

# RESOURCES ON DIGITAL LITERACY/TECHNOLOGY & WORKFORCE DEVELOPMENT

## OVERVIEW MATERIALS

**The Relationship Between Literacy Proficiency and the Digital Divide Among Adults With Low Education Attainment** (2008) by Clare Strawn, Portland State University. A recurrent topic of concern among those working to address the digital divide is the parallel gap in computer use and proficiency of basic literacy skills and how these two skill sets are inter-related (Carvin, 2000; Digital Divide Network, 2005/2006). No matter how many free computers are made available, the argument goes, people can't or won't be able to access information technology if they have poor reading, writing, problem solving and technical skills. This paper informs the discussion by examining the relationships between basic literacy proficiency and use of computer technology among adults who did not finish high school. <http://www.lsal.pdx.edu/littech.pdf>

**Technology-Based Learning Strategies**. Prepared by Social Policy Research Associates, this paper is the result of a Quick Research Task Order to assist the Employment and Training Administration gain a better understanding of the concept and state of technology-based learning and the application of technology-based learning in government, industry, and education. The report provides an overview of recent trends in industry and media that have made technology-based learning such a rapidly growing phenomenon. The report then defines the term and compares and contrasts it with related terms, such as e-learning and distance learning, and next describes the benefits and challenges that are associated with providing learning via technology. The report also provides brief descriptions of the main delivery modes, as well as methods and tools used in providing technology-based learning programs. Examples from government, industry, and education are highlighted. The conclusion describes a framework with which to measure the success of technology-based learning programs and looks at future questions for technology-based learning. [www.doleta.gov/reports/papers/TBL\\_Paper\\_FINAL.pdf](http://www.doleta.gov/reports/papers/TBL_Paper_FINAL.pdf)

### **“Using the Internet to Teach Workplace Literacy Skills”**

This Dec. 2007 PowerPoint presentation provides an overview of the workforce crisis and presents examples of technology-enhanced learning (e.g., using training podcasts that can be downloaded onto cell phones, laptops, and iPods).

[www.techvision21.com/team/McCain\\_2007\\_Using\\_the\\_Internet\\_to\\_Teach\\_Workplace\\_Literacy\\_Skills.ppt](http://www.techvision21.com/team/McCain_2007_Using_the_Internet_to_Teach_Workplace_Literacy_Skills.ppt)

**Top Enterprise 2.0 Tips for Improving Workforce Collaboration in 2009**. Jan. 23, 2009. This online article counts down the top 5 challenges described by Enterprise 2.0 CEOs.

<http://www.socialcomputingmagazine.com/viewcolumn.cfm?colid=635>

**“Digital Quality of Life” Presentation to the Council on Foundations** by Dr. Robert D. Atkinson, President, The Information Technology and Innovation Foundation. Dec. 2, 2008.

[www.cof.org/files/Documents/Education\\_Collaborations/Webinars/isphilanthropyonboard.PDF](http://www.cof.org/files/Documents/Education_Collaborations/Webinars/isphilanthropyonboard.PDF)

## TECHNOLOGY-BASED RESOURCES FOR INSTRUCTORS & TRAINERS

**Communicating at Work**, an interactive site for the Asian-American Civic Association in Boston, uses audio, video, dialogs, games, and quizzes to help low-intermediate/advanced ESOL students develop work-related "soft" skills. <http://aaca-boston.org/caw>

**KeyTrain™** is a comprehensive, yet easy-to-use system for improving the basic skills measured by the WorkKeys® Assessment System. Using KeyTrain, you can assess your potential WorkKeys score, review topics in each WorkKeys skill area, and practice problems similar to those on an actual WorkKeys assessment. The

KeyTrain system includes targeted, self-paced instruction, pre- and post-assessments, a complete learning management system and an occupational job profiles database. These components can be used to help individuals learn, practice and demonstrate the skills they need to succeed in the jobs and careers they desire. KeyTrain is being used by One-Stops, WIA's, secondary schools, businesses, WorkKeys Solution Provider sites, school-to-work consortiums and individuals. KeyTrain is available on CD-ROM's, print, or over the Internet.  
<http://www.keytrain.com/>

### **WIN Solutions for Life-learning**

Worldwide Interactive Network, Inc. (WIN) offers a wide array of e-learning solutions for education, workforce development, economic development, learning management and Career Readiness. WIN delivers skill-based training to improve workplace skills for workforce development, adult education, and basic skills training for citizens in the workforce and students entering the workforce across the globe. WIN courseware includes over 1,200 hours and more than 22,000 pages of print and electronic instructional curriculum that prepares individuals for WorkKeys assessments. The curriculum includes 20+ hours of instructional material for all levels of WorkKeys and preparation materials with Web-delivered Spanish translation and Natural Voice technology. WIN courseware is available in print, LAN, and Internet delivery options. It ensures concept mastery, not just test preparation.  
<http://www.w-win.com/index.htm>

### **Surfing for Substance**

E. Hacker and M. Capehart, Literacy Assistance Center

This resource introduces literacy teachers to using the Internet as an instructional resource. It is organized into six sequential steps that cover the benefits (and difficulties) of using the Internet for instruction, how to lay the groundwork for staff training, what teachers need to know, how to select and evaluate sites, how to create web-based lesson plans, and how the Internet can be used for staff development. Most sections include lesson plans.  
<http://hub1.worlded.org/docs/surfing/>

### **SPCLC Basic Computer Skills Curriculum**

This is a downloadable and very comprehensive curriculum with Word, Excel and PowerPoint activities for beginning, intermediate and advanced ESL learners. Activities start from very basic skills such as turning on the computer to higher-level word processing activities.  
<http://www.nzliteracyportal.org.nz/imsdirector.php?resid=2677&ruid=2182>

