TRENDS

September 26, 2006

Social Computing Reshapes eLearning

by Claire Schooley

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Social Computing Reshapes eLearning

Informal Learning Becomes A Component In Blending Learning And Work

by Claire Schooley
with Chris Charron, Erica Driver, Charlene Li, and Lucy Fossner

EXECUTIVE SUMMARY

Social Computing — a set of fast-growing peer-to-peer technologies like blogs, wikis, social networking, communities of practice, and podcasting — is beginning to have a powerful effect on corporate learning. Universities lead the way in incorporating Social Computing tools to enhance higher education instruction. But forward-looking businesses with wired employees — like IBM and Cisco Systems — are also piloting and implementing learning programs. While many point products exist today, look for Social Computing technology to become part of collaboration tools.

TABLE OF CONTENTS

NOTES & RESOURCES

Forrester interviewed five vendor and user companies: Altus Learning Systems, Cisco Systems, IBM, OutStart, and Tomoye.

Related Research Documents

"The Forrester Wave™: Blogging Platforms, Q2 2006"
June 27, 2006, Tech Choices

"Social Computing's Impact On Financial Services"
June 22, 2006, Trends

"Trends 2006: eLearning Goes Informal And Moves Closer To The Worker's Job"
April 19, 2006, Trends

"Social Computing"
February 13, 2006, Forrester Big Idea

TARGET AUDIENCE

Information management professional

CENTRALIZED LEARNING DOESN'T FLY TODAY

Centralized, classroom-based learning can no longer meet the needs of today's workers. While formal classroom instruction will still have its place for training requiring face-to-face interaction, workers will value the resources that give them the information they need when they need it. Dispersed staff, flexible work schedules, and the arrival of wired, self-driven Millennials into the workforce require a new approach.[1] Informal, peer-driven learning approaches are growing with communities of practice (CoP), knowledge management repositories, instant messaging, and Web2.0 tools for podcasts, wikis, and blogs (see Figure 1).

Figure 1 Informal Tools Used For Learning

Informal tool and description	Best use
Blog. An online personal commentary that is a form of Internet publishing and allows comments and reactions from readers.	Feedback on written documents or reactions to an idea from a broad audience with many different perspectives.
Podcast. Digital audio and/or video program that users subscribe to and download via RSS feed to digital devices like an iPod or a desktop computer.	Communication of information or single-concept learning that is short and concise.
Wiki. A Web page that allows asynchronous communication and group collaboration across the Internet. Anyone who is granted permission can view and modify the wiki.	A final product that develops through team writing and editing and reflects collective thinking of a group.
Community of practice (CoP). A group of people in an online group with a common interest who share knowledge and expertise.	Following a learning course, the participants form a CoP hosted by a leader to share material related to a shared experience or a course, get help on problems that arise, and share best practices.

40400 Source: Forrester Research, Inc.

These new techniques point to the future of eLearning, characterized by:

- **Short learning modules.** Employee focus is stronger and interest is higher if learning content comes in engaging, bite-size pieces. A good, short learning piece is well produced, with visuals, animation, or simulation, and focuses on a single concept, grabs learners' attention, presents straightforward content, gives examples, and assesses understanding — all in a few minutes. The content may simulate learning blogs with co-workers or link to a wiki associated with the learning module that allows users to comment on ways to add to or improve the learning experience.[2]

- **On-the-go access.** Employees want instant, anywhere access to information — afforded to them via MP3 players, PDAs, laptop computers, and 24-hour Internet access. Learning and information gathering are intertwined and contextual.[3] For example, a worker downloads the latest product sales information to his MP3 player and listens to the 10-minute podcast while traveling home on the train. He has also downloaded updated compliance training from the learning management system (LMS) course catalog, which he plans to take with him while flying to a customer event. His assessment results will be updated to the LMS when he syncs back up to the company network.

- **Self-service.** Today's workers need search tools that will help them identify and organize pieces of learning appropriate for their needs. Self-service allows a worker who has received short notice on leading a negotiation session to identify a short learning module on negotiations and add it to her "shopping cart," along with contact details for an expert on negotiations from a community of practice (CoP), some documents from a learning repository search, and a short video that demonstrates best practices and behaviors to avoid.

- **Informality.** More than 80% of adult learning takes place in informal settings outside the classroom, leaving only 20% for formal learning situations.[4] In spite of the disparity between informal and formal learning in the workplace, corporations invest most of their budgets in formal learning. With this reality, the chief learning officer (CLO) and the instructional staff must determine how to use informal, Social Computing approaches to benefit the organization. This includes examining their roles and the role of learning within the organization. It also means that workplace learning must move away from being "just like school" and become part of the workflow of the day.

