

GLOSSARY OF DIGITAL TERMS

1G	The first generation of wireless mobile phone technology. It was introduced in the 1980's and based on analog cell phone standards. ⁱ
2G	The second generation of wireless mobile phone technology. 2G is based on digital and replaced the analog 1G standard. The ability to send a text message was introduced with 2G technology. 2G networks are rapidly being upgraded to 3G. ⁱ
2.5G	A group of bridging technologies between 2G and 3G wireless communication. 2.5G is a digital communication allowing e-mail and simple web browsing, in addition to voice. ⁱ
3G	The third generation of wireless mobile phone technology. It is digital high-speed and supports broadband voice, data, and multi-media communication over wireless networks. Many smartphone, tablet, and e-reader devices utilize 3G technology. ⁱ
4G	The fourth generation of high-speed mobile wireless communication technologies designed for new data services and interactive TV through a mobile network. It is expected allow voice, data, and high quality multimedia to be streamed in real-time. Various standardization and regulatory bodies estimate the launch of 4G networks commercially between 2012 and 2015. ⁱ
Accessibility	A characteristic of technology that allows people with disabilities to use it. For example, accessible websites can be navigated by people with visual, hearing, motor, or cognitive impairments. ⁱⁱ
Adobe Digital Editions	E-book reader software used for acquiring, managing, and reading e-books, digital newspapers, and other digital publications. ⁱⁱⁱ

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Aggregator	A website or software program that gathers (aggregates) and displays web content such as news headlines, blogs, and podcasts from multiple websites to a single location. It allows searches by keyword and provides summaries for browsing. It uses RSS or other types of feeds to find the content. ^{iv} Example: iTunes is a podcast aggregator.
Analytics	"The science of analysis". Common applications of analytics include the study of business data using statistical analysis in order to discover and understand historical patterns with an eye to predicting and improving business performance in the future. ⁱⁱⁱ
Applet or app	A small program or application that performs a specific task. Consumers that own Apple devices can purchase thousands of apps to download to their Apple mobile devices or tablets. Each app performs a specific task for business use, entertainment, etc. ^v
Application Service Provider (ASP)	A third-party organization that supplies software applications and/or software-related services over the Internet. By outsourcing information technology needs to an ASP, companies can save money, time, and other resources. ⁱⁱ
Asymmetric competition	A competitor refuses to compete in the traditional way, causing traditional organizations or industries to react to disruptive change. ^{vi}
Augmented reality	A live direct or indirect view of a physical real-world environment whose elements are augmented by virtual computer-generated imagery. ⁱⁱⁱ

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BitTorrent	<p>A peer-to-peer file sharing service used for distributing large amounts of data. Multiple computers are used to transfer a single file, thereby reducing the bandwidth required by each server. When a torrent download is started, the BitTorrent system locates multiple computers with the file and downloads different parts of the file from each computer. The result is a lower average bandwidth usage, which speeds up file transfers.^{vii}</p> <p>BitTorrent has become widely used for transferring pirated media such as program files, movies, and textbooks. See definition for Torrent.</p>
Blogs	<p>An informal website where the creator posts their personal thoughts, often in the form of a journal. Blog is a contraction of web log. Generally blogs will include links to other websites. Blogs are very popular and an easy way to share and acquire information.^{viii} An example of a blog is The Cite Blog by NACS Media Solutions.</p>
Click-through	<p>The act of clicking an online advertisement to get to the ad's destination.^{iv}</p>
Click-through rate	<p>The average number of clicks per hundred ad impressions (views). It determines which keywords are used and the marketing that attracts buyers.^{iv}</p>
Cloud computing	<p>Computing in which services and storage are provided over the Internet (or "cloud"). The technology enables content to be stored on a server so that users can access it at anytime from various mobile devices or PCs.ⁱⁱⁱ</p>
Common cartridge standard	<p>The first of three major standards that comprise a new generation of Digital Learning Services standards to support a new generation of learning technology. These are: organized and distributed digital learning content (Common Cartridge –CC); applications, systems, and mash-ups (Learning Tools Interoperability – LTI); and learner information: privileges and outcomes (Learning Information Services - LIS).^{ix}</p>