**Microsoft's Digital Literacy Curriculum Version 2** (Updated October 1, 2007). Microsoft offers a Digital Literacy Curriculum consists of five courses: Computer Basics; The Internet and the World Wide Web; Productivity Programs; Computer Security and Privacy; and Digital Lifestyles. Each course has an e-learning module and an assessment. You can also take the Certificate Test, which covers topics from all five courses. If you pass the Certificate Test, you can print out a personalized Digital Literacy Certificate. Digital Literacy version 2 teaches generic ICT skills and concepts, and features screen shots and simulations from Windows Vista and the 2007 Microsoft Office system to illustrate and provide hands-on examples for students.  
<http://www.microsoft.com/About/CorporateCitizenship/Citizenship/giving/programs/UP/digitalliteracy/eng/Curriculum2.msp>

### **Using Camtasia Studio to Create Recorded Lectures and Podcasts**

Put video to work in your teaching! Give your presentation once—share it as many times as you want. Record video lessons that demonstrate visual or technical subjects. Record a live presentation or lecture to give learners a rewind button for class. Help them learn at their own pace...or catch up from an absence. Camtasia Studio software is smart, quick to learn, and feature rich! Easily record the activity on your PC screen...plus audio and webcam. Record live during class or in advance. Edit for polish, or keep it simple. Add self-quizzes and callouts. Share crystal-clear videos in all the formats students want: iPod/iPhone, web, blog, and more.  
<http://www.techsmith.com/camtasia.asp>

**Florida TechNet** is a grant funded through the Florida Department of Education, Division of Workforce Education to provide technology assistance and training to Adult and Community Education providers throughout Florida. Through the Florida TechNet website, practitioners are able to access web-based training opportunities as well as find resources that will enhance their jobs. <http://www.floridatechnet.org/index.htm>

**The Outreach and Technical Assistance Network (OTAN)** provides electronic collaboration and information, and support for instructional technology and distance learning to literacy and adult education providers in California. <http://www.otan.us/>

**Train 4 Trade Skills** is part of a specialized training organization that encompasses both IT based expertise and practical skills to provide the UK's most revolutionary and unique ways to learn a trade skill. Train 4 Trade Skills offer the only trade training skills courses that combine three great ways to learn, through a unique blend of book based theory, practical workshops and virtual reality PC based training, to help you qualify you as a plumber, electrician or handyman. This learning provider offers full tutor support and easy to follow, step by step modules. Once a student completes one part of the course and returns his/her work for grading, the next stage of the course automatically follows. <http://www.train4tradeskills.com/>

**Sandwich Preparation Training Course.** Illumen Group, which developed this sandwich preparation training course, partners with corporate and academic entities involved in knowledge transfer through learning, training and marketing. [http://illumenstudios.com/solutions/food\\_training/](http://illumenstudios.com/solutions/food_training/)

**“Bestimation”: Using basic calculators in the numeracy classroom.** Jan. 9, 2007. Coben, Diana, Newmarch, Barbara, and Valerie Rhodes.

This is one of several linked publications arising from the five Effective Practice Studies carried out by the NRDC. This report looks at how the imaginative use of calculators can enhance teaching and learning in adult numeracy classes. It suggests a range of activities to develop estimation and problem-solving skills, providing learners with opportunities for self-directed and self-paced learning. [http://www.nrdc.org.uk/publications\\_details.asp?ID=108](http://www.nrdc.org.uk/publications_details.asp?ID=108)

**PlanetRead** is a not-for-profit organization registered in CA, USA and in India. It is dedicated to reading and literacy development around the world and has a solid track record of work in India. PlanetRead was originally created around the idea of Same Language Subtitling (SLS), now a globally recognized innovation for mass literacy and reading development on TV. SLS for literacy was first conceived and researched in 1996 at the Indian Institute of Management, Ahmedabad. Then PlanetRead pioneered the concept of “Same-Language Subtitling” (SLS) for mass literacy, by suggesting its implementation on the immensely popular Bollywood film songs on TV in India. PlanetRead has the simple vision of a reading planet – a planet where everyone can read and have access to interesting and affordable reading opportunities in both his/her native or other language(s). We contribute to literacy worldwide by innovating and implementing simple, scalable, and cost-effective solutions, especially using mass media and information technologies. We have already used SLS on several song-based TV programs on Doordarshan, India's national broadcaster. Our main target group is the early-literates, people who are officially “literate” but who cannot read, for example, the headlines of a newspaper. PlanetRead's “karaoke” approach to literacy provides automatic and regular reading practice to over 200 million early-literates in India. In addition, nearly 270 million illiterate people are motivated to become literate. <http://planetread.org/>

**America's Army game**, which is rated "T" for Teen by the ESRB, has become one of the most popular computer games in the world. Launched in July 2002, *America's Army* has penetrated contemporary culture and is one of the most recognizable game brands as a result of its unique inside perspective of the U.S. Army and its exciting gameplay. As the game's popularity continued to grow with each of its dozens of new version releases, the Army has expanded its brand through a variety of products including console and cell phone games, *America's Army* merchandise such as t-shirts, the Real Heroes program which tells the stories of heroic Soldiers, training applications for use within the military and government sectors, and the incredible Virtual Army Experience. In the *America's Army* game, players are bound by Rules of Engagement (ROE) and grow in experience as they navigate challenges in teamwork-based, multiplayer, force versus force operations. In the game, as in the Army, accomplishing missions requires a team effort and adherence to the seven Army Core Values. Through its emphasis on team play, the game demonstrates these values of loyalty, duty, respect, selfless service, honor, integrity and personal courage and makes them integral to success in *America's Army*. In keeping with the dynamic nature of Soldiering, the *America's Army* game will continue to expand and will allow players to explore the Army of today, tomorrow and the future. <http://www.americasarmy.com/>

**Goodwill Community Foundation Learn Free** offers the public free online learning opportunities with support from the GCF Community Foundation. Through its online computer, technology, and life skills training, learners acquire the skills they need to succeed in the workforce and life. [www.gcflearnfree.org](http://www.gcflearnfree.org)

**Games2train** marries the fun of playing a videogame or computer game together with all the information needed to accomplish learning or training objectives. Games2train's mission is to provide a more effective solution to training, marketing, and communication by bringing the engagement of videogames and computer games to as many learning processes and markets as possible, in order to "make the boring fun." We offer business, military and educational learning and training solutions in the form of Online Single Player Games; Online Multi-Player and Multi-Team Games; Mobile Games (Handheld and Cell-Phone); Meeting and Classroom Enhancement Games; Custom-Designed Games and Video Game Mods. All our games allow customers to create and change their own content. <http://www.games2train.com/>

#### **Math in the Hair Salon (2007 You Tube video)**

You Tube is increasingly being used by adult education teachers to capture lessons and feedback on a variety of topics. This video from You Tube shows the math skills that are required in a typical hair salon.

