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# geeklopedia

from blog to wiki –

a primer of digital terminology



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### *My blogs and websites:*

• <http://bloggertation.blogspot.com/>

• <http://athenpro.blogspot.com/>

• <http://people.bu.edu/djbrky/>

• Google me @ [thefacebook.com](https://www.facebook.com/thefacebook.com)

# Reinvent the wheel?



*Terminology:*

*What does all the jargon mean?*

*What is this stuff called?*

4<sup>th</sup> annual AHG

<http://www.colorado.edu/ATconference/Terminology.htm>



Photopaper博士将帮助您了解  
有关数码照片和Bubble 喷墨打  
印机的技术术语。



# ATHEN / AHEAD

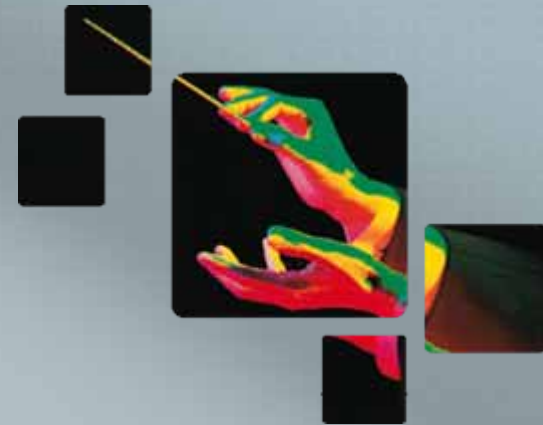
- Access Technologist Higher Education Network

- [www.athenpro.org](http://www.athenpro.org)



- Association on Higher Education and Disability

- [www.ahead.org](http://www.ahead.org)



# BitTorrent



- The protocol *and* the name of a peer-to-peer (P2P) file distribution tool.
  - Files are broken into smaller fragments, typically a quarter of a megabyte each. As the fragments are distributed to the peers in a random order, they can be reassembled on a requesting machine.
  - Each peer takes advantage of the best connections to the missing pieces while providing an upload connection to the pieces it already has.
    - In conventional downloading, high demand leads to bottlenecks as demand surges for bandwidth from the host server. With BitTorrent, high demand can actually *increase* throughput as more bandwidth and additional “seeds” of the completed file become available to the group.



# Bl ogs & Bl oggi ng

- Host sites [free & not-free]
  - <http://www.blogger.com/start>
  - <http://www.blogladder.com/>
  - <http://www.blogtastic.com/>
  - <http://www.iblogs.com/>
  - <http://www.livejournal.com/>
  - <http://www.typepad.com/splash/>
  - <http://www.lunarpages.com/index.php>
- *The best bloggers are educators  
- they want to share knowledge!*
- Splog - Sspam blogs are Web Log (or "blog") sites which the author uses only for promoting affiliated websites - junk mail!
  - The purpose is to increase the PageRank of the affiliated sites, get ad impressions from visitors, and/or use the blog as a link outlet to get new sites indexed.



# Bluetooth



- A short range wireless connectivity protocol that allows different devices from different manufacturers (and, in the case of cell phones, different providers) to "talk" to each other on a shared wireless platform.
- Essentially an ultra low power radio signal, that allows wireless access to certain devices within about 30 feet.
- Standard operating "system" - Various devices from diverse manufacturers can communicate
- Provides flexibility and convenience for those who frequently rely on handheld electronic devices such as phones, cameras and PDAs.
- AirPort: Apple Version of mini-wireless networks



# Case Mod



- Case modding or Case modification is the modification of a computer chassis [often just referred to as *the case*].
- Modifying a computer in any non-standard way is considered a case mod.
- Hardware enthusiasts in particular use case mods to illustrate a computer's power, and for aesthetic purposes.





