

## 20 Technology Skills Every Educator Should Have

By Laura Turner

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During the last 15 years, we in education have moved at light speed in the area of educational technology. Whether we are involved in higher ed, secondary ed, elementary ed, or special ed, all of us find it difficult to keep up with fast-moving computer-based technology. Not since the introduction of the blackboard and overhead projector of equipment make such a difference in how we teach. Today, not only do we use computers, but we also use wireless laptops, and tablet PCs. In addition, we have the World Wide Web, scanners, CD burners, digital cameras and digital video cameras, PDAs, as well as video and DVD players. And most educators are now using technology including video, e-mail, desktop conferencing, online programs such as WebCT and Blackboard, and web conferencing-to teach. Thus, it is no longer acceptable for educators to be technology illiterate.

With that in mind, here is a comprehensive listing of the technology skills that every educator should have. As computer and associated technologies continue to change and evolve, educators must continue to learn and adapt in their work. Today that includes continued time and effort to maintain and improve their technology skills (and some educators do not want to admit).

**Here are 20 basic technology skills that all educators should now have:**

1. Word Processing Skills
2. Spreadsheets Skills
3. Database Skills
4. Electronic Presentation Skills
5. Web Navigation Skills
6. Web Site Design Skills
7. E-Mail Management Skills
8. Digital Cameras
9. Computer Network Knowledge Applicable to your School System
10. File Management & Windows Explorer Skills
11. Downloading Software From the Web (Knowledge including eBooks)
12. Installing Computer Software onto a Computer System
13. WebCT or Blackboard Teaching Skills
14. Videoconferencing skills
15. Computer-Related Storage Devices (Knowledge: disks, CDs, USB drives, zip disks, DVDs, et

16. Scanner Knowledge
17. Knowledge of PDAs
18. Deep Web Knowledge
19. Educational Copyright Knowledge
20. Computer Security Knowledge

## 1. Word Processing Skills

Educators should be able to use some type of word processing program to complete written tasks. See the following Web sites for helpful information and tutorials.

- **University of Alberta: Online Word Processing Tutorials**  
[www.quasar.ualberta.ca/edpy202/tutorial/wptut/wpweb.htm](http://www.quasar.ualberta.ca/edpy202/tutorial/wptut/wpweb.htm)  
This page is a collection of Internet links that provide word processing instruction.
- **Tutorialfind.com: Word Processing Tutorials**  
[www.tutorialfind.com/tutorials/computerbasics/wordprocessing](http://www.tutorialfind.com/tutorials/computerbasics/wordprocessing)  
This site has a number of word processing tutorials, and is also a portal for a variety of other resources.
- **2Learn.ca Education Society: Word Processing Teacher Tools**  
[www.2learn.ca/teachertools/Wordprocessing/wphow2.html](http://www.2learn.ca/teachertools/Wordprocessing/wphow2.html)  
Word processing tutorials for Microsoft Word, Corel WordPerfect, and Appleworks.
- **Essential Microsoft Office 2000: Tutorials for Teachers: Word**  
[www.pitt.edu/~poole/Officeindex2.html](http://www.pitt.edu/~poole/Officeindex2.html)  
Essential Microsoft Office 2000 tutorials from the University of Pittsburgh's Bernie Poole and others.

## 2. Spreadsheets Skills

Educators should be able to use some type of spreadsheet program to compile grades and chart data. See the following Web sites for helpful information and tutorials on these skills.

- **University of Alberta: Online Spreadsheet Tutorials**  
[www.quasar.ualberta.ca/edpy202/tutorial/spreadsheet/spreadsheet.htm](http://www.quasar.ualberta.ca/edpy202/tutorial/spreadsheet/spreadsheet.htm)  
This page is a collection of Internet links that provide instruction on using spreadsheet programs.
- **Teachnology: Spreadsheets Teaching Theme**  
<http://teachers.teach-nology.com/themes/comp/spreadsheets>  
Spreadsheet tutorials from Teachnology, the Web Portal for Educators
- **Excel in TutorGig Tutorials**  
[www.tutorgig.com/showurls.jsp?group=531&index=0](http://www.tutorgig.com/showurls.jsp?group=531&index=0)  
Spreadsheet tutorials from TutorGig.
- **Essential Microsoft Office 2000: Tutorials for Teachers: Excel**  
[www.pitt.edu/~poole/Officeindex2.html](http://www.pitt.edu/~poole/Officeindex2.html)  
Essential Microsoft Office 2000 tutorials from the University of Pittsburgh's Bernie Poole and others.
- **Black Hills State University: Technology for Teachers: Spreadsheets**  
[www.bhsu.edu/education/edfaculty/Itturner/Technology\\_for\\_Teachers.htm#Spreadsheets](http://www.bhsu.edu/education/edfaculty/Itturner/Technology_for_Teachers.htm#Spreadsheets)  
A listing of various Web sites for spreadsheet tutorials and related information.

