your computer did not help, turn the computer off and leave it off for at least 60 seconds before turning the power back on.
- 6. If your computer appears to be trying to boot from either a floppy drive or the CD drive, be sure nothing is in the bays as a non-system disk may be in the drive. If this is the case you probably want to change the boot disk order in your BIOS. If this last sentence makes no sense to you, contact your technical support group to ask them to check the boot order in your BIOS to avoid unnecessary problems.
- 7. Know where FAQ (Frequently Asked Questions) can be found that might help to track down problems. This may include some specific to your institution, some specific to a program you are using, etc. Having FAQ pages bookmarked for quick reference is a good idea and a good place to start looking for answers when you encounter difficulties.

# PC SYMPTOM-DRIVEN CHECKLIST:

# You are unable to get the computer to turn on and you have checked all the electrical connections and all cables and network connections for your computer:

- Call your computer support help desk for assistance. Be able to tell them as much of the following information as you can:
  - When the problem started, or at least the last time you were able to use the system.
  - Did you hear any unusual sounds (grinding, loud fan, etc.) when you tried to turn the computer on?
  - Was there no noise at all from the CPU when you turned it on?
  - Did any of the lights come on indicating the CPU and/or monitor is powered up? The monitor may have been turned off.
  - What operating system your computer is using. (Windows 98, NT, 2000, ME, XP, etc.)
  - What anti-virus software you are using and when the last update to the signature file (LiveUpdate in Norton, for instance) was run on your system, as well as when the last system scan was run on your system.
  - If you have recently installed any software or downloaded any file to your computer be sure to mention this and tell the help desk staff what it is.
  - If any unusual situation has occurred recently (thunderstorm, power outage, etc.) be sure to mention this.

It takes longer than usual to connect to a website or link in your browser (Netscape and Internet Explorer are the two most commonly used browsers).

 Browsers cache a copy of pages that you visit. If you return to a page and a copy of it is still in your computer's memory, it will display from the cache copy rather than going out to the internet to request the page, unless you select reload/refresh to get a current copy of the page.

- If it starts to take longer than usual to connect to a page, your cache may be full or close to it. Emptying the memory cache and the disk cache may speed up your response.
- You may want to consider modifying the size of the cache files defined for your browser. Check with the support staff to find out what size works well for your particular installation and network.

# You are able to start your computer, but programs and/or browsers are crashing frequently, or response is becoming slow.

- Is there a reason to believe that more people are connecting to your network? (It is the beginning of the semester, nearing mid-terms, nearing finals, etc.) If that is the case you will just need to be patient as network congestion will slow response down for any connection outside of your own computer. Your help desk is often aware of network slowdowns if it is causing problems. While they may not be able to help correct the situation, at least knowing the cause can lessen your frustration.
- If it is near noon on the East coast, you may be seeing evidence that California is waking up and beginning their business day. It is not uncommon for Internet connections to slow down as the West coast begins to connect to their computers to start their days.
- Your hard drive may have developed a bad spot on it, or may be quite fragmented. Many of the programs in use currently are graphically intensive. This can cause the hard drive to become fragmented, causing slow response time or programs to crash.
  - In most Windows operating systems you will be able to scan the hard drive for errors and defragment the hard drive yourself. If you are running NT you must have a utility program installed on your computer to defragment a drive. In NT, 2000 and XP you need to have administrative access to the system to access these functions, or have been granted access by the administrator of the computer so you may or may not be able to do this yourself, depending upon your environment.
  - It is best to scan the drive for errors prior to defragmenting it. Windows 2000 includes scan disk in the defragmentation program so it does not require a separate step. When you scan the drive to check for errors, check the box to have the system repair any errors it finds.
  - If the basic scan uncovers any errors, it is best to rerun the scan in the "thorough" mode before going any further.
  - When you are running the defragmentation program it is best to close down all other programs and disable your screen saver to allow it to run to completion without any system interruptions.
  - Once you have completed the defragmentation, restart your computer rather than continuing from the same session.

# Your computer boots up but there is nothing on your monitor.

- Make sure the monitor is turned on. Generally there is an indicator light on the front of the monitor.
- If the monitor light is on, make sure the settings have not been bumped or otherwise adjusted to overly dark. (This is not as common a practical joke to play on someone as it once was, but it still happens for one reason or another) Most monitors allow you to select a lightness/darkness setting to suit your preferences

and this is indicated often by a stylized sun (circle surrounded by rays) or a circle that is half light and half dark.

- If you see a message that indicates no signal is present, make sure the monitor is connected to the CPU and all connectors are firmly connected.
- If your monitor has been getting slightly darker, or the display has been blurry in any way, it may have just died of old age. Connecting another monitor to your system is the quickest check to see if it needs serviced or replaced.