# Creative Commons



Electronic Frontier Foundation  
<http://www.eff.org/bloggers/lg/>

# DAISY (DTB)



- Digital Accessible Information System
  - format based on the W3C defined SGML applications XHTML 1.0 and SMIL 1.0.
  - Using this framework, a talking book format is presented that enables navigation within a sequential and hierarchical structure consisting of (marked-up) text synchronized with audio.
- DAISY Consortium
- Daisy Talking Book

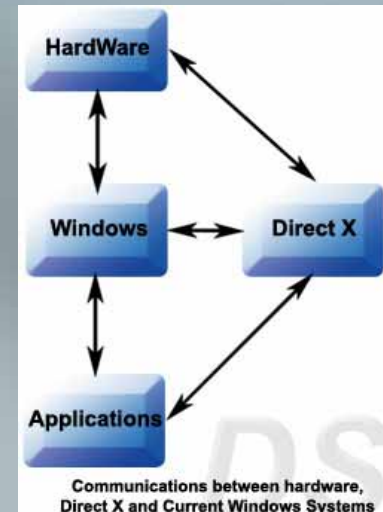


# DirectX



## ■ What is DirectX?

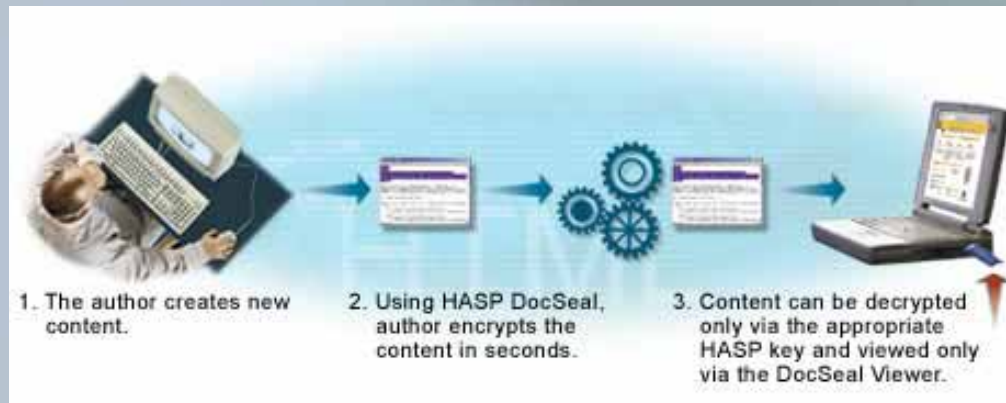
- A set of multimedia Application Programming Interfaces (API's) written by Microsoft. It is a collection of Dynamic Link Libraries (DLLs) that contain functions useful to a wide range of multimedia programmers, but are all almost entirely platform independent.
- Allows programmers access to fast graphics, sound, and input functions while not needing their apps to test for the capabilities of the computer on which their program is running.
- DirectX will evaluate these capabilities and if they are not present, DirectX may attempt to emulate the functions in software instead of hardware.



# Dongle (HASP key)



- A small hardware device that connects to a computer and acts as an authentication key for a particular piece of software.
- When this software protection dongle is present, the software will run properly; when it is not, the program will run in a restricted mode or refuse to start.
- Dongles are used by some proprietary vendors as a form of copy protection (DRM) as it is much harder to copy the dongle than to copy the software it authenticates.



# Digital Rights Management

- Umbrella term referring to any of several technical methods used to control or restrict the use of digital media content on electronic devices with such technologies installed.
- The media most often restricted by DRM techniques include music, visual artwork, computer and video games, and movies.
- Some digital media content publishers claim DRM technologies are necessary to prevent revenue loss due to illegal duplication of their copyrighted works. However, others, including civil libertarians, argue that transferring control of the use of media from consumers to a consolidated media industry will lead to loss of existing user rights and stifle innovation in software and cultural productions.
- Some licensees [such as [Sony/BMG](#)] are starting to use [Rootkits](#) for DRM.