- **Network support.** When knowledge is needed but not known, workers' ability to plug into resources to meet their needs becomes a vital learning skill. Increasingly, workers have personal knowledge and experiences that they share with their networks.[5] The knowledge from these networks helps other workers in their organization or institutions; this feeds back to the network and continues to provide learning to the workers.[6]

The Value Of Social Computing eLearning

Learning strategies that leverage Social Computing technologies are:

- **Cheaper.** Workers build the knowledge base themselves, depending on their individual needs. The same tools are used for very different learning content. Solutions may be integrated with existing collaboration suites. These informal tools for learning are free — open source — or cost a few dollars per user. They come as a hosted service and/or installed software. For example, a sales manager develops a training podcast to present critical product selling points that the salesperson must learn or review before meeting the customer. The podcasts are concise, have essential content, and are fast and inexpensive to produce. The sales force can access them from the company Web site, download them from a RSS feed, and access them via a desktop computer or a MP3 player.[7]

- **Richer.** Workers drive their own learning. They use Social Computing to build a wide knowledge base with resources that are specific to their needs. Social Computing is effective because it is personal. The individual calls the shots. The learner is responsible. It's real. For example, a training department uses a wiki to improve course content. After each module, participants react to the content, delivery format, etc., and suggest changes to existing content, additional material, resources, and other areas. Participants add to or challenge contributions of others. The result is an updated course of study.

- **Scalable.** Content can reach a very large audience. A company decides whether employees and/or customers have access to Social Computing sites. Social Computing builds, morphs, and takes the shape of what users need. For example, a CEO blogs about industry issues in an informal format and establishes dialogues with customers, employees, other CEOs, M.B.A. students, etc. Experiences become a joint learning and awareness experience over a very large geographical area.

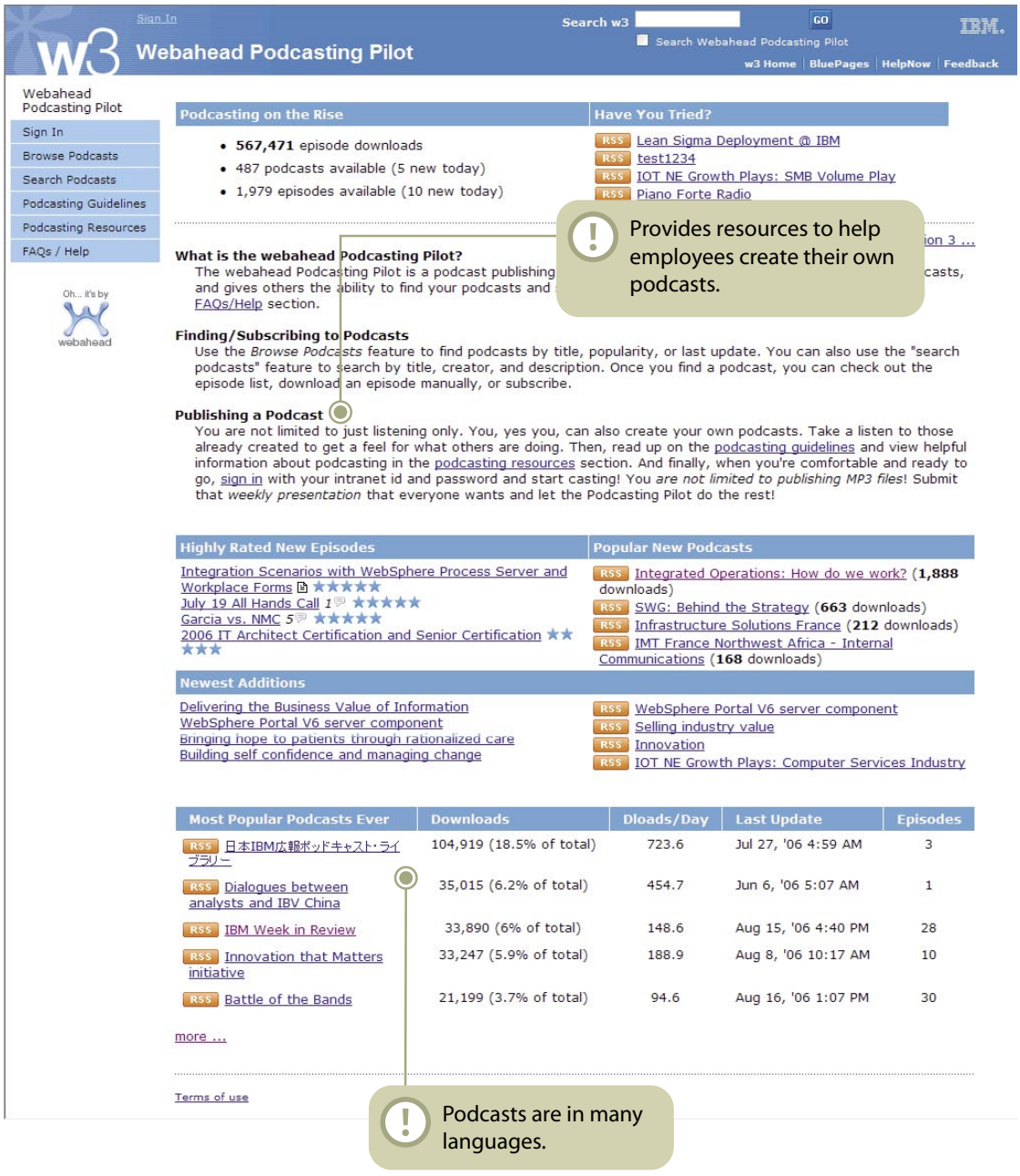
IMPLEMENTING A PEER-DRIVEN LEARNING STRATEGY

