

**Emerging E-Learning Links:
101 websites to illustrate
new forms of online
learning**

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The following 101 web addresses have been selected from over 5000 links to emerging e-learning websites and publications that are documented in three recent research reports I have written – *Emerging E-learning Content: new approaches to delivering engaging online training* (2005), *Emerging E-learning Technologies: tools for developing innovative online training* (2006), and *Emerging E-learning Services: cutting edge practices for supporting innovative online training* (2007). Sampling this list of links will give you a good idea of the immense changes that are happening in the world of e-learning. All three reports are available at: <http://www.brandonhall.com>.

Accessibility Design

CAST is a non-profit organization that advocates for Universal Design for Learning (UDL) and carries out a lot of research and development in this area. This is the organization that originally developed the Bobby software tool for reviewing the accessibility of Web sites.

<http://www.cast.org>

Advising and Counselling

Therapy Online, in conjunction with the Faculty of Social Work at the University of Toronto, offers certificate programs in cybercounselling and resources for professional helpers. For details go to:

<http://www.therapyonline.ca/cybercounselling/default.htm>

Affective Computing

Rosalind Picard, author of the 1997 groundbreaking book, *Affective Computing*, heads the MIT lab on affective computing. The lab's Web site has many resources to check out at:

<http://affect.media.mit.edu>

Agents

Professor Michael Wooldridge of the University of Liverpool has written over 200 articles and 13 books on the behaviors of software agents and on multi-agent systems. See his publications at:

<http://www.csc.liv.ac.uk/~mjw>

Animations

BrainPOP is an educational website for K-12 students, and their teachers and parents. It is just bustling with animations. There is a 14 day free trial at:

<http://www.brainpop.com>

Analytics

Companies like Spotfire are driving innovation in the data visualization area by enabling business users to rapidly model data in an easy-to-use interface – cutting IT or power users out of the analysis process and accelerating business decision making.

<http://www.spotfire.com>

Archiving

The Internet Archive WayBackMachine is a Web site that has archived millions of Web pages from earlier years. It is especially useful in finding the content for an old Web site that no longer exists or where content has been radically changed. To use this resource, simply type the Web address into the search box and click the “Take Me Back” button.

<http://www.archive.org/web/web.php>

Artificial intelligence

Latent Semantic Analysis (LSA) is a technique used in the automatic marking of essays, and are purported to be more consistent than human scorers. For a portal on the latent semantic analysis, see:

<http://lsa.colorado.edu>

Assessments

Assessment skills for the 21st Century are listed and described on this web site:

<http://www.21stcenturyskills.org/assess21>

Audio and Podcasting

One web site that tries to capture some of the soundscape of the world is National Geographic’s Pulse of the Planet web site. Listen in at:

<http://pulseplanet.nationalgeographic.com>

Authoring tools

Brandon Hall Research has an *Authoring Tool Knowledge Base* that compares 100 of the best e-learning content development applications. See:

http://www.brandon-hall.com/publications/atkb/atkb_firms.shtml

Avatars

CodeBaby is software that creates online talking avatars that can be used in educational settings. See a case study and a presentation on how to create an online avatar at:

<http://www.codebaby.com/solutions/elearning>

Blended Learning

The Department of Education and Training in New South Wales, Australia maintains a web page on blended learning, with many “exemplars” on how it works. Try them at:

<http://www.schools.nsw.edu.au/learning/yrk12focusareas/learntech/blended/index.php>

Blogging

James Farmer is a frequent and critical contributor to the online debates on the future of technology and education. His blog is at:

<http://blogsavvy.net/category/bloggng-for-education>

Brain-based Learning

BrainMap - a set of software tools which interface with a database management system to increase the user’s understanding of the function and anatomy of the human brain.

<http://ric.uthscsa.edu/projects/brainmap.html>

Browsers

The Mozilla Project set out to develop open source standards for Web browsers and mail clients. Their efforts have resulted in the FireFox Web browser and the Thunderbirds mail client.