<http://www.nzliteracyportal.org.nz/imsdirector.php?resid=3558&ruid=2182>

**TV411** is a television series for adults who want to strengthen their literacy skills. Produced by the Adult Literacy Media Alliance (ALMA), TV411 has enriched literacy and community outreach programs since 1998. Today it brings TV411 to hospital waiting rooms to teach adults the reading and math skills essential for good health.

<http://www.tv411.org/>

## **EMPLOYER USE OF TECHNOLOGY-BASED TOOLS**

**"Companies Explore Virtual Worlds As Collaboration Tools"** by C.G. Lynch. February 6, 2008.

Virtual worlds like Second Life aren't just for games; companies are experimenting with virtual environments for everything from training exercises to meeting spaces for remote workers. But the technology still has pitfalls.

[http://www.cio.com/article/180301/Companies\\_Explore\\_Virtual\\_Worlds\\_As\\_Collaboration\\_Tools](http://www.cio.com/article/180301/Companies_Explore_Virtual_Worlds_As_Collaboration_Tools)

**"Con Edison Adopts eLearning as Workforce Evolves"** by James Mueller. September 2008.

Con Edison Inc. adopts eLearning through its 21st century Learning Center on the banks of the East River in Queens, northeast of the United Nations. The 15-year-old Learning Center was the brainchild of former Con Edison chairman Eugene R. McGrath. Today its directors, managers and instructors are capitalizing on eLearning programs to train and offer continuing education and basic courses to the electric, gas and steam workforce at two regulated utilities—Consolidated Edison Company of New York Inc. and Orange and Rockland Utilities.

[http://uaelp.pennnet.com/display\\_article/339012/22/ARTCL/none/none/1/Con-Edison-Adopts-eLearning-as-Workforce-Evolves/](http://uaelp.pennnet.com/display_article/339012/22/ARTCL/none/none/1/Con-Edison-Adopts-eLearning-as-Workforce-Evolves/)

**Retailers Making A Difference Through E-Learning** by Paulo Goelzer, Ph.D. March 2008 IGA GROCERGRAM of the IGA Coca-Cola Institute.

[http://www.igainstitute.com/portuguese/resources/documents/IGAInstitute\\_Mar07.pdf](http://www.igainstitute.com/portuguese/resources/documents/IGAInstitute_Mar07.pdf)

**Payless Car Sales Moves to Virtual Training.** Bison Press Release, June 16, 2008.

Payless Car Sales announced today that it has entered into an exclusive partnership agreement with Kaizen MultiMedia, LLC of Ft. Lauderdale, Florida to provide them with the ability to create an in-house virtual training program for use throughout their national franchise system. "Maintaining a properly trained staff is no easy task in an industry like ours where the turnover rate of employees, especially sales staff, is pretty substantial", said Mike Harley, Payless president and COO. "Training is expensive and, done correctly, takes a great deal of time. We believe that creating a "Payless Virtual Training" program will provide our dealers with an efficient, effective and economical answer to this recurring problem." [http://www.bison.com/press\\_PaylessCarSales\\_06162008](http://www.bison.com/press_PaylessCarSales_06162008)

### **“IBM Partners with OBT to Give English Language Learners a New Tool: Technology.”**

On January 16, 2008, Opportunities for a Better Tomorrow (OBT), one of New York City’s leading employment and training organizations, showcased IBM’s Reading Companion at its Open House. Reading Companion was recently donated to support OBT’s English as a Second Language (ESOL) classes. The event was attended by over 50 people. Reading Companion is a web-based program that allows students to read in English into a microphone. The innovative technology is programmed to correct pronunciation, based on the number of “points” that the student hits in a word. To support the new technology, IBM also donated 16 new computers, a projector, and headsets. <http://www.obtjobs.org/newindex.php/61?PHPSESSID=32ddf543e0dc091b837bf0cc0f53af85>

**Driving Simulator: The Virtual World.** Werner Enterprises is the only motor carrier in the U.S. employing a Full Motion Truck Simulator to evaluate driver skills. Designed by Lockheed-Martin, (the same company that builds simulators for the military and major airlines) the simulator is a six-axis full motion system, based upon a Freightliner Century, Detroit Diesel Series-60, with an Eaton-Fuller Super-10 Transmission. Utilizing this equipment in a safe environment, the instructors can duplicate virtually any weather or road condition, night or day. They can also duplicate practically any mechanical failure. It is so realistic many drivers find themselves trying to talk to an oncoming rig on the CB radio. This system allows the Training Center instructors to evaluate drivers’ strengths and weaknesses without exposing the driver, the equipment or fellow motorist to danger. <http://www.werner.com/content/res/drv/trainingtech/drvsim/>

### **Stories from the Woods: Virtual Training, Real Skills**

The John Deere Forestry Simulator is an effective tool for teaching the next generation of loggers the skills they need to operate heavy equipment. It teaches these skills in the Cut to Length application without risk to new harvesting or forwarding equipment, and it teaches in a way that the “video game generation” enjoys and understands.

[https://www.deere.com/en\\_US/cfd/forestry/deere\\_forestry/info\\_center/feature\\_stories/pf\\_virtual-training.html](https://www.deere.com/en_US/cfd/forestry/deere_forestry/info_center/feature_stories/pf_virtual-training.html)

**“Falmouth officers enter virtual training world”** by Aaron Gouveia. January 16, 2009. Cape Cod Online.

<http://www.capecodonline.com/apps/pbcs.dll/article?AID=/20090116/NEWS/901160316/-1/NEWS07>

**“Shove Ha’ Penny” – Car Industry Employees Learn with Pub Game.** July 24, 2007. Employees at UK car manufacturers now have two interactive learning tools at their fingertips that help them to understand the mathematics behind performance and productivity processes. <http://www.innovations-report.com/html/reports/automotive/report-87761.html>

**“Virtual Reality Spreading In Business: Companies Take Technology From Games To The Office”** by James M. Klatell. Jan. 14, 2007.