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Compliance with Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973	In order to be in compliance with the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973, any emerging technology used in a classroom environment must be accessible to the entire population of students with disabilities. ^x E-reader manufacturers are working to make their devices accessible to all but currently not all e-readers contain the necessary functionality.
Compliant (Standards-Compliant)	1) E-learning that meets established standards of, and has received official approval from, an accrediting organization. ⁱⁱ 2) A term used to describe websites relative compliance with web standards proposed by the World Wide Web Consortium (W3C). ⁱⁱⁱ See definition for World Wide Web Consortium.
Creative Commons	A non-profit organization devoted to expanding the range of creative work available for others to legally build upon and share. ^{xi}
Digital content	Refers to any information that is published or distributed in a digital form, including text, data, sound recordings, photographs and images, motion pictures, and software. ^{xii}
Digital divide	Refers to the gap that exists between those with effective access to digital and information technology, and those with very limited or no access at all. ^{xi}
Digital literacy	The ability to use digital technology, communication tools, or networks to locate, evaluate, use, and create information. ^{xi}
Digital native	A person who was born after the general implementation of digital technology, and as a result, has a familiarity with digital technology such as computers, the Internet, and mobile phones for their entire lives. ⁱⁱⁱ

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Digital Rights Management (DRM)	Functionality that enables copyright owners to have control over the usage of digital content. These access control technologies are used by manufacturers and publishers in order to contain the proliferation of pirated material. ^{xiii} DRM is utilized by companies such as Apple, Microsoft, and Sony. Currently there are many digital rights concerns that will affect the future of e-books and e-textbooks.
Disruptive technology	This term was coined by Clayton M. Christensen to describe a new, low-cost, often simpler technology that displaces an existing sustaining technology. While initially inferior to the technology that it displaces, the low cost creates a market that induces technological and economic network effects that provide the incentive to enhance and surpass the previous technology. Examples include the internal combustion engine, transistors, and the Internet. ^{xi}
E Ink	A specific proprietary type of electronic paper manufactured by E Ink Corporation. The display technology is designed to mimic the appearance of ordinary paper. Unlike a conventional flat panel display, which uses a backlight to illuminate its pixels, electronic paper reflects light like ordinary paper. Currently it is only available in black and white. ⁱⁱⁱ E Ink is commonly used in e-reader devices such as the Amazon Kindle. See definition for Electronic Paper.
Electronic book (E-Book)	A digital version of a printed book that has been optimized for on-screen reading. It is sometimes restricted with Digital Rights Management (DRM). E-books are usually read on dedicated hardware known as e-readers. Personal computers and some mobile devices can also be used to read e-books. ⁱⁱⁱ
Electronic book formats (E-Book Formats)	There are numerous e-book formats. Some are supported by major software companies such as Adobe with its PDF format, and others are supported by independent and open-source programmers. Each e-reader can support one or several of the formats. ⁱⁱⁱ Some examples of e-book formats include: Adobe PDF, EPUB, Mobipocket Reader, and Kindle.

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Electronic book reader (E-Reader) - Hardware	An electronic device that is designed primarily for the purpose of reading digital books (e-books) and periodicals and uses E Ink technology to display content to readers. The main advantages of these devices are portability, readability of their screens in bright sunlight, and long battery life. ⁱⁱⁱ Examples include: Amazon Kindle and Barnes & Noble Nook.
Electronic book reader - Software	See definition for Software Based E-Reader.
Electronic Journal (E-Journal)	Scholarly journals that can be accessed via electronic transmission. In practice, this means that they are usually published on the web. They are a specialized form of electronic document with the purpose of providing material for academic research and study. They are formatted like journal articles in traditional printed journals. ⁱⁱⁱ
Electronic paper (E-Paper)	Display technology designed to mimic the appearance of ordinary ink on paper. Unlike a conventional flat panel display, which uses a backlight to illuminate its pixels, electronic paper reflects light like ordinary paper. ⁱⁱⁱ E Ink is a type of E-Paper. See definition for E Ink.
Electronic Rights Management Information (ERMI)	A set of systems for identifying content, protecting copyright, and tracking the usage of electronic information. ^{xi}
Electronic textbook (E-Textbook)	A digital version of a printed textbook that has been optimized for on-screen reading.
Enhanced E-Book	An e-book that delivers something more than a digital snapshot of a print book. ^{xiv}
EPUB	A free and open e-book standard by the International Digital Publishing Forum (IDPF). EPUB is designed for <i>reflowable</i> content, meaning that the text display can be optimized for the particular display device used by the reader. ^{xv}