### 3. Database Skills

Educators should be able to use some type of database program to create tables, store and retrieve data. See the following Web sites for helpful information and tutorials on these skills.

- **University of Alberta: Online Database Tutorials**  
[www.quasar.ualberta.ca/edit202/tutorial/database/database.htm](http://www.quasar.ualberta.ca/edit202/tutorial/database/database.htm)  
Database tutorials from the University of Alberta.
- **Technology and Telecommunications for Teachers: Database Tutorial**  
[www.k12.hi.us/~tethree/01-02/tutorials/db](http://www.k12.hi.us/~tethree/01-02/tutorials/db)  
This tutorial was created by the Advanced Technology Research Branch of the Hawaii Department of Education to provide supplemental productivity tool information to teachers enrolled in the Technology for Teachers (T3) Program.
- **Microsoft Access Database Tutorials**  
[www.rd-robotics.com/accesscommunity/tutes](http://www.rd-robotics.com/accesscommunity/tutes)  
Microsoft Access database tutorials from R&D Robotics.
- **Essential Microsoft Office 2000: Tutorials for Teachers: Access**  
[www.pitt.edu/~poole/Officeindex2.html](http://www.pitt.edu/~poole/Officeindex2.html)  
Essential Microsoft Office 2000 tutorials from the University of Pittsburgh's Bernie Poole and Associates.
- **Black Hills State University: Technology for Teachers: Databases**  
[www.bhsu.edu/education/edfaculty/Itturner/Technology\\_for\\_Teachers.htm#Databases](http://www.bhsu.edu/education/edfaculty/Itturner/Technology_for_Teachers.htm#Databases)  
A listing of Web sites for database tutorials, help and related information

### 4. Electronic Presentation Skills

Educators should be able to use electronic presentation software to create and give electronic presentations. See the following Web sites for helpful information and tutorials on these skills.

- **PowerPoint in the Classroom**  
[www.electricteacher.com/tutorial3.htm](http://www.electricteacher.com/tutorial3.htm)  
A list of commonly tasks used while working in PowerPoint, and a step-by-step guide on how to use PowerPoint.
- **University of Victoria: PowerPoint I**  
[www.educ.uvic.ca/compined/Level1/ppoint/ppointI.htm](http://www.educ.uvic.ca/compined/Level1/ppoint/ppointI.htm)  
PowerPoint tutorials and information from the University of Victoria in British Columbia.
- **Steven Bell's PowerPoint and Presentation Skills Resource Page**  
<http://staff.philau.edu/bells/ppt.html>  
A list of resources that provide information and technical assistance for developing PowerPoint presentations, as well as information on designing computer-based presentations and multimedia presentations on the Web.
- **University of California: Presentation/In-Class Software Tutorial & Guides**  
[www.uctlrc.org/toolbox/guides/presentation.html](http://www.uctlrc.org/toolbox/guides/presentation.html)  
Presentation software tutorials and many other related tutorial categories from the University of California Regents.
- **University of Alberta: Online PowerPoint Tutorials**  
[www.quasar.ualberta.ca/edpy202/tutorial/PowerPoint/PowerPoint.htm](http://www.quasar.ualberta.ca/edpy202/tutorial/PowerPoint/PowerPoint.htm)

Online PowerPoint Tutorials from the University of Alberta.

- **Essential Microsoft Office 2000: Tutorials for Teachers: PowerPoint**  
[www.pitt.edu/~poole/Officeindex2.html](http://www.pitt.edu/~poole/Officeindex2.html)

Essential Microsoft Office 2000 tutorials from the University of Pittsburgh's Bernie Poole a

## 5. World Wide Web Navigation Skills

Educators should be able to navigate the World Wide Web and search effectively for data on the following Web sites for helpful information and tutorials on these skills.