[http://www.cbsnews.com/stories/2007/01/14/business/main2359139\\_page2.shtml](http://www.cbsnews.com/stories/2007/01/14/business/main2359139_page2.shtml)

**“Hotel chain puts virtual training game in employees’ hands”** by Christopher Calnan, Austin Business Journal Staff. Jan. 16, 2009.

<http://www.bizjournals.com/albany/othercities/austin/stories/2009/01/19/story9.html?b=1232341200^1762228>

**“Hospitality Training Takes on Virtual Feel at Hilton”** by John Gaudiosi. Jan. 28, 2008. Serious game developer Virtual Heroes has teamed up with Hilton Garden Inn to create a new interactive training tool called “Ultimate Team Play.” The game, which utilizes Epic Games’ Unreal Engine 3 technology, is the first of its kind in the hospitality industry, according to Virtual Heroes founder and CEO Jerry Heneghan.

[http://localtechwire.com/business/local\\_tech\\_wire/news/story/2361545/](http://localtechwire.com/business/local_tech_wire/news/story/2361545/)

**“First Paramedic Course To Use Second Life.”** Medical News Today. Oct. 13 2008. You receive an emergency call. A female has collapsed in the street. You arrive outside the nightclub to find a young female slumped against a wall. There is no other bystander in the area and the caller has left the scene. As you approach the patient you notice she is singing in a slurred fashion. What should you do? Paramedic students studying at the Faculty of Health and Social Care Sciences, a partnership between St George’s, University of London and Kingston University, can find the answer using Second Life, an internet-based virtual world.

<http://www.medicalnewstoday.com/articles/125259.php>

**“Brunswick EMS uses virtual reality to train for disasters: 3-D simulator is only one in this part of the country”** by Shannan Bowen. November 27, 2008.  
[http://www.starnewsonline.com/article/20081127/ARTICLES/811270300?Title=Brunswick EMS uses virtual reality](http://www.starnewsonline.com/article/20081127/ARTICLES/811270300?Title=Brunswick%20EMS%20uses%20virtual%20reality)

**“Virtual Disasters: EMS Training Goes High-Tech”** by Ed Mund. EMSresponder.com. Aug. 26, 2008.  
[http://www.emsresponder.com/print/Emergency--Medical-Services/Virtual-Disasters--EMS-Training-Goes-High-Tech/1\\$8059](http://www.emsresponder.com/print/Emergency--Medical-Services/Virtual-Disasters--EMS-Training-Goes-High-Tech/1$8059)

**“Virtual training's no game.”** American Public Media. November 23, 2006. While you're enjoying Thanksgiving dinner, thousands of police officers, firemen and EMTs are on duty. Sometimes there's not a lot to do, so they keep their skills sharp playing video games.  
[http://marketplace.publicradio.org/display/web/2006/11/23/virtual\\_trainings\\_no\\_game/](http://marketplace.publicradio.org/display/web/2006/11/23/virtual_trainings_no_game/)

**“Virtual Reality For Construction Zones: Computer Scientists Test Safety Of Construction Workers In Virtual Reality Environment.”** April 1, 2008. ScienceDaily.com. Safety scientists developed a virtual environment that simulates the look and feel of walking on the elevated, barrier-free planks used in the construction industry. Their research is helping to build understanding of the factors that contribute to accidents. The virtual environment allows the researchers to experiment and find preferred strategies to assist people attempting to regain their balance and to keep from losing it at all. [http://www.sciencedaily.com/videos/2008/04/12-virtual\\_reality\\_for\\_construction\\_zones.htm](http://www.sciencedaily.com/videos/2008/04/12-virtual_reality_for_construction_zones.htm)

**“Goodwill Using Web Technologies to Drive Business”** by Sarah Perez. March 3, 2008. Goodwill has just launched, MyGoodwill, located at [www.goodwill.org/group/my/home](http://www.goodwill.org/group/my/home). This site is a new collaboration portal offering e-learning and best practices for Goodwill's employees and members of affiliate organizations worldwide. Using concepts and methodologies similar to social networks, Goodwill allows its MyGoodwill members to collaborate with communities of their peers in order gain access to specific knowledge and resources. The portal was created with open source software, a decision that Goodwill made based on the functionality, capability, and maturity of the open source model, but primarily, the cost savings it provided.  
[http://www.readwriteweb.com/archives/goodwill\\_using\\_web\\_technologies.php](http://www.readwriteweb.com/archives/goodwill_using_web_technologies.php)

**“The Job Interview, Starring Your Avatar”** by Matt Villano. February 10, 2008. NYTimes.com. As big companies are spreading their brands to Web-based social networking communities like Facebook and MySpace, a handful of employers are also exploring the world of Multi-User Virtual Environments, or MUVES. Second Life is one of these MUVES. A handful of corporate customers have bought virtual space, called “islands,” in this virtual reality to use for “in world” meetings, and a growing number in this group is recruiting there, too. Linden Lab doesn't keep statistics on how many of its corporate customers handle hiring this way, but it says the number has grown exponentially since Second Life began in 2003.  
<http://www.nytimes.com/2008/02/10/jobs/10pre.html?ref=technology>

**“Virtual reality: Online avatars emerge as effective communication, enrollment tool”** by Kelley M. Butler. August 1, 2008. Employee Benefit News. <http://ebn.benefitnews.com/asset/article/629381/virtual-reality-online-avatars-emerge-effective.html>