Many organizations are talking about the use of peer-to-peer learning through podcasts, wikis, blogs, and communities of practice, but few have taken the leap. Two technology companies have moved forward and are charting new territory: IBM and Cisco. Both have had group sharing activities for many years, and now, they are becoming more numerous and more multimedia-oriented.

IBM Provides A Centralized Content Platform

For the past two years, internal podcasts, blogs, and wikis have helped employees — 40% of whom are mobile workers — to share information and develop innovative ideas. IBM's podcasts and blogs connect employees and keep them up-to-date. Wikis allow a dispersed workforce to collaborate. IBM is one organization that uses internal podcasts (see Figure 2).

Figure 2 Example Of A Podcasting Home Page



40400 Source: Forrester Research, Inc.

- **Key best practices.** IBM strives to be invitational and yet structured in managing the platform by: 1) creating a set of guidelines for all user-generated content; 2) not requiring manager sign-off or billing back costs to departments required to participate; and 3) not allowing anonymous postings.

- **Technologies.** IBM is working toward a more seamless integration with multimedia, including video. At present, it uses Atlassian as a third-party vendor for wikis, the Roller open source project for blogs, and a custom application for podcasts.

- **Metrics of success.** With: 1) a total of 23,000 blogging employees; 2) 527,000 downloaded podcast episodes; and 3) 473 different podcasts using browsing and social tagging, IBM keeps a running tally on metrics and presents dynamic data on the podcasting home page.

Cisco's Podcast Initiative Gives Users Flexibility

Cisco's worldwide, 10-year-old Systems Engineer Virtual Team (SEVT) program has exposed the engineering community to new products, solutions, marketplace changes, and competitive positioning. Now, a podcasting pilot program captures content in MP3 or MP4 format and delivers it via RSS feed (see Figure 3).