- **Black Hills State University: Search Engines**  
[www.bhsu.edu/education/edfaculty/Iturner/Search%20Engines.htm](http://www.bhsu.edu/education/edfaculty/Iturner/Search%20Engines.htm)  
An educational Web portal that provides links to search engines and searching techniques
- **Finding Information on the Internet: A Tutorial**  
[www.lib.berkeley.edu/TeachingLib/Guides/Internet/FindInfo.html](http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/FindInfo.html)  
This tutorial presents the substance of the Internet workshops offered by the Teaching Lib  
California at Berkeley.
- **Searching the Web in the Yahoo! Directory**  
[http://dir.yahoo.com/Computers\\_and\\_Internet/Internet/World\\_Wide\\_Web/Searching\\_the](http://dir.yahoo.com/Computers_and_Internet/Internet/World_Wide_Web/Searching_the)  
A listing of the top search engines and directories categorized by Yahoo!
- **Online Writing Lab: Searching the World Wide Web**  
[http://owl.english.purdue.edu/handouts/research/r\\_websearch2.html](http://owl.english.purdue.edu/handouts/research/r_websearch2.html)  
Purdue University's Online Writing Lab Searching the Internet tutorial
- **How to be a WebHound**  
[www.mcli.dist.maricopa.edu/webhound/](http://www.mcli.dist.maricopa.edu/webhound/)  
The WebHound site shows you how to use various Web search tools.
- **ICYouSee: T is for Thinking**  
[www.ithaca.edu/library/training/think.html](http://www.ithaca.edu/library/training/think.html)  
A guide to critical thinking about what you see on the Web.

## 6. Web site Design Skills

Educators should be able to design, create, and maintain a faculty/educator Web page/site. See for helpful information and tutorials on these skills.

- **The WWW Help Page**  
<http://werbach.com/web/wwwhelp.html>  
Web Page Design Help from Kevin Werback, a portal type help site.
- **Netscape's Resources for Creating Web sites**  
<http://wp.netscape.com/browsers/createsites/index.html>  
Resources for Creating Web sites page from Netscape
- **Teachers.Net Homepage Maker**  
<http://teachers.net/sampler>  
Teacher Web site creation - interactive from Teachers.net
- **Web Adventure!**

[www.webdiner.com/webadv](http://www.webdiner.com/webadv)

Web Adventure a beginners design and creation Web site

- **BUBL Link: Catalogue of Internet Resources**  
<http://bubl.ac.uk/link/w/webpagedesign.htm>  
Web Page Design portal page.
- **How Web Pages Work**  
[www.howstuffworks.com/web-page.htm](http://www.howstuffworks.com/web-page.htm)  
How Stuff Works page on how Web Pages Work
- **Creating a Web Page**  
[www.marshall-es.marshall.k12.tn.us/jobee/webpage.html](http://www.marshall-es.marshall.k12.tn.us/jobee/webpage.html)  
Web Page Design from Hazel Jobee aMarchal Elementary in Lewisburg TN.
- **Technology for Teachers**  
[www.bhsu.edu/education/edfaculty/Itturner/Technology\\_for\\_Teachers.htm](http://www.bhsu.edu/education/edfaculty/Itturner/Technology_for_Teachers.htm)  
A listing of Web sites for web design, creation help and related information

## 7. E-Mail Management Skills

Educators should be able to use e-mail to communicate and be able to send attachments and create the following Web sites for helpful information and tutorials.

- **Computer Skills Tutorials**  
[http://psychology230.tripod.com/canyons\\_online/id4.html](http://psychology230.tripod.com/canyons_online/id4.html)  
E-mail tutorials from Online Learning at the College of the Canyons
- **Web Site 101: Small Business E-Mail Tutorial**  
[www.Web site101.com/email\\_e-mail](http://www.Web site101.com/email_e-mail)  
E-mail tutorials and e-mail basics from Web site101.com
- **UNITAR's PATIT Training Program: E-Mail Basics**  
[www.un.int/unitar/patit/onlinetutorials/emailbasics.htm](http://www.un.int/unitar/patit/onlinetutorials/emailbasics.htm)  
E-mail basics from UNITAR
- **VisualTutorials.Com**  
<http://visualtutorials.com/email.htm>  
E-mail tutorials from VisualTutotiral.com
- **The Animated Internet: How E-Mail Works**  
[www.learnthenet.com/english/section/email.html](http://www.learnthenet.com/english/section/email.html)  
E-mail tutorials from Learn the Net.com

## 8. Digital Cameras Knowledge

Educators should know how to operate a digital camera and understand how digital imagery can be used. The following Web sites for helpful information and tutorials.

- **Digital Photography Review**  
[www.dpreview.com](http://www.dpreview.com)  
Digital Photography Review is an independent resource dedicated to the provision of news and information about Digital Photography and Digital Imaging published at the Internet address