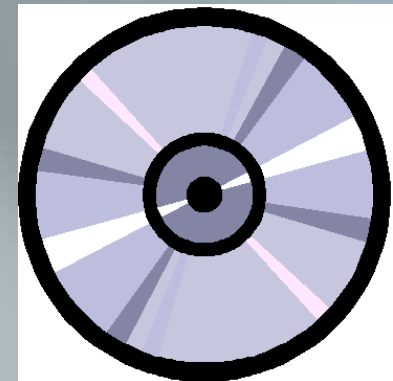


# DVD



## ■ Digital Video [Versatile] Disc

- Not just for movies...
- DVD is an optical disc storage media format that can be used for data storage (traditionally movies with high video and sound quality).
- DVDs resemble compact discs: their physical dimensions are the same—12cm or the mini 8cm—but they are encoded in a different format and at a much higher density.
  - CD holds 700MB
  - Single Layer DVD holds 4.7GB
  - Double Layer DVD holds 9.4GB



# EULA



## ■ End User License Agreement

- A software license is a type of proprietary or gratuitous license as well as a memorandum of contract between a producer and a user of computer software that specifies the perimeters of the permission granted by the owner to the user.
- A legal contract between the manufacturer and/or the author and the end user of an application. The EULA details how the software can and cannot be used and any restrictions that the manufacturer imposes.
- Most EULA's of proprietary software prohibit the user from sharing the software with anyone else.
- Ties into Digital Rights Management.



# TheFaceBook.com



- Online directory that connects people through social networks at schools.
  - Launched to the public on, February 4th, 2004.
  - Recently opened to non-college [high school] students by invitation only.
- [Friendster.com](http://Friendster.com)
  - Rival to FaceBook that has actually been around longer.
  - Launched in 2002
  - Open to everyone...
- [Myspace.com](http://Myspace.com) - bit more of a free-for-all
- [Craigslist.org](http://Craigslist.org) - *total* free-for all

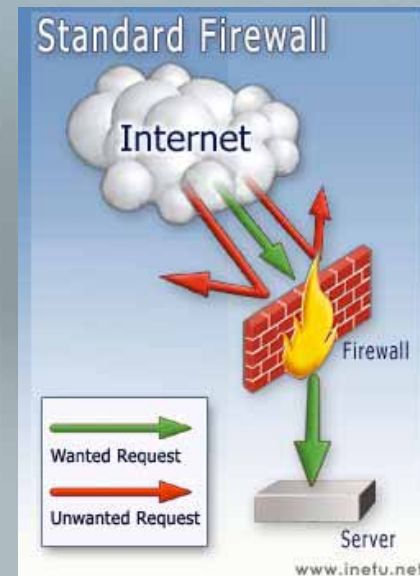




# Fi r e w a l l



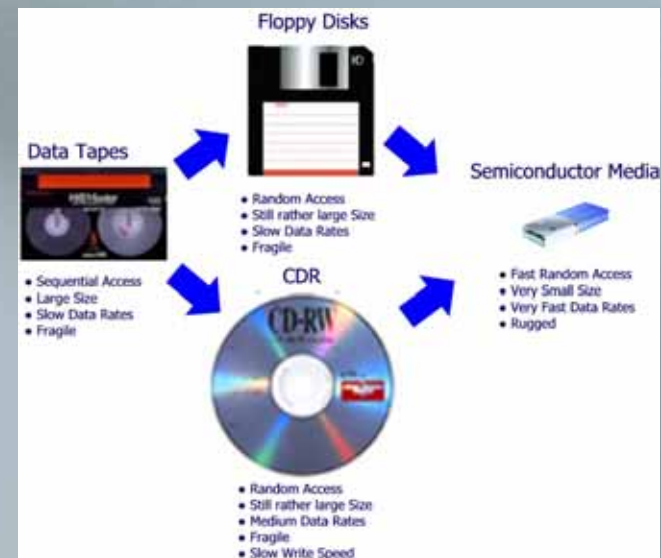
- A piece of hardware and/or software which functions in a networked environment to prevent some communications forbidden by the security policy.
- Analogous to the function of firewalls in building construction



# Flash (memory)



- A form of EEPROM that allows multiple memory locations to be erased or written in one programming operation.
  - EEPROM (E<sup>2</sup>PROM): Electrically-Erasable Programmable Read-Only Memory
- A form of rewritable memory chip that, unlike a Random Access Memory chip [RAM], holds its content without the need of a power supply.