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First sale doctrine	<p>An exception to copyright that generally allows any person or entity who purchases an authorized, legal copy of a protected item to resell, lend, or give away that item.^{xvi}</p> <p>Applicable to a potential used e-book market; the first sale doctrine does not allow a copy to be made, and with e-books it is hard to confirm the deletion on the original device. Whereas when a paper book is sold or given away, it is no longer in the possession of the original owner, the comparative process of doing this with e-books is more complicated.</p>
Flash	<p>Software by Macromedia that enables designers to use simple vector graphics to create computer animations, which can be viewed by any browser with the correct plugin.^{xvii}</p>
Freemium	<p>A business model that works by offering basic web services, or a basic downloadable digital product, for free, while charging a premium for advanced or special features. The word "freemium" is created by combining the two aspects of the business model: "free" and "premium".ⁱⁱⁱ</p>
Freeware	<p>Software that is available for download and unlimited use without charge.^{xviii}</p>
Geolocation	<p>The identification of the real-world geographic location of an object, such as a cell phone or an Internet-connected computer terminal.ⁱⁱⁱ</p>
Google Analytics	<p>A free service to analyze the performance of a website, such as user activity and site usability, by providing statistics on the users of the website.^{iv}</p>

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Google Books	A web service from Google that searches the full text of books that Google has scanned, converted to text using optical character recognition, and stored in a digital database. Books in the public domain are available in "full view" and free for download. For in-print books, Google limits the number of viewable pages through a variety of access limitations and security measures, some based on user-tracking. For books that may be covered by copyright and where the owner has not been identified, only "snippets" (two to three lines of text) are shown, though the full text of the book is searchable. ⁱⁱⁱ
Google Book Search Settlement Agreement	An agreement between the Authors Guild, the Association of American Publishers, and Google in settlement of <i>Authors Guild et al. v. Google</i> , a class action lawsuit alleging copyright infringement. In October 2008, Google agreed to pay \$125 million dollars to settle the lawsuit. In November 2009, the parties amended the settlement agreement after the Department of Justice filed a brief suggesting that the initial agreement may violate US anti-trust laws. The amended settlement agreement has yet to be approved. ⁱⁱⁱ
HTML (Hypertext Markup Language)	The programming language used to create documents for display on the Internet. ⁱⁱ
HTTP (Hypertext Transfer Protocol)	The set of rules and standards that govern how information is transmitted on the Internet. ⁱⁱ
Inter-modal Competition	Refers to competition between dissimilar technologies, such as DSL and wireless technologies. ^{xi}
Intra-modal Competition	Refers to competition between similar technologies, such as in the e-reader market. ^{xi}
Kiosk	A computer terminal that provides information access via electronic methods. ⁱⁱⁱ

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LCD (Liquid Crystal Display)	A thin, flat electronic visual display that uses the light modulating properties of liquid crystals. LCD's are used in a wide range of applications including: computer monitors, PDA's (example: Blackberry and iPhone), and tablets (example: iPad). ⁱⁱⁱ Some e-readers such as the Barnes & Noble Nook contain both LCD and E Ink screens. The LCD is a color screen and allows for navigation and browsing the Internet while the E Ink screen black and white and used for reading. See definition for E Ink.
License	A right that gives a person or entity permission to do something which would be illegal if the person or entity did not have such permission. Usually the scope of the permission excludes ownership rights or privileges. For example, a license to use digital information gives a licensee permission to access and use the information under the terms and conditions described in the agreement between the licensor and the licensee. ^{xvi}
Mashups	A web service or tool that programmers develop by combining two or more tools to create a new service or tool. ^{iv}
Metadata	<p>Often described as "data about data." It provides information about a certain item's content. For example, an image may include metadata that describes how large the picture is, the color depth, the image resolution, when the image was created, and other data. A text document's metadata may contain information about how long the document is, who the author is, when the document was written, and a short summary of the document.</p> <p>Web pages often include metadata in the form of meta tags. Description and keywords meta tags are commonly used to describe the Web page's content. Most search engines use this data when adding pages to their search index.^{vii}</p>
Metatag	An HTML code line that identifies the contents of the webpage to search engine indexes. ^v