- **How Digital Cameras Work**  
[www.howstuffworks.com/digital-camera.htm](http://www.howstuffworks.com/digital-camera.htm)  
How Digital Cameras Work by How Stuff Works.
- **The Casio Classroom: 1001 Uses for a Digital Camera**  
<http://pegasus.cc.ucf.edu/~ucfcasio/qvuses.htm>  
This site is designed as a reference tool putting educators in touch with creative educational uses for digital cameras in educational settings.
- **Digital Cameras in Education**  
<http://members.ozemail.com.au/~cumulus/digcam.htm>  
Web site by Keith Lightbody - ICT Consultant Digital cameras are one of the single most successful and Communications Technology purchases you can make in a school. Promote visual literacy and encourage students to use digital cameras!
- **Technology for Teachers: Digital Cameras**  
[www.bhsu.edu/education/edfaculty/Itturner/Technology\\_for\\_Teachers.htm](http://www.bhsu.edu/education/edfaculty/Itturner/Technology_for_Teachers.htm)  
A listing of Web sites about Digital Cameras and related information

## 9. Network knowledge applicable to your organization.

Educators should know the basics of computer networks and understand how their school network works. The following Web sites for helpful information and tutorials.

- **Knowledge Network Courses for Teachers**  
[www.knowledgenetwork.co.za/educators/educators.htm](http://www.knowledgenetwork.co.za/educators/educators.htm)  
Knowledge Network, established in 1994, specializes in integrated technology solutions for the professional development of teachers and learners in schools, IT Project Management for Schools and skills evaluations for companies.
- **An Educator's Guide to School Networks**  
<http://fcit.usf.edu/network/default.htm>  
An Educator's Guide to School Networks
- **Discovery Schools Kathy Schrock's Guide for Educators**  
<http://school.discovery.com/schrockguide/sci-tech/scicom.html>  
Kathy Schrock's Guide for Educators - Computing and Technology
- **Kid Source Online**  
[www.kidsource.com/kidsource/content2/how\\_can\\_computer\\_network.html](http://www.kidsource.com/kidsource/content2/how_can_computer_network.html)  
Kids SourceOnline - How Can Computer Networking Be Used in the Classroom?
- **What is a Computer Network**  
<http://archive.ncsa.uiuc.edu/edu/nie/overview/handbook/ch2.1.html>  
A Guide to Networking a K-12 School District
- **How to Guide: The Basics of Information Technology**  
[www.enterprise-ireland.com/ebusiness/guides/basics\\_bht/basics\\_p2a.htm](http://www.enterprise-ireland.com/ebusiness/guides/basics_bht/basics_p2a.htm)  
Beginners Guide to Networking

## 10. File Mgmt & Windows Explorer Skills

All educators should be able to manage their computer files and be able to complete the following tasks:

delete files and folders, move and copy files and folders using the My Computer window and Windows Explorer. See the following Web sites for helpful information and tutorials.

- **Grant MacEwen College: Online Student Tutorial**  
<http://learn.gmcc.ab.ca/lol/students/tutorial/mod2/2obj2fms.html>  
Online Student Tutorial - File Management Skills
- **Oregon State University Extension Service**  
<http://extension.oregonstate.edu/ectu/training/lessons/FileManagement.pdf>  
File Management from Oregon State University - Extension Computing Technology Unit.
- **Basic Computer Skills Tutorial**  
[www.umuc.edu/distance/odell/ctla/basic\\_skills](http://www.umuc.edu/distance/odell/ctla/basic_skills)  
UMUC Center for Teaching and Learning - Basic Computer Skills tutorial
- **Alverno College's Basic Computer Skills Tutorials**  
[www.depts.alverno.edu/cil/mod1](http://www.depts.alverno.edu/cil/mod1)  
Alverno College -Basic Computer Skills Tutorials.

## 11. Downloading Software from the Web Knowledge - including e-Books

All educators should be able to download software from the web and know of the major sites that can be used for this purpose. See the following Web sites for helpful information and tutorials.

- **Tucows.com**  
[www.tucows.com](http://www.tucows.com)
- **Download.com**  
[www.download.com](http://www.download.com)
- **Shareware.com**  
[www.shareware.com](http://www.shareware.com)
- **FreewareFile.com**  
[www.freewarefiles.com](http://www.freewarefiles.com)
- **Computer Tutorials from Carol**  
<http://carolirvin.com/tutorials.htm>  
Carol Irvin's Free Computers Tutorials

### e-Books

- **Microsoft Reader**  
[www.microsoft.com/reader](http://www.microsoft.com/reader)  
Microsoft Reader download site.
- **Download Adobe Acrobat Reader**  
[www.adobe.com/products/acrobat/readstep2.html](http://www.adobe.com/products/acrobat/readstep2.html)  
Acrobat Reader download site.
- **E-Book Links**  
[www.bhsu.edu/education/edfaculty/Iturner/Ebooks.htm](http://www.bhsu.edu/education/edfaculty/Iturner/Ebooks.htm)  
A listing of download sites for readers and e-books, help and related information.
- **Adobe eBooks Central**

[www.adobe.com/epaper/ebooks/main.html](http://www.adobe.com/epaper/ebooks/main.html)