<http://www.mozilla.com>

Business-based Learning

Chief Learning Officer is an online magazine for business executives containing many articles on business-based e-learning. Subscribe for free at:

<http://www.submag.com/sub/ch>

Change Management

eLearning Reviews has a list of over 20 articles on change management in general and 10 articles on change management in higher education. Access these lists at: <http://www.elearning-reviews.org/topics/culture/change-management>

Classroom Response Systems

eInstruction's Classroom Performance System is used in K-12, higher education, corporate, and military settings. <http://www.einstruction.com>

Collaborative and Cooperative Learning

David Woolley maintains a website dedicated to all aspects of collaborative work environments, as well as web conferencing. <http://www.thinkofit.com/webconf/index.htm>

Communication Tools

AcademicTalk is a tool used for synchronous collaborative argumentation. It is being developed into a transportable, re-usable, and adaptable tool that can be used in a range of educational contexts to realize structured, and yet tailored and flexible, pedagogical approaches to dialogical learning. <http://www.jisc.ac.uk/deletacademictalk.html>

Community and Network Development

Tomoye's *Ecco* software for developing "communities of practice" has received great reviews. Tomoye Ecco rapidly creates an environment that supports context creation around new knowledge, stimulates idea generation, connects peers, and promotes a culture of sharing across functional units. <http://www.tomoye.com>

Competency-based Learning

CanDo is an open source student competency tracking system. CanDo is built on the SchoolTool platform. SchoolTool is a project to develop a common global school administration infrastructure freely available under an Open Source license. <https://launchpad.net/products/cando>

Consulting

A number of Web sites have tips for hiring a consultant. For example, see the list of points to consider on the EDP Consulting site: <http://www.edpci.com>

Content Management Systems

Drupal is an open source content management system. According to its official Web site, “Drupal can support a variety of Web sites ranging from personal Weblogs to large community-driven Web sites.”

<http://drupal.org>

Creativity and Innovation

An amazing map of world-wide creativity projects is maintained by the Next Generation Foundation at:

<http://www.ngf.org.uk/flash.htm>

Credentials Verification

The Web site GetEducated.com offers a free service to check the accreditation of universities and colleges offering diplomas. The *Diploma Mill Police* can be visited at:

<http://www.geteducated.com/services/diplomamillpolice.asp>

Custom Content Development

Brandon Hall Research has a knowledge base of over 110 custom content developers.

<http://www.brandon-hall.com/publications/cckb/cckb.shtml>

Data Mining

Reel Two and GeneEd have launched a powerful new text-mining tool for life sciences research. GO KDS has classified the full set of more than 12 million MEDLINE documents against the list of Gene Ontology terms.

<http://www.reeltwo.com/index.php?page=news&article=2002100101>

Decision-support Software

BNH Expert Software is a Canadian company that produces decision support software for e-learning.

<http://www.bnhexpertsoft.com>

Digital Rights Management

The Creative Commons site provides free tools for authors, artists, and educators to mark their creative work the freedoms they wanted to carry. Instead of “all rights reserved,” the Creative Commons allows for “some rights reserved.”

<http://creativecommons.org>

Discussions

The Teaching, Learning and Technology group at the State University of New York (SUNY) also has a set of 14 guidelines for “enhancing online discussions” at:

<http://tlt.suny.edu/discussion.htm>

Display Technologies

IO2 Technology features its “heliodisplay” that shows images hovering in mid-air.

<http://www.io2technology.com/technology/overview>

e-Books

The oldest collection of eBooks is the Gutenberg Project, started by Michael Hart in 1971. Over 16,000 out-of-copyright titles have already been scanned and posted to the Internet:

<http://www.gutenberg.org>

e-Drama and Role-playing

The University of Birmingham in the UK is researching how to develop realistic eDrama systems for the Internet. The aim is “to use electronic computer systems or the Internet to simulate drama, such as improvisation or role-play, between several human users.” Details at:

<http://www.cs.bham.ac.uk/research/projects/edrama>

e-Portfolios

The Open Source Portfolio Initiative (OSPI) is a community of individuals and organizations collaborating on the development of a non-proprietary, open source electronic portfolio.

<http://www.osportfolio.org>

e-Science and Online Laboratories

The e-Skeleton Project allows medical students to practice the finer points of anatomy from home. Found at:

<http://www.eskeletons.org>

Experiential Learning

The Apple Learning Interchange is an excellent site for exploring a wide variety of online experiences:

<http://ali.apple.com>

Free Choice Learning

An excellent example of an online exhibit is the Ancient Egypt site from the British Museum. Go to:

<http://www.ancientegypt.co.uk>

Games and Puzzles

Savannah is a strategy-based adventure game where children play at being lions in a savannah. They used hand-held GPS devices to navigate and try to emulate strategies used by lions to roam around the simulated environment.