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Metaverse	A fictional virtual world where humans, as avatars, interact with each other and software agents, in a three-dimensional space that uses the metaphor of the real world. ^{xvii} See definition for Avatar.
Metrics	Measurements, assessments, and comparisons of data gathered from activities, resources, downloads, etc. ^{iv}
Micropayment technology	Technology that makes it easier for users to purchase goods and transfer money via their mobile devices. ^{xix}
Mobipocket	Amazon owned e-book file type. Compatible only with Amazon e-readers such as: Kindle 2 and Kindle DX. ^{xx}
Netbook computer	A rapidly evolving category of small, lightweight, and inexpensive laptop computers for general computing and accessing web-based applications. Netbooks can also be referred to as mini notebooks or ultraportables. ⁱⁱⁱ
News Feed	A web file which allows sites to send updated information, announcements, and news stories to other web services. Many blogs and wikis generate news feeds automatically. ^{xxi}
Next generation internet	A term used to describe the future network. It is proposed as being so pervasive, reliable, and transparent that it will be taken for granted. It will be a seamless part of life much like electricity or plumbing. ^{xi}
OLED (Organic Light Emitting Diodes)	Components used in a new type of screen display. Can be viewed in bright lighting conditions and at greater angles, unlike LCD's. ^{xxii}
Online Social Network	See definition for Social Networking Site.
Open Access	Resources that are openly available to users with no requirements for authentication or payment. ^{xxiii}
Open Source Software	Software for which the original program instructions, the source code, is made available so that users can access, modify, and redistribute it. The Linux operating system is an example of open source software. ^{xvii}

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Open Textbook	Textbooks that are freely available online for anyone to use. They are almost always published under open copyright licenses that allow online use, downloading, and printing for free. Open textbooks are free because the authors of the texts volunteered their time, effort, and expertise. ^{xxiv}
Orphan Works	Books which are under copyright but out-of-print and the rights holders are unknown or can not be located. ⁱⁱⁱ Google has scanned millions of these books and would like to make them available for purchase and reading via Google Books. Many groups have objected this and a judge has yet to rule if Google will be allowed to do so. See definitions for Google Books and Google Book Search Settlement.
PDF	Refers to the Adobe Acrobat file format for online documents. ^{xxv}
Peer-to-Peer Network (P2P)	A communications network that enables users to connect their computers and share files directly with other users, without having to go through a centralized server. ^{xvii}
Phishing	A form of Internet fraud that aims to steal valuable information such as credit cards, social security numbers, user Ids, and passwords. ^{xi}
Piracy (Textbook Piracy)	The illegal uploading/downloading of textbooks to/from file-share websites. ⁱⁱⁱ
Plug-and-Play	The ability for a personal computer's operating system to recognize and install--with little to no intervention by the user—new peripheral devices that are added to the computer. Also spelled plug-n-play or plug 'n' play. ^{xvii}
Plug-in	Software programs that enhance your browser and allow it to perform additional tasks such as playing audio, displaying video, and viewing documents as an integrated function of the browser. ^v
Podcast	A series of audio recordings organized into a program. Listeners can subscribe to a podcast (using RSS) and hear the latest recordings whenever they are made available. ^{xxi}