**“California Prisons Using Virtual Reality to Train Inmates in Welding Skills.”** June 19, 2008. Virtual Worlds News. SGI announced today that the California Department of Corrections and Rehabilitation had purchased 20 SimWelder units from it and channel partner VRSim. The units were delivered in January, training has just been completed, and classes of 27 students will soon begin at 20 different sites, ranging from maximum to minimum security. The goal is to provide new vocational skills to inmates without the heavier resource cost of actual welding tools. <http://www.virtualworldsnews.com/2008/06/california-pris.html>

**“Virtual world is the safest for miners.”** August 1, 2008. The University of Adelaide--University News and Events Web page. <http://www.adelaide.edu.au/news/news28561.html>

### **Tech Insider: An Expert Blog on the State of Federal Technology**

**It May be Cool, But Is It Better?** Allan Holmes. June 9, 2008.

[http://techinsider.nextgov.com/2008/06/it\\_may\\_be\\_cool\\_but\\_is\\_it\\_an\\_im.php](http://techinsider.nextgov.com/2008/06/it_may_be_cool_but_is_it_an_im.php)

### **“Virtual business, for real?”**

**It's cheaper to meet in Second Life than in a ballroom**” by Mark Baard. Boston Globe online. November 10, 2008. [http://www.boston.com/business/technology/articles/2008/11/10/virtual\\_business\\_for\\_real/](http://www.boston.com/business/technology/articles/2008/11/10/virtual_business_for_real/)

**“Virtual Worlds at Work: Working in Virtual Worlds.”** May 5, 2008. This podcast discussed how companies are turning to virtual worlds for collaboration, training, and a number of other business activities.

[http://www.businessweek.com/mediacenter/podcasts/guide\\_to\\_tech/guidetotech\\_05\\_05\\_08.htm](http://www.businessweek.com/mediacenter/podcasts/guide_to_tech/guidetotech_05_05_08.htm)

**“Business, and Startups, in Second Life”** by [Eve Tahmincioglu](#). August 22, 2008. Whether they're designing eco-homes or a new mass transit system, entrepreneurs are finding virtual worlds provide them with an inexpensive, low-risk launching pad.

[http://www.businessweek.com/magazine/content/08\\_68/s0808041522849.htm](http://www.businessweek.com/magazine/content/08_68/s0808041522849.htm)

**“Strait-laced in the real world, workers do business in fantasy guise in a parallel reality on the Web”** by

Alana Semuels. May 10, 2008. <http://articles.latimes.com/2008/may/10/business/fi-secondlife10>

**“Managers struggle to keep tabs on gossipy avatars.”** June 13, 2008. The rise of Web 2.0 technology, with the spread of sites such as MySpace and Facebook, and the popularity of 3-D virtual reality environments such as Second Life, where workers create their own "avatars", is posing a real challenge to employers.

<http://www.management-issues.com/2008/6/13/research/managers-struggle-to-keep-tabs-on-gossipy-avatars.asp>

**A virtual chainsaw to train lumberjacks.** Blog posted by Roland Piquepaille. August 16, 2007.

<http://blogs.zdnet.com/emergingtech/?p=664>

**“Virtual Training”** by Rick Markley. June 1, 2008. Two decades ago, writers for the television show *Star Trek: The Next Generation* created rooms where the characters could interact with holographic scenarios. Some characters used them to train for combat; others used them to solve tricky repair problems to the ship.

Unfortunately, members of the fire service cannot sort out their training problems on a holodeck, at least not yet. However, there are a growing variety of simulation tools for things such as driver training and fireground command.

There also are advances in simulation technology for training command-level responders in mass-casualty incidents involving chemical, biological, radiological or nuclear agents.

[http://firechief.com/technology/computers-software/firefighting\\_virtual\\_training\\_0608/](http://firechief.com/technology/computers-software/firefighting_virtual_training_0608/)

**“On-the-Job Video Gaming: Interactive training tools are captivating employees and saving companies money.”** Mar. 27, 2006. BusinessWeek.com. This article discusses employers' use of video game technology to train employees.

One online training game teaches portion control and customer service in a cartoon-like simulation of a Cold Stone store. Players scoop cones against the clock and try to avoid serving too much ice cream. The company says more than 8,000 employees, or about 30% of the total, voluntarily downloaded the game in the first week. "It's so much fun," says Holshouser. "I e-mailed it to everyone at work." Games are especially well suited to training technicians. In one used by Canon, repairmen must drag and drop parts into the right spot on a copier. As in the board game *Operation*, a light flashes and a buzzer sounds if the repairman gets it wrong. Workers who played the game showed a 5% to 8% improvement in their training scores compared with older training techniques such as manuals, says Chuck Reinders, who trains technical support staff at Canon.

This spring, the company will unveil 11 new training games. Games are also being developed to help teach customer service workers to be more empathetic. Cyberlore, now rechristened Minerva Software Inc., is developing a training tool for a retailer. The game requires players to use the art of persuasion to sell products, and simulates a store, down to the carpet and point-of-purchase display details.

[http://www.businessweek.com/magazine/content/06\\_13/b3977062.htm](http://www.businessweek.com/magazine/content/06_13/b3977062.htm)

**“Virtual Education: From educational video games to interactive virtual training simulators, researchers at Ohio University are tapping into the technology trend”** by Deanna Kerslake. Nov. 18, 2008. This article includes information on the use of games to train the workforce. Beyond the classroom, interactive gaming is useful for teaching and training people for the workforce. In the spring of 2006, Ohio University’s GRID Lab was awarded \$100,000 from the Board of Regents to create a video game to train firefighters for Owens Community College in Toledo. The video game simulates the college’s 110-acre “city” and has the capability to replicate burning buildings and overturned chemical rail cars. In the game, four players must identify the source of the fire and rescue a trapped civilian. The three-dimensional game takes into account various firefighting concerns, such as their breathing masks, the use of tools, and the different crawling or stooping positions necessary to get through a burning building. Though it seems to have all the elements of the next big commercial game hit, the purpose for developing the game was practical. <http://news.research.ohiou.edu/perspectives/index.php?item=522>