Adobe's e-Book Web site

- **The eBook Directory**  
[www.ebookdirectory.com](http://www.ebookdirectory.com)  
The e-book Directory Web site.
- **eLibrary- Books and Site Links**  
[www.web-books.com/cool/ebooks/Library.htm](http://www.web-books.com/cool/ebooks/Library.htm)  
Free eBooks and Best Sites.
- **Free eBooks.Net**  
[www.free-ebooks.net](http://www.free-ebooks.net)  
Free e-books on the Internet Web site.
- **eBook.com (Australia)**  
[www.e-book.com.au/freebooks.htm](http://www.e-book.com.au/freebooks.htm)  
Free e-books Web site from ebooks.com

## 12. Installing Computer Software onto a Computer System

Educators should be able to install computer software onto a computer system. See the following information and tutorials.

- **Basics of Computing: Installing Software**  
<http://members.aol.com/shobansen3/installing.html>  
Installing Software Tutorial
- **Basic Computer Skills for Teachers**  
[www.aps.edu/aps/sw\\_depart/basicskills/Installing.html](http://www.aps.edu/aps/sw_depart/basicskills/Installing.html)  
Basic Skills for Teachers - How to Install Software
- **Regents of the University of Minnesota Master Internet Volunteer Program**  
[www.extension.umn.edu/miv/curriculum/awdinst.html](http://www.extension.umn.edu/miv/curriculum/awdinst.html)  
Downloading and Installing Software Instructions.
- **Welcome to Computer Training Tutorials**  
[www.ckls.org/~crippel/computerlab/tutorials](http://www.ckls.org/~crippel/computerlab/tutorials)  
Software Installation Problems Tutorial

## 13. WebCT or Blackboard Teaching Skills

Educators should be aware of these two online teaching tools and know about them and/or know how to teach or take classes. See the following Web sites for helpful information and tutorials.

- **WebCT Web site**  
[www.webct.com](http://www.webct.com)
- **Blackboard Web site**  
[www.blackboard.com](http://www.blackboard.com)
- **ICON- Iowa Courses Online**  
<http://icon.uiowa.edu/index.shtml>  
WebCT and Blackboard courses



- **Comparison of Online Course Delivery Software Products**  
[www.marshall.edu/it/cit/webct/compare/comparison.html](http://www.marshall.edu/it/cit/webct/compare/comparison.html)  
Complete side by side comparison of various online course delivery software products.

## 14. Video Conferencing skills

Educators should be able to use a video conferencing classroom and understand the basics of teaching with Video Conferencing. See the following Web sites for helpful information and tutorials.

- **JISC Technology Applications Programme**  
[www.cse.dmu.ac.uk/~jtb/jtap-037.htm](http://www.cse.dmu.ac.uk/~jtb/jtap-037.htm)  
Practical Guidelines for Teaching with Video Conferencing from JTAP
- **SBC Knowledge Network Explorer**  
[www.kn.pacbell.com/wired/vidconf/intro.html](http://www.kn.pacbell.com/wired/vidconf/intro.html)  
An Introduction to Video Conferencing from SCB
- **Teaching with Technology**  
[www.powertolearn.com/articles/teaching\\_with\\_technology/video\\_conferencing\\_for\\_teaching](http://www.powertolearn.com/articles/teaching_with_technology/video_conferencing_for_teaching)  
Video Conferencing for Teaching & Learning article from Power to Learn
- **LDTI Case Studies**  
[www.icbl.hw.ac.uk/ldti/vcstudies](http://www.icbl.hw.ac.uk/ldti/vcstudies)  
Video Conferencing for Teaching & Learning online articles and information
- **Conferencing Technology Guidelines**  
[www.gla.ac.uk/lncs/main/video.htm](http://www.gla.ac.uk/lncs/main/video.htm)  
Video Conferencing Guidelines from the University of Glasgow
- **Teleconferencing and Teaching**  
<http://coehd.utsa.edu/users/pmcgee/teleconference.htm>  
Teleconferencing and Teaching from the University of Texas

## 15. Computer Related Storage Devices Knowledge.

Educators should understand and know how to use the following data storage devices: disks, CDs, DVDs. See the following Web sites for helpful information and tutorials.