<http://www.nestafuturelab.org/showcase/savannah/savannah.htm>

Gesture and Facial Recognition

Charles Cohen maintains a Web site on gesture recognition research, including identifying commercial products in this area.

<http://www.cybernet.com/~ccohen/gesture.html>

Graphics Tools

By now there are hundreds of 2-D and 3-D software tools on the market. One of the best sites to locate reviews and ratings of 3-D software is 3DLinks.com.

<http://www.3dlinks.com/index.cfm>

Haptics

Body-based devices include gloves, suits, and exoskeletal devices can be obtained from Immersion Corporation.

<http://www.immersion.com>

Immersive Environments

Second Life is a 3D digital world that is imagined, designed and created by its "residents". You can chat, play games, and build houses and other structures as a resident of this world. There are also learning opportunities within the Second Life Environment.

<http://secondlife.com>

Information and Graphic Design

The Design for Learning and Learning Design project is funded by the UK's Joint Information Systems Committee (JISC) and is developing a prototype for learning design that can be used by the general e-learning community.

<http://www.noe-kaleidoscope.org/pub/lastnews/last-0-read760-display>

Inquiry-based Learning

The Visual Geophysical Exploration Environment (VGEE) allows undergraduate students to work with discovering relationships in geophysical data sets using an inquiry-based approach:

<http://www.dpc.ucar.edu/vgee>

Instructional Design

Instructional design is based on learning theories. Greg Kearsley has developed an exhaustive list of learning theories and learning concepts.

<http://tip.psychology.org>

Interactive Learning Activities

The “Cut-the-Knot” website lists almost 600 interactive mathematics activities. See them at:

<http://www.cut-the-knot.org/front.shtml>

Interface Devices

MIT Media Lab’s *I/O Brush* "is a new drawing tool to explore colors, textures, and movements found in everyday materials by 'picking up' and drawing with them."

<http://web.media.mit.edu/~kimiko/iobrush/>

Language Learning

Since 1996, Japanese-Online.com has been providing free learning services for people who want to study Japanese. Try them at:

<http://www.japanese-online.com>

Learning Management Systems

Brandon Hall Research has a web resource called “LMS Central,” with extensive documentation on learning management systems. Brandon Hall Research provides access to individual profiles of more than 50 learning management systems. Each profile is 30 to 50 pages long and contains a review of the system and detailed specifications regarding the system's features and characteristics.

http://www.brandon-hall.com/solutions/lms_central.shtml

Learning Objects and Repositories

MERLOT is the largest repository of learning objects, with almost 15,000 items.

<http://www.merlot.org/Home.po>

Learning Space Design

The Teaching with Technology Web site at the Massachusetts Institute of Technology (MIT) has a section on “learning spaces” describing the various clusters of resources on campus.

<http://web.mit.edu/teachtech/learning.html>

Libraries

The New York Public Library has a digital gallery full of cultural artifacts.

<http://digitalgallery.nypl.org/nypldigital/index.cfm>

Live Presentations and Webinars

The Liberty Science Center in Jersey City, New Jersey has a “Cardiac Classroom”, a unique two-way audio and video interactive surgical experience. Guests can watch the operation in progress and speak with medical staff as it takes place.

http://www.lsc.org/livefrom/cardiac/cardiac_home.html

Location-Based Technologies

Google Earth is an amazing view of the earth, with abilities to show the location of almost any service or feature that is searchable from a database.

<http://earth.google.com>

Mapping

Want to have students do a history project using old maps? David Rumsey has over 11,000 historical maps online at:

<http://www.davidrumsey.com/index.html>

Mashups and Web Services

For an article that I wrote on “Mashups, SOAP and Services” go to the Publications area of Operitel Corporation.

<http://www.operitel.com>

Metacognitive Learning

Meta-Learning Lab is a group of consultants who help foster performance improvements through metacognitive strategies.

<http://www.meta-learninglab.com>

Metadata, Ontologies and Taxonomies

The IMS Global Learning Consortium has developed guidelines for using metadata with learning objects.

http://www.imsglobal.org/metadata/mdv1p3pd/imsmd_bestv1p3pd.html

Metaphorical Learning

Learn about wines by taking them out to dinner. Play the Wine Dating Game at:

<http://speedzone.sympatico.msn.ca/Platform/WineDating>

Mobile Devices

The Tate Modern Art Museum has launched a pilot multimedia tour of its galleries using handheld computers. Visitors are given a Pocket PC that uses a wireless network to track where they are in the gallery and that provides an instant visual guide to the exhibits.