# You are unable to open a file.

- If the file is on a floppy disk, ensure there is adequate free space on the disk. This is more common with removable media than the hard drive, but it can also occur on your hard drive. When you open a file to edit it, the program (Microsoft Word, Corel WordPerfect, etc.) makes a copy of the file and all your changes are made to this copy rather than the file itself. This is why you are asked if you want to save your changes if you have not specifically saved the file when you exit the program. If you do not have more than enough space to copy the file in the directory where it is located (or on the floppy where it is located) you will not be able to open the file.
- If the file is on a floppy disk make sure it is not read/write protected. There is a little slide by the square shaped hole to indicate if a disk is write protected or not.

# You are unable to open a file someone has sent you.

- The person that created the file may be using a more updated version of the program used to create it than you are.
  - In most programs you have both a "save" and a "save as" option. One of the things you can specify when you select "save as" is the format to use. Ask the person to save the file in an earlier format (WordPerfect 5 seems to be a universally readable format unless you have a non-standard word processing or a very old one yourself.)
- The person may have saved the file with an unrecognized suffix. The suffix indicates the type of file (.txt is an ASCII text file, .doc is a Word document, .wpd is a WordPerfect document, etc.)
  - This can be caused by attempting to use periods when you name a file. The system will try and interpret the letters following the first period it encounters as the file extension. You can either open the program and point to "all file types" and open it, or attempt to rename it. Either way you should save the file under another name once you are able to open it to prevent further problems.

# Access Problems

If a patron is unable to connect to your library resources, there are several questions you should start with:

Ascertain whether the patron is on campus or off campus. Your campus network uses a particular set of IP address ranges for the computers connected to it. A Class B network is of the form 123.123.\*.\* which indicates that any IP address that begins with 123.123. is on that network. It is possible that a building or institution has affiliation with your campus but uses their own network, so verifying **where** a patron is "on campus" may be necessary for some locations. OhioLINK has a webpage that returns the IP address as well as browser type and version when it is entered from any browser on any computer. This is much easier than remembering where to find this information on several different operating systems and works for both PCs and Macs. This very useful URL is: www.ohiolink.edu/cgi-bin/whereami.pl

If the user is on campus, ask if they are able to connect to other addresses. See if they can connect to an address that is off-campus (preferably one they have not visited to avoid misinterpreting a page served from the cache memory as making an off-campus connection), another on-campus address, another library address, and a different database. It is handy to have some URLs to ask them to try. I like HP's site as it is nice and short and not one that most library patrons have been to: www.hp.com.

If they are able to connect to the on-campus sites but nothing off-campus you are probably experiencing network problems that prevent off-campus communications from taking place. If there is only one database (or a group of databases from the same vendor) that they are unable to connect to, see if you are able to connect from your computer. If neither computer is able to connect (you get asked for a username and password in most cases), you will want to contact the database vendor to see if there is a problem with your account.

If the user is off campus, there are some additional questions you should ask:

- Are they connecting to the Internet with AOL? If so, have they downloaded and installed another browser (either Netscape or Internet Explorer) and are they using that browser rather than the one provided by AOL? (The browser AOL provides is not a full featured browser and does not play well with others if you are trying to establish an authenticated connection.)
- How are they connecting to the Internet?
- How are they authenticating themselves as a patron of your library?
  - For OhioLINK members, are they starting from the OhioLINK site and identifying themselves as affiliated with your institution? Did they receive any error messages during the process? For more troubleshooting please reference the OhioLINK Remote Authentication FAQ at www.ohiolink.edu/about/api-faq.html.
  - Is the database they are trying to use one that is available through OhioLINK, or is it one your institution has purchased? Authenticating through OhioLINK will not provide access to any locally purchased resources.
  - Is your institution using a product from your ILS vendor to enable remote access and authentication? If so, talk with the person that administers the system to verify that all settings are correct.

 Is your institution providing remote access capabilities through a proxy server or by using VPN (Virtual Private Network)? If your institution is using a proxy server, find out who is maintaining it and make sure all entries are correct and up to date to enable access to the proper resources. Know where the instructions for any configuration a patron may need to set on their home computers are located and refer patrons to them.

# MAC SYMPTOM-DRIVEN CHECKLIST:

Just when you are feeling sorry for those Windows users whose computers crash all the time, your tried and true Mac freezes. Well, even Macs have some problems. Here are a few tips for dealing with a troublesome Mac.

First, remember to check the cables. Most folks think that either the cable is attached properly and the machine is working or it is not attached and the computer will not work. In reality, a loose cable can have unusual affects.