# Gmail



- Free - easy - huge!
  - Web-based email service offers accounts that are accessed 100% through the web browser.
  - Users log in to work with their email.
- Rivals include:
  - [Yahoo Mail](#)
  - [MSN/HotMail](#)
  - [AOL \[new & improved\]](#)
  - [FastMail](#)
- Provides a route around campus firewalls for file transfers.



As an active Blogger user, we would like to invite you to be one of the first to try out Google's new email service, **Gmail**.

Would you like to give it a whirl? **YES / NO**

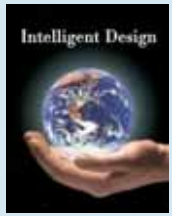
# Instant Messaging



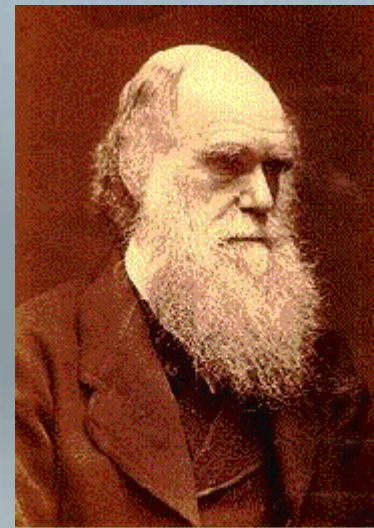
'nuf said ...  
shall we move on ...



# Intel Intelligent Design



- Has nothing to do with computers...
  - *Scopes* is not a hardware protocol...
  - *"Monkey" Trial* is not a web browser...



Ch. Darwin  
Painted 1874.



# LMS



- Learning Management System
  - Software package that enables the management and delivery of learning content and resources to students.
  - Most LMS systems are web-based to facilitate "anytime, anywhere" access to learning content and administration.
  - Also referred to as Course Management System
- Accessibility has been known to be an issue.
  - WebCT + BlackBoard [merging]
  - Moodle [open source]
  - Coursework [Stanford - proprietary]
  - Stellar [MIT - proprietary]



# Linux



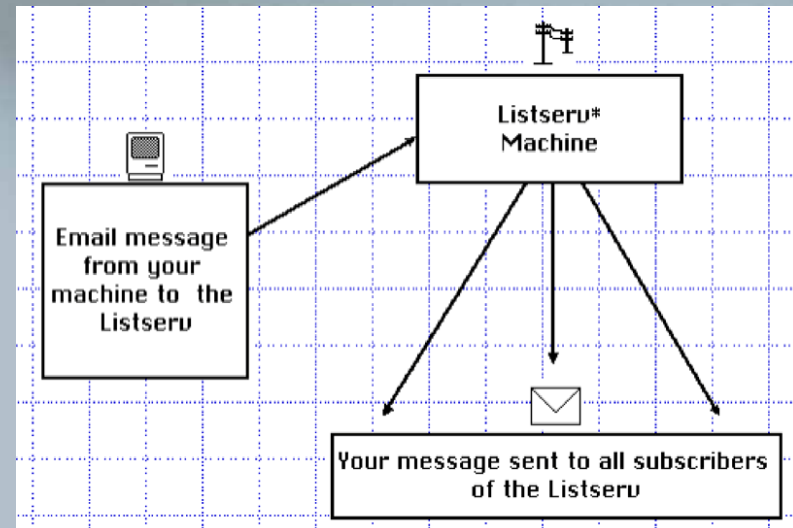
- Programs that are open source generally have three things in common. Most notably, *they're free*. But so are many other kinds of software out there - like shareware, freeware and adware.
- *Underlying source code is also free and open* for others to examine, modify and update. Instead of hoarding the secrets of the programming innards, like commercial software, open-source programs encourage others to tweak the programs, fix bugs, and add features - essentially, they are invited to become part of the development team.
- Open-source software can also be *distributed freely*. Copy it, give it to friends, even package and sell it if you like, as long as you continue to provide others the ability to do the same in accordance with the terms set by the [Open Source Initiative](#), a nonprofit group that maintains the open-source standard.