<http://news.bbc.co.uk/1/hi/technology/2225255.stm>

Narrative Learning

The radio is an excellent medium for story-telling. For a great example, see the Radio Diaries website at:

<http://www.radiodiaries.org>

Natural Language Processing

Eduforge lists 36 natural language processing projects in education in English and another 16 in other languages.

http://eduforge.org/softwaremap/trove_list.php?form_cat=274

Open and Free Content

UNESCO maintains a list of free and open source software for e-learning.

http://www.unesco.org/iiep/virtualuniversity/forums2.php?queryforums_id=9&querychapter=1

Peer-To-Peer Technologies

SETI@home links and uses donated computer processing capacity to analyze data collected from a radio telescope located in Puerto Rico. It is an example of grid computing and the power of peer-to-peer technologies.

<http://www.seti.org/science/setiathome.html>

Personal Learning Environments

ELGG is an open source personal learning environment that is already working.
<http://elgg.net>

Personalization

The Metropolitan Museum of Art, New York allows Web site visitors to build a My Met page where they can gather information together on their favorite works of art.
https://www.metmuseum.org/mymetmuseum/index.asp?HomePageLink=mymetmuseum_1

Polls, Questionnaires and Surveys

You can make your own polls and surveys and post them on the web for free at:
<http://freeonlinesurveys.com>

Portals

Elearning Europa is a portal on all aspects of e-learning in Europe. As of early 2006, the portal offered information on more than 20,000 projects on e-learning and thousands of articles. There are also directories of publications and authors
<http://www.elearningeuropa.info>

Presentations

Macromedia has a set of e-learning recorded seminars that provide a flavor of what live presentations are like on the Internet. Experience them at:
<http://www.macromedia.com/resources/elearning/presentations>

Problem-based Learning

The University of Illinois has several examples of problem-based learning in university courses. Find out more at:
http://www.cites.uiuc.edu/edtech/teaching_methods/pedagogy/inquiry/index.html

Project-based Learning

The students of Mountlake Terrace High School math class were asked to design a school for the year 2050. The process they went through and their results are at:
<http://www.edutopia.org/other/reeder/open.php>

Project Management

Beverly Pasion and I edited a book of readings on “e-learning project management”, entitled *Plan to Learn*. Download a free copy from the Canadian e-Learning Enterprise Alliance (CeLEA).

<http://www.celea-aceel.ca>

Quality Assurance

The European Quality Observatory is a network and community of European experts and leaders in the field of quality in e-learning. Join at:

<http://www.ego.info>

Rapid E-Learning Tools

The world of microlearning is covered by the [microlearning.org](http://www.microlearning.org/) Web site, which contains information on resources, conferences, and other good stuff.

<http://www.microlearning.org/>

Remote Sensing

Landscape characteristics, geospatial data, and interactive mapping using satellite images of Chesapeake Bay and the Mid-Atlantic are available to teachers and students at:

<http://chesapeake.towson.edu>

Robotics

The LEGO Mindstorms Robotics Invention System allows children to produce their own working robots and learn how to program them.

<http://mindstorms.lego.com>

Scenario-based Learning

The US Navy uses Scenario-based learning in their training. See the Navy’s Human Performance Center website for a description of their work in “Case-based learning, Scenario-based learning, and Situated Cognition.” Access it at:

https://www.spider.hpc.navy.mil/index.cfm?RID=TTE_OT_1000065

Search Engines

Copernic is a meta-search engine that uses 90 search engines grouped into 10 categories. It eliminates duplicate entries and broken links.

<http://www.copernic.com>

Security

The Security in e-Learning Web site provides tutorials on this topic, as well as other resources.

<http://www.e-learning-security.org/moodle>

Semantic Web

Edutella is an open source project that applies Semantic Web concepts.