# Acting Strange

If your computer is still responding but has slowed down or is acting "strange," the first thing to do is to close all applications that you are not using. Click on the Applications Menu (the icon on the top far right), and a drop-down list will show you all the running applications. Running too many applications can tie up memory and confuse the computer. Highlight the application you want to quit, then select Quit from the File Menu, and close all applications that you don't need.

# Frozen Desktop

First of all, be patient. When the mouse doesn't seem to respond, sometimes the computer is simply working in the background. Wiggle your mouse around. If the cursor on screen moves and/or it has changed into a clock whose hands are moving, you may have to wait for the computer to complete its tasks.

Still having a problem? Or the computer is really frozen? Type Command +Q to try to close the program. If that doesn't work, press Apple-Option-Escape together at once. This will usually force any errant program to close. A window will appear asking if you really want to quit. Choose OK. You will lose any unsaved work, but this may be your only escape.

# Reboot

For Mac models other than the iMac, you can try a soft boot by pressing CTRL+Command+the Power On key at the same time. To restart the iMac, unbend a paperclip, and open the little door on the side of the iMac. Then insert the end of the paperclip into the tiny hole with a triangle label above it. You can also use the power button to restart your computer. Rebooting the computer will clear out much of the junk that has accumulated in it. However, rebooting without a proper shutdown should be used sparingly, rather than as a regular habit.

# Rebuild the Desktop

Another way to correct a messed up Mac is to rebuild the desktop. Restart your computer, and hold down the Apple and Option key while the computer starts. A box will appear asking if you want to rebuild your desktop. Select Yes or OK. (Say OK to any warnings that may appear.)

The desktop file keeps a record of all files and items added to or deleted from your hard drive. When you install or delete software, the computer adds the new information wherever it finds room. After a lot of use, the desktop file can start to look like a ten year old, handwritten address book. Rebuilding the desktop creates a clean, orderly index that helps the computer run much more smoothly. It is a good idea to rebuild the desktop occasionally. If you use your computer a lot, once a week is a good interval

# Internet Woes

Internet Explorer is notorious for freezing Macs because of a cache overload. The cache is where the computer stores recently visited Web sites. If you surf for long periods of time, you can fill up the cache, which may cause a lock-up.

If your Mac often freezes when on the Internet, go to Preferences and look in the Web Browser area. Choose Advanced. You will see a button where you can empty or clear your cache. (Older versions will find the Advanced button in the Edit menu.)

While you are there, you will also see a box showing the allowable size of the cache. By default, it is set to 5MB or 10MB. Increase the size to 50 MB or 100 MB, and see if that makes a difference.

# **Reliable Macs**

Macs have occasional problems. But the great word here is occasional. Historically, the Mac computer has a much more stable, reliable operating system. Mac users are spared the too-often reoccurring blue screen of death seen by many Windows users.

# Some Useful Sites:

# Terminology and Definitions:

- BABEL: A Glossary of Computer Oriented Abbreviations and Acronyms: http://www.cis.columbia.edu/glossary.html
- ComputerUser.com High-Tech Dictionary (more than 7,000 High Tech terms) http://www.computeruser.com/resources/dictionary/dictionary.html
- TechEncyclopedia (more than 20,000 IT terms) http://www.techweb.com/encyclopedia/
- Webopedia ("The #1 online encyclopedia dedicated to computer technology") http://www.webopedia.com/Top\_Category.asp

# Useful FAQ (Frequently Asked Questions) Sites:

Locate any relevant FAQ pages at your institution. They are often found on Help Desk, Networking, and Library pages. These will probably contain information very specific to your institution and should be a good starting point when you are troubleshooting any problem.

OhioLINK FAQ for Remote Authentication: http://www.ohiolink.edu/about/api-faq.html

# Some general Internet sites:

- History of the Internet and www: http://www.netvalley.com/intval1.html
- The Internet companion: A beginner's guide to global networking, 2<sup>nd</sup> edition http://archives.obs-us.com/obs/english/books/editinc/

LivingInternet.com http://www.livinginternet.com/?thome.htm

# Various resources for libraries:

- Resources for distance learning library resources http://www.lib.odu.edu/services/disted/dersrcs.html
- The Library Web Manager's Reference Center from the Librarian's Index to the Internet http://sunsite.berkeley.edu/Web4Lib/RefCenter/

# Various resources for computer maintenance and support:

- CNET.com (product reviews, newsletters, downloads, etc.) http://www.cnet.com/
- ZDNet (product reviews, newsletters, downloads, etc.) http://www.zdnet.com/

Windows NT/2000 FAQ (answers to frequently asked questions about Windows NT, Windows 2000, SQL Server, Exchange Server and Outlook, IIS and more) http://www.ntfaq.com/