# Listserv



- You are probably on one - perhaps more than one...



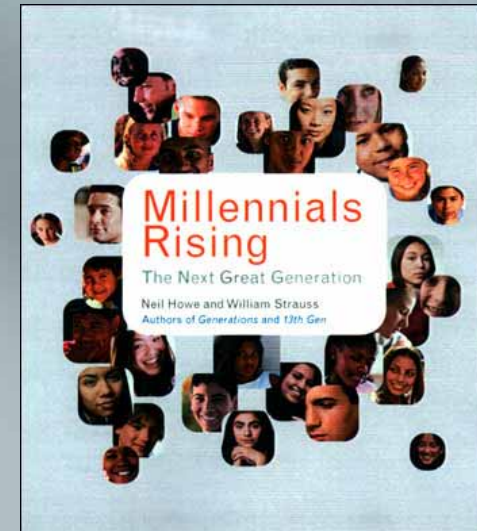


# Millennials



Credit: Harry Wilson

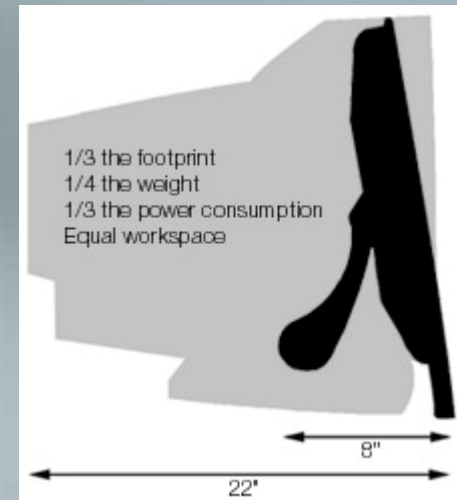
- Generation Y - along with Echo Boom, Byte Block, Internet Generation and Millennial Generation - is a name used in demographics to describe a particular generational cohort in Western societies, specifically the United States.
- The cohort comprises those born in the late 20th Century, especially the mid-to-late 1980s and early 1990s, although no consensus has emerged specifying exact dates, which has made matters difficult and confusing for many people.
- Proposed start dates range from 1977 to 1985, and proposed end dates range from 1994 to 2002, making only 10 years (1985 - 1994) out of the maximum 25-year threshold (1977-2002) *definitely* Generation Y.
- Digital natives -  
helicopter parents -  
boomerang kids!



# Monitors



- Cathode Ray Tube [CRT]  
*versus*
- Liquid Crystal Display [LCD]
  - Resolution & View Quality [CRT wins]
  - Power consumption [LCD wins]
  - Refresh Rates [CRT wins]
  - Size & Weight [LCD wins]
  - Glare [LCD wins]
  - Price [CRT wins ...]



# MP3

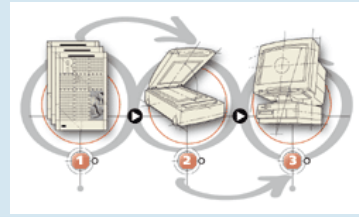


- One of many compression codecs for compressing digital music and sound.
  - "Compressor-Decompressor" or "Coder-Decoder" = a device or program capable of performing transformations on a data stream or signal.
  - Codecs can both put the stream or signal into an encoded form (often for transmission, storage or encryption) and retrieve, or decode that form for viewing or manipulation in a format more appropriate for these operations.
- A popular digital audio encoding and lossy compression format invented and standardized in 1991.
  - Lossy = method of compressing data and then decompressing it: retrieves data that may well be different from the original, but is "close enough" to be useful in some way
- MP3 was designed to greatly reduce the amount of data required to represent audio, yet still sound like a faithful reproduction of the original uncompressed audio.
  - In popular usage, "MP3" also refers to files of sound or music recordings stored in the MP3 format on computers.
- .wav files are larger and typically compressed into MP3.