**“Firms Go Online to Train Employees.”** *The Wall Street Journal*, Aug. 13, 2007. In the spring of 2004, Mr. Dam’s company tried planting some seeds in a new field -- online training. Golden Harvest hired EJ4 LLC, a video-based online trainer in St. Louis, to produce and post online videos for teaching sales reps how to sell Golden Harvest seeds. Mr. Dam tracked the results and found that employees were watching the videos, mostly on Saturdays or Monday mornings. Sales increased, as did demand for more courses, and training costs fell to less than \$100 per person from between \$175 and \$200. <http://www.marketwatch.com/News/Story/Story.aspx?guid={C702E7DF-3A99-4566-9A89-A96A1615A102}&siteid=nwhpf>

## HIGHER EDUCATION USES OF TECHNOLOGY-BASED TOOLS

**College nursing education simulations in the 3D virtual world of Second Life** are used to train RNs in a college program at Evergreen Island, Second Life. John Miller, R.N., a nursing instructor at Tacoma Community College in Tacoma, Washington has developed a number of islands or worlds in Second Life in which nursing students can role-play in real-life settings. With demonstrations on the Web, the simulations show the power of Second Life to help students gain an appreciation of the decisions that must be made quickly in the health care industry, and also an idea of the kinds of knowledge needed and how one will be required to be able to process the information. Miller’s YouTube channel is quite interesting because it allows one to take a look at how he has used Second Life in nursing education. <http://www.youtube.com/jsmillerRN>

**“Nurses to use ‘virtual patients’ in training.”** Dec. 5, 2008. Glasgow Caledonian University in Scotland has purchased an island in the *Second Life* game that includes the campus nursing and midwifery school’s virtual laboratory. Nursing students will be able to play this popular online game to enhance their training. <http://www.healthcarerepublic.com/rss/news/article/867637/Nurses-use-virtual-patients-training/>

## USING TECHNOLOGY FOR CAREER EXPLORATION

**Career Voyages Web site** resulted from a collaboration between the U.S. Department of Labor and the U.S. Department of Education. It is designed to provide information on in-demand occupations along with the skills and education needed to attain those jobs. The Web site helps users to: 1) learn about occupations experiencing growth and for which there are an increasing number of job openings; 2) become aware of the skills and education required for these occupations; and 3) learn about training and education that is available to prepare for these occupations and to advance in a career path. Career Voyages specifically highlights for each industry the tools and technology of an occupation typically requiring just a high school diploma, an occupation requiring some postsecondary education and training, and an occupation requiring either a bachelor’s degree or higher. For example, in Transportation, one can learn about the tools and technology used by Industrial Truck and Tractor Operators; Aircraft Mechanics and Service Technicians; and Airline Pilots, Copilots, and Flight Engineers. In addition, the Web site contains videos that describe a range of occupations and opportunities for work in those occupations. For example, one can watch a video on what metalforming is and the kinds of job opportunities

available in this field of advanced manufacturing courtesy of the Precision Metalforming Association (PMA) Educational Foundation. Additional career videos focus on automotive, construction, hospitality, retail, transportation, and other industries. <http://www.careervoyages.gov/toolsandtechnology-main.cfm>

**America's Career InfoNet** helps individuals explore career opportunities to make informed employment and education choices. The Web site features user-friendly occupation and industry information, salary data, career videos, education resources, self-assessment tools, career exploration assistance, and other resources that support talent development in today's fast-paced global marketplace. [www.CareerInfoNet.org](http://www.CareerInfoNet.org)

## **CAREER NETWORKING RESOURCES**

**nuResume** is the first career network for students to showcase themselves and achieve career success. Students can create online resumes and multimedia portfolios, and then send them to recruiters, schools, employers, scholarship sources, etc. Career centers such as the one at Foothill College in California use Web 2.0 technology by creating a page on nuResume to engage with their students, including connecting into Facebook, virtual mentoring, blogging and career networking. <http://www.nuresume.com/>

## **PROFILES OF WORKFORCE PROGRAMS USING TECHNOLOGY**

### **Innovations in Action: Access Workforce Solutions**

Since 2003, Workforce Solutions, the Lower Rio Grande Valley Workforce Development Board in Texas has operated the Workforce Solutions Online Learning Community to provide customized training opportunities for workers. The program utilizes an in-home learning system by Business Access that blends mentoring, personal development, learning theories, partner collaboration to support individuals and increase their career prospects, employment retention, wages and, ultimately, long-term self-sufficiency. After a classroom orientation at the Workforce Center, participants receive a laptop with high-speed wireless connectivity to access the Workforce Solutions Online Learning Community from their home. Training in the home takes away the barriers of childcare and transportation for participants who work or have young children. Training categories are: Digital Literacy Training; Work Readiness Training; Vocational Education/Career Training; Education Directly Related to Employment, ABE/GED Training; Employment Soft Skills Training; Financial Literacy Training; Personal Readiness and Life Skills Training; and English as a Second Language. Other activities include: Career Exploration; Résumé Building; and Job Search. The program is targeted to TANF and Food Stamp recipients, individuals with disabilities, and the underemployed. <http://www.workforce3one.org/view/3000723343405975242>

### **Advanced Technology Training and Information Networking (ATTAIN)**

In 2001, The State University of New York University Center for Academic and Workforce Development (UCAWD), through funding support from the New York State Legislature, created the Advanced Technology Training and Information Networking (ATTAIN) project to promote digital parity in New York's economically challenged communities. Through this initiative, technology labs are placed in communities where residents can have access to the Internet, state-of-the-art hardware and interactive, multimedia software. The resident users are able to enhance their employability and academic skills in an ATTAIN lab, as well as gain invaluable insight into how technology profoundly affects the lives of the entire family. All of the project's software and services support incumbent workers and those interested in entering the workforce. Many of the individuals who were mentioned above earn less than \$15,000 annually and mainly comprise the households that do not have access to computers or the Internet. For African-American and Latino adults, the workplace and job training centers provide the main access to technology. <http://www.attain.suny.edu/labs.php>

### **Microsoft Unlimited Potential–Community Technology Skills Program**

Microsoft believes that by working with partners to create relevant training opportunities and innovative tools for people who are underserved by technology, we can help foster social and economic opportunities that change people's lives and transform communities. The Microsoft Unlimited Potential–Community Technology Skills Program is a global effort that promotes workforce development and IT skills training programs in underserved

communities. Microsoft provides cash grants, software, and specialized curriculum to nonprofit community technology centers (CTCs) around the world. The Community Technology Skills Program provides support for technology skills training, ranging from basic computer literacy to the use of advanced business productivity applications. This training helps individuals learn about technology and gain the skills they need for employment in today's workforce. Microsoft supports these opportunities through donations of cash, software, curriculum, and technical expertise, with a focus on nonprofit CTCs that make IT skills training a priority, enable community members to share the learning experience, and are open and accessible to the public.