### Diskettes

- **Disabled Women's Network Ontario Computer Basics**  
<http://dawn.thot.net/cd/135.html#2>  
Computer Basics - diskettes
- **Hardware Basics: Inside the Box**  
[www.cse.psu.edu/~domico/CMPSC101/Lecture-1.htm](http://www.cse.psu.edu/~domico/CMPSC101/Lecture-1.htm)  
Computer Hardware Basics - diskettes
- **Formatting Diskettes**  
[www.vertical-market.com/gui/W2\\_1099GUI/Formatting%20Diskettes.htm](http://www.vertical-market.com/gui/W2_1099GUI/Formatting%20Diskettes.htm)  
Step by step guide to formatting diskettes
- **How Floppy Disks Work**

<http://computer.howstuffworks.com/floppy-disk-drive.htm>

How Stuff Works explains How Floppy Disks Work

## CDs

- **Cognigen PC Burning Basics**  
[www.cognigen-pc.com/main/coop/default.aspx?Cid=1002](http://www.cognigen-pc.com/main/coop/default.aspx?Cid=1002)  
CD Burning Basics
- **Creating your own CDs**  
[www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/creating](http://www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/creating)  
The Microsoft Networks guide to burning CDs
- **Information on CD-ROM Drives**  
[www.computerhope.com/help/cdrom.htm](http://www.computerhope.com/help/cdrom.htm)  
Computer Hardware - CD Information
- **PC Guide's About CD-ROM Drives**  
[www.pcguides.com/ref/cd/index-c.html](http://www.pcguides.com/ref/cd/index-c.html)  
CD-ROMs - The PC Guide
- **Zip CDs User Manual**  
[www.iomega.com/support/manuals/zipcda8x4x32/use\\_discs.html](http://www.iomega.com/support/manuals/zipcda8x4x32/use_discs.html)  
Selecting and Using CDs.
- **Making Data CDs**  
[www.ivytech.edu/madison/hr/Instructions%20for%20Creating%20a%20CD.doc](http://www.ivytech.edu/madison/hr/Instructions%20for%20Creating%20a%20CD.doc) Making  
Data CDs Using the Easy CD Creator
- **Wikipedia, the free encyclopedia:CDs**  
[http://en.wikipedia.org/wiki/Compact\\_disc](http://en.wikipedia.org/wiki/Compact_disc)  
CDs from Wikipedia

## USB Drives

(also known as pen drives, flash drives, key chain drives, portable hard drives)

- **SearchStorage.Com: Jump Drive**  
[http://searchstorage.techtarget.com/sDefinition/0,,sid5\\_gci869057,00.html](http://searchstorage.techtarget.com/sDefinition/0,,sid5_gci869057,00.html)  
Keychain Drive Information
- **#1 Pen & Flash Drives**  
[www.pen-flash-drives.com](http://www.pen-flash-drives.com)  
Flash Drive Information
- **How USB Ports Work**  
<http://computer.howstuffworks.com/usb.htm>  
How USB Drives Work
- **USB Floppy Disk Driver FAQs**  
[www.yedata.com/support/floppydrives\\_faq.shtml](http://www.yedata.com/support/floppydrives_faq.shtml)  
FAQ about USB Drives
- **USB Hard Drive By Crazy PC**  
[www.cluboverclocker.com/reviews/drives/flash\\_drives/q\\_usb\\_hd](http://www.cluboverclocker.com/reviews/drives/flash_drives/q_usb_hd)  
USB Drive Information

- The MemoryGuide.com  
[www.the-memory-guide.com/usb-drive.html](http://www.the-memory-guide.com/usb-drive.html)  
USB Drives - A New Wave in PortableStorage

## DVDs

- How DVDs Work  
<http://electronics.howstuffworks.com/dvd.htm>  
How Does a DVD Work? from How Stuff Works
- How It Works: DVD  
[www.pcworld.com/howto/article/0,aid,14697,00.asp](http://www.pcworld.com/howto/article/0,aid,14697,00.asp)  
How Do DVDs Work? from PC World
- Sony DVD FAQs  
[www.sonyburners.com/faqs](http://www.sonyburners.com/faqs)  
DVDs FAQs
- Use DVDs for Archiving and Storage  
[www.datamind.co.uk/merchant/dvd\\_for%20storage\\_backup.htm](http://www.datamind.co.uk/merchant/dvd_for%20storage_backup.htm)  
Use DVDs for Storage and Archiving from Datamind.co.uk
- KarbosGuide.com: DVDs  
[www.karbosguide.com/hardware/module4c3a.htm](http://www.karbosguide.com/hardware/module4c3a.htm)  
DVD Media

## Zip Disks

- Iomega's Home Page  
[www.iomega.com/na/landing.jsp](http://www.iomega.com/na/landing.jsp)  
Zip Drive Information from iomega
- Zip Drive FAQs  
[http://phyweb.lbl.gov/compute/local\\_zip.html](http://phyweb.lbl.gov/compute/local_zip.html) Zip Drive FAQ
- Zip: Q&A  
[www.amigau.com/zipdrives/aFAQ.html](http://www.amigau.com/zipdrives/aFAQ.html) Zip Home - FAQ

## 16. Scanner Knowledge

Educators should know how to use a scanner and what OCR capacity is. See the following Web site information and tutorials.