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Portability	Refers to the ability of a user to have their documents or services anytime, anyplace. ^{xviii}
Print-on-Demand (POD)	A revolutionary technology that enables the printing and binding of one book at a time, upon receipt of an order, using a specialized printing machine. Print-on-Demand eliminates problems including: returns of unsold books and the warehousing of stock. This allows for printing items at a fixed cost per copy, regardless of the size of the order. ^{xxvi}
Project Gutenberg	Volunteer effort to digitize and archive cultural works, in order to "encourage the creation and distribution of e-books". Many out-of-copyright books have been converted and are now available from the Project Gutenberg site. ^{xx}
Public Domain	Works are in the public domain if they are not covered by intellectual property rights at all, if the intellectual property rights have expired, and/or if the intellectual property rights are forfeited. ⁱⁱⁱ Many public domain books have been scanned and can be viewed in their entirety on the Google Books website.
Reflow	A term to describe the way the content of a page can resize (or reflow) to fit the size of the screen displaying the content. For e-reader devices, this means that the user can alter the size of the text on the screen to suit their preferences. Display formats like PDF do not support reflowing, but formats like EPUB and HTML do. ^{xxvii}
RSS Feed	A family of web feed formats, specified in XML and used for web syndication. RSS is used by news websites, blogs, and podcasting. In addition to facilitating syndication, web feeds allow frequent readers of websites to track updates on the site using an aggregator. ^{xviii}
Scalability	The degree to which a computer application or component can be expanded in size, volume, or number of users served and continue to function properly. ⁱⁱ

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Schema	1) A relatively simple textual description or representation of the internal structure of a database, including table names, element names, and relationships between elements. 2) One of several new entities that define the structure and content parameters for XML documents. ⁱⁱ
Search engine optimization	The process of increasing traffic to a website by optimizing it for the searches a user performs. This involves choosing specific and relevant keywords, emphasizing the topics that appear, making the pages more accessible, and many other factors. Generally, the higher a website's page rank using a desired keyword, the more likely it will get traffic. ^{iv}
Smartphone	Cell phones that can make calls, run software, play media, and connect to the Internet. ^{xxviii} Examples of smartphones include the Apple iPhone and Blackberry devices.
Social networking site	Refers to the services offered by many websites that help connect friends and colleagues with similar interests and skills, or by geographic location. Social Networking sites allow users to search for new friends based on these criteria. Examples include Facebook and MySpace. ^{iv}
Social Tagging	The practice of creating and managing tags on social websites to categorize online content such as pages, images/photos, and blogs. These tags or keywords are a word or phrase that describes the content. People can then search by a specific tag to retrieve all the content with that tag. ^{iv}
Software Based E-Reader	Programs that can run on various, multi-purpose devices, including a personal computer, which allows reading, sorting, and purchasing e-books. ⁱⁱⁱ
Streaming Media (Audio or Video)	Audio or video files that are sent in compressed form over the Internet and displayed by a media player program as they arrive. ⁱⁱ

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Style Sheets	In traditional print publishing and on the web, style sheets specify how a document should appear, standardizing elements such as fonts, page layout and line spacing, repeated content, and so forth. This helps ensure consistency across webpages. ^{xvii}
Tablet computer	A computer contained entirely in a flat touch screen that uses a stylus, digital pen, or fingertip as the primary input device instead of a keyboard or mouse which may or may not be included. ⁱⁱⁱ A popular tablet is the Apple iPad.
Tagging	A method of assigning keywords or phrases (tags) to online content such as websites, pages, bookmarks, photos, and blog entries. ^{iv}
Text-to-Speech	A technology that converts textual information, held in digital form, into computer-synthesized speech. It is important that e-readers include this functionality so that people with visual disabilities can use the device. ^{xxix}
Torrent	A file sent via the BitTorrent protocol. It can be just about any type of file, such as a movie, song, game, or application. Torrents are different from regular downloads in that they are usually downloaded from more than one server at a time. The BitTorrent protocol uses multiple computers to transfer a single file, thereby reducing the bandwidth required by each server. ^{vii} See definition for BitTorrent.
Ultra Mobile PC	A term coined by Microsoft for a small portable computer that is the size of a paperback book but features a powerful processor. ⁱⁱⁱ
Value-Added Services	In the context of the e-learning industry, value-added services include custom training needs assessment and skill-gap analysis, curriculum design and development, pre- and post-training mentoring and support, training effectiveness analysis, reporting and tracking tools, advisor services and implementation consulting, hosting and management of Internet- or intranet-based learning systems, integration of enterprise training delivery systems, and other services. ^{xvii}