<http://www.microsoft.com/About/CorporateCitizenship/us/CommunityInvestment/CommunityTechSkills.msp>

### **Plaza Comunitaria**

This unique partnership between Chattanooga State and the Mexican Consulate in Atlanta provides a free-of-cost educational opportunity to Latino residents of Southeast Tennessee. Only the second of its type in the Southeastern United States, Chattanooga State's Plaza Comunitaria provides Latinos with a variety of instruction/programs including literacy, elementary, and secondary education. Materials are provided free-of-charge by the Mexican government. GED and ESL classes are provided by Chattanooga State's Adult Education Department. The Plaza also offers internships as tutors for students of Spanish language in area colleges and universities. Plaza Comunitaria teaches three ways: 1) in traditional classrooms with books and tutors; 2) with educational television with videos and CDs; and 3) with computer technology (online). Its technology-enhanced training offers: classroom computers with Internet connection; access to the Conevty educational Web site and links to other educational Web sites; and online courses.

<http://www.chattanoogastate.edu/Humanities/hufplaza.asp>

## **SKILLS ASSESSMENT & CERTIFICATION**

### **ACT's WorkKeys System & the National Career Readiness Certificate**

WorkKeys<sup>®</sup> Foundational and Personal Skills assessments provide reliable, relevant information about workplace skill levels. WorkKeys Foundational Skills assessments measure cognitive abilities such as applied mathematics, reading for information, and locating information. WorkKeys Personal Skills assessments are designed to predict job behavior and measure the full potential of individuals. <http://www.act.org/workkeys/>

**The CASAS Workforce Skills Certification System (WSCS)** measures student achievement in the areas of academic skills, occupational knowledge, and work experience - as well as pre-certification learning gains. WSCS provides the foundation to prepare a skilled and able entry-level workforce. With a complete system of assessments to measure readiness for work, WSCS offers job candidates a valuable advantage by documenting specific effective workplace behaviors and job-related skills. WSCS provides employers a validated transcript of job-candidate's capabilities. Employers can determine the extent to which candidates can succeed in available jobs when they know the academic and interpersonal skills of the candidates. Those candidates that demonstrate advanced skills in multiple skill areas are eligible to earn a certificate. The CASAS Workforce Skills Certificate provides clear documentation of an individual's readiness for entry-level employment in key skill areas such as Reading Comprehension, Critical Thinking, Math, Problem Solving, Writing, Teamwork, Oral Communication, and Customer Service. In addition, CASAS offers QuickSearch, a database of more than 2,000 commercially published instructional materials correlated to the CASAS *Competencies*. These resources assist educators to target learning objectives in their curriculum.

<https://www.casas.org/home/index.cfm?fuseaction=home.showContent&MapID=2057>

**Learning Resources, Inc. (LRI)** is soft skills assessment system that has assessed over 3,000,000 current or prospective workers. LRI provides practical tools to economic and workforce development organizations and professionals seeking to strengthen the effectiveness of future and incumbent workers. Its valid, criterion-referenced, video-delivered programs (called AccuVision) measure soft skills required in 9 job-categories across a wide range of industry sectors. Jobs range from entry-level (low-wage/low-skill) to managerial. LRI's assessment process identifies where individuals and groups have effective workplace behaviors, where further development is needed and it provides strategies and resources to enable people to develop skills where needed. LRI programs can be converted to allow for assessment over the Internet. <http://www.learning-resources.com/>

### **The National Work Readiness Credential**

To measure value creating relationship skills, this web-based assessment uses real world scenarios in four modules: 1) Situational judgment; 2) Oral language; 3) Read with understanding; and 4) Use math to solve problems. Individuals must go to a certified assessment site to be tested. Assessment sites can be located at different types of organizations including: business, community colleges, workforce development agencies and community based organizations. There are over 130 assessment sites nation-wide. When individuals successfully complete the assessment they receive a National Work Readiness Credential as confirmation that they have the skills to add value on the frontline in entry-level workplaces. <http://www.workreadiness.com/>

## **PROFESSIONAL DEVELOPMENT/KNOWLEDGE SHARING RESOURCES**

**Workforce<sup>3</sup> One** is an e-learning, knowledge sharing web space that offers workforce professionals, employers, economic development, and education professionals a dynamic network featuring innovative workforce solutions. Online learning events, resource information, and tools help organizations learn how to develop strategies that enable individuals and businesses to be successful in the 21st century economy. <http://www.workforce3one.org/page/home>

### **Sloan Center on Innovative Training and Workforce Development at Rutgers**

**University:** This web site describes the work of a relatively new center that is promoting on-line learning and other practices to support workforce development. The Center recently hosted a two-day national conference in Washington, DC that brought together researchers, funders, and service providers from around the U.S. to discuss new approaches to workforce development that promote efficiently integrated services and uses of distance technologies. <http://www.itwd.rutgers.edu/mainPages/index.htm>

### **Adult Literacy Education (ALE) Wiki**

Learn about adult literacy education, including English language learning, numeracy, and adult basic and secondary education, through this wiki. Add knowledge from your experience teaching adult learners, from research or professional wisdom, or from your experience as an adult learner. The ALE Wiki is a community of practice with links to research for practitioners, researchers, learners and others. (A wiki is a page or collection of Web pages designed to enable anyone who accesses it to contribute or modify content, using a simplified markup language.)