- A Few Scanning Tips  
[www.scantips.com](http://www.scantips.com)  
Scanning Tips by Wayne Fulton
- AARP: How to Use a Scanner  
[www.aarp.org/computers-howto/Articles/a2002-07-16-scan.html](http://www.aarp.org/computers-howto/Articles/a2002-07-16-scan.html)  
How to Use a Scanner
- How do I Use a Scanner  
[www.bbc.co.uk/webwise/askbruce/articles/scancam/usescan\\_1.shtml](http://www.bbc.co.uk/webwise/askbruce/articles/scancam/usescan_1.shtml)

- How to Use a Scanner by Ask Bruce
- **Scanners**  
[www.pcworldmalta.com/archive/iss44/scanners.htm](http://www.pcworldmalta.com/archive/iss44/scanners.htm)  
Scanner Information by PC World
- **Scanning Tips for Beginners (and old pros, too)**  
<http://aroundcny.com/technofile/texts/tec010503.html>  
Scanning Tips for Beginners
- **Best Sites for OCR Scanners**  
[www.discount-secrets.com/computer/scanners/ocr-scanner.htm](http://www.discount-secrets.com/computer/scanners/ocr-scanner.htm)  
OCR Scanner Information.
- **Secrets of...**  
[www.secretsof.com/content/576](http://www.secretsof.com/content/576)  
Secrets of Taming Computers - Scanners

## 17. PDAs Knowledge

Educators should now know what a PDA is and who to use one. See the following Web sites for helpful tutorials.

- **Palm Web site**  
[www.palmone.com/us/?siteRef=p1-xfer](http://www.palmone.com/us/?siteRef=p1-xfer)
- **The Source for a Palm Powered World**  
[www.palmgear.com](http://www.palmgear.com)  
PalmGear's Web site
- **Palm News and Information**  
[www.handheldnews.com/category.asp?ObjectID=5421](http://www.handheldnews.com/category.asp?ObjectID=5421)  
Palm News for Beginners
- **Real People Helping People: Palm Computing Devices**  
[www.suite101.com/linkcategory.cfm/4239/5398](http://www.suite101.com/linkcategory.cfm/4239/5398)  
General Information on Palm Pilots
- **Basic PDA Specs Explained**  
[www.geek.com/news/geeknews/2003Jan/bpd20030103017997.htm](http://www.geek.com/news/geeknews/2003Jan/bpd20030103017997.htm)  
Basic PDA Information
- **For PDA Users**  
<http://scilib.ucsd.edu/bml/pda/intro.htm>  
Introduction for PDAs from UCSD

## 18. Deep Web Knowledge

Educators should know what the deep web is and how to use it as a resource tool. See the following helpful information and tutorials.

- **The Deep Web Directory**  
[www.completeplanet.com](http://www.completeplanet.com)  
CompletePlanet's Deep Web search engine and site

- **Internet Tutorial: The Deep Web**  
<http://library.albany.edu/internet/deepweb.html>  
Deep Web Information from University Library at Albany NY
- **Your Source for Deep Web Information**  
[www.deepweb.com](http://www.deepweb.com)  
The Deep Web Web site.
- **Searching the Deep Web**  
[www.deepwebtech.com](http://www.deepwebtech.com)  
Deep Web Technologies Web site.
- **Invisible Web Gets Deeper**  
[www.searchenginewatch.com/sereport/article.php/2162871](http://www.searchenginewatch.com/sereport/article.php/2162871)  
Deep Web information from SearchEngineWatch.
- **Doing it Deeper: The Deep Web**  
[www.bhsu.edu/education/edfaculty/Itturner/The%20Deep%20Web%20article1.doc](http://www.bhsu.edu/education/edfaculty/Itturner/The%20Deep%20Web%20article1.doc)  
Article by L Turner from Black Hills State University

## 19. Educational Copyright Knowledge

Educators should understand the copyright issues related to education including multimedia and issues. See the following Web sites for helpful information and tutorials.