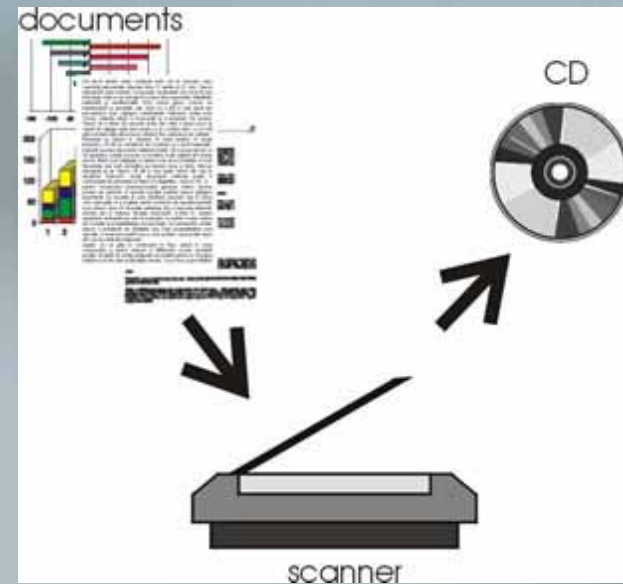
- National Instructional Materials Accessibility Standard
  - NIMAS guides the production and electronic distribution of digital versions of textbooks and other instructional materials so they can be more easily converted to accessible formats, including braille and text-to-speech.
  - Currently only applies to K-12, but those students will be entering higher education soon enough...



# OCR



- Optical Character Recognition involves computer software designed to translate images of typewritten text (usually captured by a scanner) into machine-editable text, or to translate pictures of characters into a standard encoding scheme.
- In eText Production scanning creates .tiff [tagged image file format] files that are then converted into other formats.
- OCR began as a field of research in artificial intelligence and machine vision
- Though academic research in the field continues, the focus on OCR has shifted to implementation of proven techniques.



# OCR



- Office for Civil Rights -
  - But that is a whole 'nother subject!



# Podcast



- Podcasting is a means of distributing audio and video programs via the Internet that lets users subscribe to a number of files, also known as "feeds", and then hear or view the material at the time that they choose.
- A feed is usually in the MP3 audio format.
- Do you need an iPod to get podcasts?
- Vodcasting - video podcast
  - [Princeton](#) (University Channel)
  - [Drexel](#) (School of Education)
- Coursecasting
  - [Duke](#) (Digital Initiative)
  - [Purdue](#) (Boilercast)



# Rootkit



- A rootkit is [has traditionally been] a type of malicious software that is activated each time your system boots up.
  - Rootkits are difficult to detect because they are activated before your system's Operating System has completely booted up.
  - A rootkit often allows the installation of hidden files, processes, hidden user accounts, and more in the OS.
  - Rootkits are able to intercept data from terminals, network connections, and the keyboard.
- Rootkits may become important in [Digital Rights Management](#).







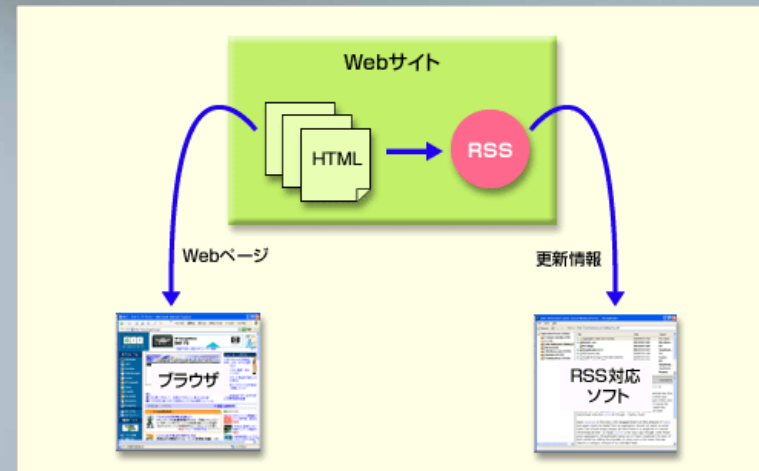


# RSS



- A family of XML file formats for Web syndication used by (amongst other things) news websites and weblogs.
  - The abbreviation means either:
    - Rich Site Summary
    - Really Simple Syndication
  - Modern-day ticker-tape machine ... [kinda like that]
  - RSS Programs