The **Instructional Technology Council (ITC)** provides leadership, information and resources to expand and enhance distance learning through the effective use of technology. An affiliated council of the American Association of Community Colleges established in 1977, ITC represents higher education institutions in the United States and Canada, and is leader in advancing distance education. ITC is constantly working to raise awareness about the benefits of distance learning, instructional telecommunications, and future needs and possibilities. ITC tracks federal legislation that will affect distance learning, conducts annual professional development meetings, supports research, and provides a forum for members to share expertise and materials. <http://www.itcnetwork.org/>

**The Rapid E-Learning Blog** shares practical tips and tricks to help anyone become a rapid e-learning pro. It is hosted by Tom Kuhlmann who has over 15 years of hands-on experience in the training industry. <http://www.articulate.com/rapid-elearning/>

**eLearn Magazine** provides information on best practices and case studies in e-learning. The website contains articles on topics including online learning for seniors, online training for health care workers, using game shows as an instructional tool, and learning through blogging. <http://www.elearnmag.org>

**The eLearning Guild** is a member-driven online information center and Community of Practice where anyone involved in the design, development, and management of web-based educational or instructional content (e-Learning) can identify and access resources needed to ensure that their organizations' projects are successful, engage in a professional peer network, and focus on expanding their own professional skills, knowledge, and expertise. Guild membership offers a variety of benefits and services — most included with membership and some requiring separate purchase — that can increase members' knowledge, skills, and expertise. Many

members use a combination of the Guild's online resources, Learning Solutions eMagazine, Online Forums, Research, Conferences, and Expositions as their primary source for professional development. The Web site includes information on best practices for delivering virtual classroom training. <http://www.elearningguild.com/>

### **Technology and Literacy Discussion List of the National Institute for Literacy (NIFL)**

The National Institute for Literacy online discussion lists give thousands of literacy stakeholders on-going professional development opportunities where participants can discuss the literacy field's critical issues; share resources, experiences, and ideas; ask questions of subject experts; and keep up-to-date on literacy issues. Each discussion list is moderated by a national organization with expertise in the topic area. <http://www.nifl.gov/lincs/discussions/discussions.html>

**The Association for the Advancement of Computing in Education (AACE)**, founded in 1981, is an international, not-for-profit, educational organization with the mission of advancing Information Technology in Education and E-Learning research, development, learning, and its practical application. AACE serves the profession with international conferences, high quality publications, leading-edge Digital Library, Career Center, and other opportunities for professional growth. <http://www.aace.org/>

## **PROGRAM MANAGEMENT & ASSESSMENT TOOLS**

### **Building Successful Demand Driven Workforce Development Partnerships: The Human Capital Academy Model**

The workforce system, higher education, and private sector organizations bring numerous and diverse assets, expertise, and resources to workforce skill and talent development. How do these partners collaborate to support regional talent development strategies? This PowerPoint presentation describes the Human Capital Academy (HCA) model, which incorporates online learning. The Full Employment Council and the University of Central Missouri have implemented this model in the Kansas City metropolitan area to educate and train workers in order to meet the needs of a competitive workforce. HCA's TrainToWork Program meets the human capital needs of expanding employers (demand) by building a job-ready workforce through the process of "re-skilling" currently displaced workers (supply). HCA's TrainToAdvance Program identifies the human capital needs of expanding employers and provides effective training solutions that facilitate the "advancement" of their existing workforce. [http://www.workforceinnovations.org/speaker\\_docs/HCA%20WIC%20Presentation%20FINAL.pdf](http://www.workforceinnovations.org/speaker_docs/HCA%20WIC%20Presentation%20FINAL.pdf)

**Project IDEAL** is a consortium of states working together to develop effective distance education programs for adult learners. Through collaborative research and practice, the consortium works to raise the quality of distance education across the country. The Project IDEAL Support Center at the University of Michigan provides member states with technical assistance for program planning, teacher training, and program evaluation. <http://www.projectideal.org/index.html>

### **Online Learning Programs for Low Wage Workers within the One-Stop Delivery System.** May 2005.

Developed by: Sloan Center on Innovative Training and Workforce Development at Rutgers University. Training Manual can be found at: <http://itwd.rutgers.edu/research/TrainingManual.pdf>

**The Quality Group (TQG)** helps clients implement advanced e-Learning to improve the bottom line.

If your charge is to deploy blended e-Learning for Process Improvement, we provide everything you need – content, testing, and class materials – at a quite affordable price. We also offer e-training in basic employability skills. All our content is powered by OpusWorks®, our elite e-Learning groupware authoring tool and delivery system. OpusWorks® gives control and flexibility for off-the-shelf, customized, and self-created e-courses. Ask AT&T, Bank of America, Seagate, or our many other corporate, academic, and partner clients. WinAt-Work® consists of four modules on fundamental "soft skills" – Interviewing, Good Work Habits, Getting Along, and Getting Ahead. WinAt's engaging and fun design features dozens of actors and hundreds of video scenarios requiring non-stop learner interaction. Learners can build self-esteem and take personal responsibility by making real-time decisions, getting feedback, taking quizzes, navigating simulations, and experiencing consequences. With WinAt, coaches, counselors, and supervisors see immediate attitudinal impact and improved job performance. Do you deliver contract training to business and industry? Join our Academic Partner Network. Are you a government entity that needs to digitize your body of knowledge into e-Learning? Let's talk. Do our products

complement your solution portfolio? Become a distributor. Are you an expert in your field? Terrific! Let's convert your content into great blended e-Learning, sell through your own OpusWorks® portal, and then resell through our other OpusWorks® portals. We believe in win-win collaboration, and we welcome strategic alliances.

<http://www.thequalitygroup.net/>

**The Verizon Literacy Program Self-Assessment Tool (VLP-SAT)**

This is an interactive and in-depth survey available free through Thinkfinity Literacy Network on Thinkfinity.org. This versatile tool provides standards, indicators and criteria for best practices for programs that serve students across the life span. The tool offers research-based strategies proven to bring about literacy outcomes for young children, elementary school-age children, adolescent students and adult learners.

<http://literacynetwork.verizon.org/Best-Practices.26.0.html>