- **University of Washington Libraries: Copyright Information for Educators**  
[www.lib.washington.edu/help/guides/copyright.html](http://www.lib.washington.edu/help/guides/copyright.html)  
Copyright Information for Educators.
- **Internet School Library Media Center**  
<http://falcon.jmu.edu/~ramseyil/copy.htm>  
Copyright for Educators portal
- **Adventures of CyberBee**  
[www.cyberbee.com/copyrt.html](http://www.cyberbee.com/copyrt.html)  
Copyright with CyberBee
- **West Valley College Library: Copyright**  
[www.westvalley.edu/wvc/library/copyright-resources.html](http://www.westvalley.edu/wvc/library/copyright-resources.html)  
Copyright Information for Educators
- **University of Maryland University College: Information and Library Services**  
[www.umuc.edu/library/copy.html](http://www.umuc.edu/library/copy.html)  
Copyright and Fair Use in the Classroom, on the Internet, and the World Wide Web
- **PBS Teacher's Source**  
[www.pbs.org/teachersource/copyright/copyright\\_ed\\_multi.shtm](http://www.pbs.org/teachersource/copyright/copyright_ed_multi.shtm)  
Educational Multimedia
- **Black Hills State University: Copyright Guidelines**  
[www.bhsu.edu/education/edfaculty/Itturner/Copyright%20Guidelines.htm](http://www.bhsu.edu/education/edfaculty/Itturner/Copyright%20Guidelines.htm)  
Copyright Guidelines portal

## 20. Computer Security Knowledge

Educators should know about basic computer security issues related to education. See the following helpful information and tutorials.

- **Computer World: The Need for Better Security**  
[www.computerworld.com/securitytopics/security/story/0,10801,71714,00.html](http://www.computerworld.com/securitytopics/security/story/0,10801,71714,00.html)  
Computer security concerns article from ComputerWorld
  - **Security 101: Security**  
[www.secure101.net/security/security.htm](http://www.secure101.net/security/security.htm)  
Security 101 A Basic Computer Security Resource for Educators
  - **Educational Cyber Playground: Security**  
[www.edu-cyberpg.com/Technology/staffdr.html](http://www.edu-cyberpg.com/Technology/staffdr.html)  
Computer Security and Related Issues Portal
  - **Cisco Systems: Beginners Guide to Network Security**  
[www.cisco.com/warp/public/cc/so/neso/sqso/beggu\\_pl.pdf](http://www.cisco.com/warp/public/cc/so/neso/sqso/beggu_pl.pdf)  
A Beginners Guide to Network Security
  - **A Beginners Guide to Wireless Security**  
[www.governmentsecurity.org/articles/ABeginnersGuideToWirelessSecurity.php](http://www.governmentsecurity.org/articles/ABeginnersGuideToWirelessSecurity.php)  
A beginner's guide from GovernmentSecurity.org
  - **Computer and Network Security Introduction**  
[www.comptechdoc.org/independent/security](http://www.comptechdoc.org/independent/security)  
An article by the Computer Technology Documentation Project
  - **Science & Technology Resources on the Internet**  
[www.istl.org/02-fall/internet.html](http://www.istl.org/02-fall/internet.html)  
Computer security article by Jane Kinkus, Purdue University
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Here are 20 basic technology skills that all educators should now have: 1. Word Processing Skills 2. Spreadsheets Skills 3. Database Skills 4. Electronic Presentation Skills 5. Web Navigation Skills 6. Web Site Design Skills 7. E-Mail Management Skills 8. Digital Cameras 9. Computer Network Knowledge Applicable to your School System 10. Researchers have suggested that technology skills should be integrated throughout the teacher education curriculum in order to provide pre-service teachers with the skills and experiences needed to apply technology to their specific content areas (Jo et al., 2012). International organizations such as UNSECO (United Nations Educational Scientific and Cultural Organization) and ISTE (International Society for Technology in Education) have been working to develop tools to measure teachers' technology skill towards the use on education field. Laura developed 20 technology skills that.

Turner, L. (2005). 20 Technology Skills Every Educator Should Have. T.H.E. Available at: <http://thejournal.com/articles/17325>. Every teacher should be able to troubleshoot technology-related problems that commonly crop up in the classroom. For example, you should know that when a computer is behaving oddly in any way, the simplest solution often is to turn off the computer and then turn it back on. Sometimes plugs work loose from their sockets or disks get stuck in drives. Technology-using teachers should know how to do those and myriad other basic computer troubleshooting tasks.

**TECHNICAL ASSISTANCE.** Every teacher should have well-honed Web searching skills. Searching the Web has become an essential skill for all computer users. Teachers today spend a lot of time online looking for multi-media resources as well as for general informational material to use with students. Why is technology so important today and in the future, and why should children learn technology skills? Explore the importance of technology.

At Immerse, we are committed to the highest quality of education – our programmes are unique in their focus on academic rigour, stimulating our participants intellectual curiosity in their chosen subjects. We strive to ensure that every student leaves our programmes with new-found expertise and enthusiasm to plan the next stages of their education with confidence.

**MORE INFORMATION.** Manifesto. The Immerse Education Manifesto aims to represent the values we adopt, not only in an educational context, but as an organisation in general.