- [RSS Reader](#) 
- [Pluck](#) 
- [FeedDemon](#) 
- [Awasu](#) 



# SAPI & TTS



- Speech Application Program Interface
  - Extension gives workstations the ability to recognize human speech as input, and create human-like audio output from printed text.
- Text To Speech
  - Microsoft Mary & Mike
  - AT&T Natural Voices
  - Neospeech
  - Loquendo



# Section 508



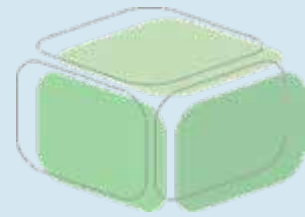
- Short name for US Public Law 105-220, a series of amendments to Section 508 of The Rehabilitation Act of 1973 (amended 1998).
- Also known as *The Workforce Investment Act of 1998*.
- Requires that electronic and information technology developed, procured, used, or maintained by all agencies and departments of the Federal Government be accessible both to Federal employees with disabilities and to members of the public with disabilities;
- And that these two groups have equal use of such technologies as federal employees and members of the public that do not have disabilities.
- Also applies to entities receiving Federal Funding (such as Colleges and Universities)



- Synchronized Multimedia Integration Language
  - SMIL document is similar in structure to an HTML document in that they are typically divided between a <head> section and a <body> section.
    - The <head> section contains layout and metadata information.
    - The <body> section contains the timing information, and is generally comprised of combinations of two main tags: parallel ("`<par>`") and sequential ("`<seq>`").
  - DAISY is a creation of SMIL in that both sides of the equation [XHTML + MP3] are synchronized.



# Universal Design



- The design of products and environments to be useable by all people to the greatest extent possible, without adaptation or specialized design.
  - Equitable Use
  - Flexibility in Use
  - Simple and Intuitive Use
  - Perceptible Information
  - Tolerance for Error
  - Low Physical Effort
  - Size and Space for Approach and Use
- Design should adapt to people - not the other way around.



# USB



- Universal Serial Bus

- A way of connecting mice, keyboards, and other low power external devices to a computer.



- Firewire

- A high speed connectivity protocol used to connect external devices to a computer.



- bus is a subsystem that transfers data or power between components inside a computer or between computers.
- Unlike a point-to-point connection, a bus can logically connect several peripherals over the same set of wires.



# Wi - Fi



- Another term for an AirPort [Mac] or 802.11b [Windows] network.
  - Like hi-fi (high fidelity) but then, not.
- Wi-Fi Finders [protected or not protected...?]



# Wi ki



- A group of Web pages that allows users to add content, as on an Internet forum, but also allows others (often completely unrestricted) to add-to and edit the content.
- The term *wiki* also refers to the collaborative software (wiki engine) used to create such a website.
- The wiki is a vast simplification of the process of creating HTML pages, and thus is a very effective way to exchange information through collaborative effort.
- **Wiki** is sometimes interpreted as the acronym for "what I know, is".





# XML



- Exensible Markup Language
  - Standard created by the W3C
  - Many similarities to HTML
- XML adds the ability to define custom tags, such and define the meaning of those tags within the XML document itself.
- A very flexible way to facilitate the sharing [exchange] of data across different systems, particularly systems connected via the internet.
  - The z-score of the internet... [sort of]

# ZIP



- ZIP is a data compression and archival file format.
- A ZIP file contains one or more files that have been compressed or stored.
  - WinZip
  - WinRAR
  - Stuffit [+expander]