<http://edutella.jxta.org/>

Simulations

Celestia is a free space simulation that lets you explore our universe in three dimensions. It runs on Windows, Linux, and Mac OS X. Try it at:

<http://www.shatters.net/celestia/index.html>

Situated Learning

The EFIOS website lists web resources on “communities of practice, communities of interest”. See:

<http://www.efios.com/cop-garden.htm>

Smart Labels and Tags

The Ruth Lilly Health Education Center (RLHEC) has students studying nutrition by picking up food models and placing them on a cafeteria tray. The RFID computer interface was developed by Pervasive Technology Labs at Indiana University.

http://uitspress.iu.edu/102605_meal.html

Social Bookmarking

Del.icio.us is a social bookmarking Web site that allows users to keep their favorite Web sites, music, and/or books and find them again. They can then share these bookmarks with others and browse related topics.

<http://del.icio.us>

Social Networking

The Brandon Hall Network is an online gathering of learning professionals. Join for free at:

<http://www.brandonhall.com>

Support

ActionPlanMapper is based on the idea that learning that takes place in a formal setting such as a classroom, conference, or seminar needs to be supported after the training session is over and the learner has gone back to work.

<http://www.zfco.com/apm.asp>

Telepresence

Conceived by Dreamworks as a response to travel concerns after the terrorist attacks of Sept. 11, 2001, Halo allows meeting participants to make eye contact, share files and documents, and shout over each other to try to be heard, just like during a real meeting.

<http://www.hp.com/halo/index.html>

Tours

Technology columnist Jon Udell has a tour of his home town, Keene, New Hampshire. What is unusual is the use of Google Maps to show the route of the tour and the use of sound, video and photographs as you follow the mapped route. Take the tour at:

http://weblog.infoworld.com/udell/gems/gmap2_flash.html

Translation and Localization

LearnFlex, the learning management system from Operitel Corporation, is unique in allowing multiple language libraries to be installed and then switched on the fly according to user profiles.

<http://www.operitel.com>

Tutoring and Mentoring

AnySubject.com has tutors available for hire in many high school and university level subjects. You can hire them at:

<http://www.anysubject.com/online-tuition-us.asp>

Video-enhanced Learning

Would you like to experience a videoblog? There are several posted at the Videoblogging Universe. View them at:

<http://videoblogging-universe.com>

Virtual Reality

The *Ancient Spaces* Web site from the University of British Columbia allows users to reconstruct and play with historical properties. It aims to bring experiential and game-based learning to a traditional curriculum in a student-driven, modularized fashion.

<http://ancient.arts.ubc.ca/index.html>

Visualizations

Visualcomplexity.com is a site that links to several hundred visualizations of complex data sets. Over 30 are “knowledge networks”. Look at them at:
<http://www.visualcomplexity.com/vc/index.cfm>

Voice over Internet Protocols (VoIP)

Skype is probably the best known VoIP service, with unlimited free computer to computer calling and low charges for computer to phone connections.
<http://www.skype.com>

Wearable Computing

The Wearable Computing Laboratory at the University of Oregon has several active projects on wearable computing that can be applied to learning.
<http://www.cs.uoregon.edu/research/wearables/index.html>

Web Feeds

Stephen Downes, senior research officer for the National Research Council of Canada, has been an early advocate and promoter of the use of Web feeds in e-learning. Read his article written specifically for educators.
http://www.downes.ca/files/RSS_Educ.htm

WebQuests

A set of example WebQuests is provided at DiscoverySchool.com. Go to:
<http://school.discovery.com/schrockguide/webquest/webquest.html>

Wikis

The best known wiki is Wikipedia, the online encyclopedia that has been built with tens of thousands of volunteer contributors. There are now over 1,600,000 articles in English in Wikipedia.
<http://www.wikipedia.org>

Workflow Learning

DST Systems has developed software called Automatic Work Distributor to manage workflow and task assignments. Read more about it at:
http://www.awdbpm.com/downloads/awd_brochures/mission_critical_work_management_solutions.pdf

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Gary Woodill started his career as a classroom teacher in 1971, and has been involved with the use of computers in education since 1974, when he was introduced to the PLATO system for computer assisted instruction as part of his Masters studies in educational psychology. He helped develop educational materials for a Canadian videotext system in the late 1970s, and in 1985 started a course for teachers on computer in education at Ryerson University in Toronto.

In 1984 Gary received a doctorate in applied psychology from the Ontario Institute for Studies in Education (OISE) at the University of Toronto. In 1993 he co-founded an educational multimedia company that developed a number of educational CD-ROMs for children. In 1998 he designed an adaptable learning management system and has developed over 60 online courses for various corporate clients. He lives with his wife in Port Hope, Ontario, Canada. He can be reached at gary@brandon-hall.com.

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