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Virtual Community	A community on the Internet where people share common interests; an online community. ^v
Vook	A new innovation in reading that blends a book, high-quality video, and the power of the Internet into a single, complete story. Users can read a book, watch videos that enhance the story, and connect with authors and friends through social media all on one screen, without switching between platforms. ^{xxx}
VPN (Virtual Private Network)	A private network configured inside a public network. Offers the security of private networks with the economies of scale and built-in management capabilities of public networks. ^{xvii}
Web 2.0	The second-generation web services and communities such as social networks and wikis that facilitate online creativity, collaboration, and sharing. ^{iv}
Web Analytics	Refers to the assessment of website traffic and performance. ^{iv}
Widgets	Small tools that appear as items on a desktop, website, or blog that allow users to quickly and easily perform a certain action. ^{iv}
WML (Wireless Markup Language)	XML-based language that allows a reduced version of webpages' text to be displayed on mobile phones. ^{xvii}
World Wide Web Consortium (W3C)	The main international standards organization for the World Wide Web. The primary activity of W3C is to develop protocols and guidelines that ensure long-term growth of the web. ^{xxxi}
XLS (Extensible Style Sheet Language)	A webpage design language that creates style sheets for XML pages, allowing developers to specify how and where information is displayed on the page. ^{xvii}
XML (Extensible Markup Language)	A next-generation webpage coding language that allows site designers to program their own markup commands, which can then be used as if they were standard HTML commands. ^{xvii}

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- ⁱ <http://www.networkdictionary.com/wireless/GenerationsMobileWireless.php>
- ⁱⁱ <http://esut.edu.ng/Glossary.html>
- ⁱⁱⁱ <http://www.wikipedia.org/>
- ^{iv} <http://www.podcastfaq.com/glossary/>
- ^v <http://www.worldwidelearn.com/elearning-essentials/elearning-glossary.htm>
- ^{vi} <http://blog.hecker.org/2005/09/09/asymmetric-competition/>
- ^{vii} <http://www.techterms.com/>
- ^{viii} <http://www.cybermediacreations.com/elearning/glossary.html>
- ^{ix} <http://www.imsglobal.org/cc/index.html>
- ^x <http://arstechnica.com/gadgets/news/2010/08/for-visually-impaired-most-e-readers-barely-measure-up.ars>
- ^{xi} <http://www.digitalstrategy.govt.nz/Resources/Glossary-of-Key-Terms/>
- ^{xii} <http://infosat.tamu.edu/students/glossary.htm>
- ^{xiii} <http://www.uwex.edu/ics/design/glossary.htm#a>
- ^{xiv} <http://e2bu.com/>
- ^{xv} <http://www.idpf.org/>
- ^{xvi} <http://www.library.yale.edu/~llicense/definiti.shtml>
- ^{xvii} <http://www.astd.org/LC/glossary.htm>
- ^{xviii} NACS Education Team
- ^{xix} http://www.nytimes.com/2009/06/22/technology/22pay.html?_r=1
- ^{xx} <http://www.coolreaders.com/glossary.asp>
- ^{xxi} <http://ets.tlt.psu.edu/learningdesign/web20glossary>
- ^{xxii} <http://www.xaar.com/glossary.aspx>

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xxiii <http://www.cs.cornell.edu/wya/DigLib/MS1999/Glossary.html>

xxiv <http://www.lib.ncsu.edu/dspc/opentextsfaq.html#question1>

xxv <http://www.e-learningguru.com/gloss.htm>

xxvi http://www.paraview.com/print_on_demand.htm

xxvii <http://www.planetebook.com/mainpage.asp?webpageid=70>

xxviii <http://www.sag.org/content/new-media-glossary>

xxix <http://www.teleware.com/resources/jargon-buster.asp>

xxx <http://vook.com/>

xxxi <http://www.w3.org/Help/>