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 put up with fast-moving computer-based technology. Not since the introduction of the blackboard have we been faced with equipment that 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 also involved in administrative tasks, including video, e-mail, desktop conferencing, online programs such as WebCT and Blackboard, and even computer 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 possess. Since computer and associated technologies continue to change and evolve, educators must continue to keep up with these changes 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, etc.)
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 tutorial sites.

- **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 Associates.

2. Spreadsheets Skills

Educators should be able to use some type of spreadsheet program to compile grades and chart statistics. 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**
  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 Associates.

- **Black Hills State University: Technology for Teachers: Spreadsheets**
  [www.bhsu.edu/education/edfaculty/ltturner/Technology_for_Teachers.htm#Spreadsheets](http://www.bhsu.edu/education/edfaculty/ltturner/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 Tutes**
  [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 at the Office of Information Technology.

- **Black Hills State University: Technology for Teachers: Databases**
  [www.bhsu.edu/education/edfaculty/lturner/Technology_for_Teachers.htm#Databases](http://www.bhsu.edu/education/edfaculty/lturner/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 do them.

- **University of Victoria: PowerPoint I**
  [www.educ.uvic.ca/compined/Level1/ppoint/ppoint1.htm](http://www.educ.uvic.ca/compined/Level1/ppoint/ppoint1.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](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**
  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.

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/lturner/Search%20Engines.htm](http://www.bhsu.edu/education/edfaculty/lturner/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 Library of the University of California at Berkeley.

- **Searching the Web in the Yahoo! Directory**
  [http://dir.yahoo.com/Computers_and_Internet/Internet/World_Wide_Web/Searching_the_web%20in_the_Yahoo_Directory](http://dir.yahoo.com/Computers_and_Internet/Internet/World_Wide_Web/Searching_the_web%20in_the_Yahoo_Directory)
  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 following sites for helpful information and tutorials on these skills.

- **The WWW Help Page**
  Web Page Design Help from Kevin Werback, a portal type help site.

- **Netscape's Resources for Creating Web sites**
  Resources for Creating Web sites page from Netscape.

- **Teachers.Net Homepage Maker**
  [http://teachers.net/sampler](http://teachers.net/sampler)
  Teacher Web site creation - interactive from Teachers.net.

- **Web Adventure!**
7. E-Mail Management Skills

Educators should be able to use e-mail to communicate and be able to send attachments and create a professional image. 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](http://visualtutorials.com/email.htm)
  E-mail tutorials from VisualTutorials.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 in education. 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 [www.dpreview.com](http://www.dpreview.com)
9. Network knowledge applicable to your organization.

Educators should know the basics of computer networks and understand how their school networks work. 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 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](http://fcit.usf.edu/network/default.htm)
  An Educator's Guide to School Networks

- **Discovery Schools Kathy Schrock's Guide for Educators**
  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](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**
  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:
delete files and folders, move and copy files and folders using the My Computer window and Windows File Manager. 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](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](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 have a 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](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**
  Acrobat Reader download site.

- **E-Book Links**
  [www.bhsu.edu/education/edfaculty/lturner/Ebooks.htm](http://www.bhsu.edu/education/edfaculty/lturner/Ebooks.htm)
  A listing of download sites for readers and e-books, help and related information.

- **Adobe eBooks Central**
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](http://members.aol.com/shobansen3/installing.html)  
  Installing Software Tutorial
- Basic Computer Skills for Teachers  
  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](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
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
  Practical Guidelines for Teaching with Video Conferencing from JTAP
- SBC Knowledge Network Explorer
  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_for_teaching_and_learning.html
  Video Conferencing for Teaching & Learning article from Power to Learn
- LDTI Case Studies
  www.icbl.hw.ac.uk/ltdi/vcstudies
  Video Conferencing for Teaching & Learning online articles and information
- Conferencing Technology Guidelines
  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
  Computer Hardware Basics - diskettes
- Formatting Diskettes
  www.vertical-market.com/gui/W2_1099GUI/Formatting%20Diskettes.htm
  Step by step guide to formatting diskettes
- How Floppy Disks Work
How Stuff Works explains How Floppy Disks Work

**CDs**

- **Cognigen PC Burning Basics**
- **Creating your own CDs**
  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**
  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%20Data%20CDs.doc](http://www.ivytech.edu/madison/hr/Instructions%20for%20Creating%20Data%20CDs.doc)
  Making Data CDs Using the Easy CD Creator
- **Wikipedia, the free encyclopedia:CDs**
  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](http://computer.howstuffworks.com/usb.htm)
  How USB Drives Work
- **USB Floppy Disk Driver FAQs**
  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
  USB Drives - A New Wave in Portable Storage

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
  How Do DVDs Work? from PC World
• Sony DVD FAQs
  www.sonyburners.com/faqs
  DVDs FAQs
• Use DVDs for Archiving and Storage
  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
  DVD Media

Zip Disks

• Iomega’s Home Page
  www.iomega.com/na/landing.jsp
  Zip Drive Information from iomega
• Zip Drive FAQs
  http://phyweb.lbl.gov/compute/local_zip.html Zip Drive FAQ
• Zip: Q&A
  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 sites for information and tutorials.

• A Few Scanning Tips
  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
  How to Use a Scanner
• How do I Use a Scanner
  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](http://aroundcny.com/technofile/texts/tec010503.html)  
  Scanning Tips for Beginners

- **Best Sites for OCR Scanners**  
  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 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**  
  Palm News for Beginners

- **Real People Helping People: Palm Computing Devices**  
  General Information on Palm Pilots

- **Basic PDA Specs Explained**  
  Basic PDA Information

- **For PDA Users**  
  [http://scilib.ucsd.edu/bml/pda/intro.htm](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 Web sites for helpful information and tutorials.

- **The Deep Web Directory**  
  [www.completeplanet.com](http://www.completeplanet.com)
  CompletePlanet's Deep Web search engine and site
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
  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
  Copyright with CyberBee
- **West Valley College Library: Copyright**
  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
  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.shtml
  Educational Multimedia
- **Black Hills State University: Copyright Guidelines**
  www.bhsu.edu/education/edfaculty/ltturner/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**
  Computer Security and Related Issues Portal

- **Cisco Systems: Beginners Guide to Network Security**
  A Beginners Guide to Network Security

- **A Beginners Guide to Wireless Security**
  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
Free resource of educational web tools, 21st century skills, tips and tutorials on how teachers and students integrate technology into education. Updated on March 2, 2015: The original list that was created in 2011 comprised 33 skills, after reviewing it we decided to do some merging and finally ended up with the 20 skills below. The 21st century teacher should be able to:

1. Create and edit digital audio
   Here are some tools for teachers to develop this skill: Free Audio Tools for Teachers.

2. Use social bookmarking to share resources with and between learners
   Here are some tools for teachers to develop this skill: A List of Best Bookmarking Websites for Teachers.