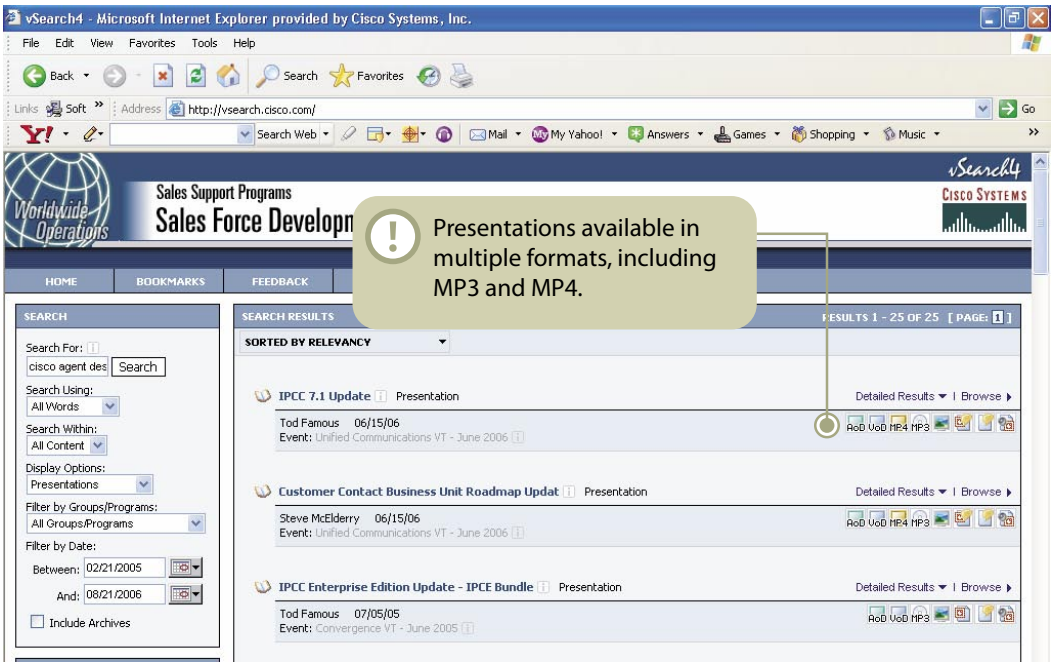
- **Key best practices.** Cisco has found success in: 1) offering VSearch, an audio and text word search, to increase usability of the tool; 2) offering podcasts through RSS feeds to allow mobile workers to receive immediate updates while on the move; and 3) embedding speaker transcripts in PowerPoint presentations to allow users to devote their full attention to the MP4 presenter.

- **Technologies.** Third-party vendor Altus Learning Systems records podcasts and provides VSearch capability. Wiki technology is under evaluation as another tool to promote group learning and strengthen the "community of interest" aspects of the SEVT program.

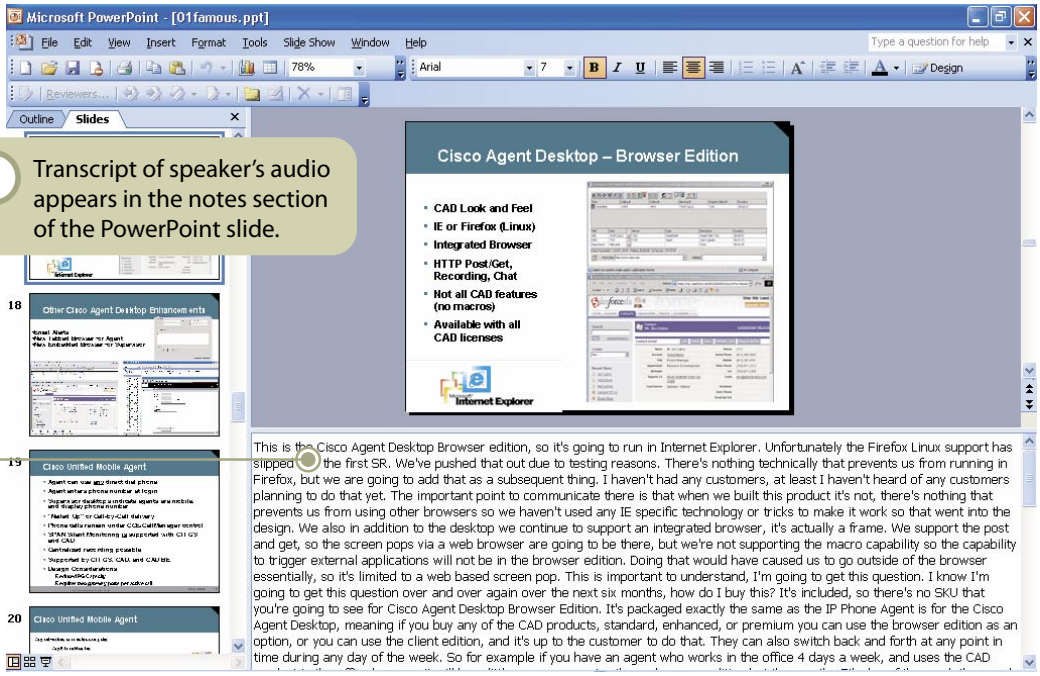
- **Metrics of success.** Downloads have increased 1,998% with these informal learning methods. The podcasting pilot with VSearch has had 1,000 MP4 downloads within four weeks of the content being posted.

Figure 3 Podcasts For Sales Support Employees

3-1 Word search for presentations



3-2 Speaker transcripts



40400 Source: Forrester Research, Inc.

PEER-TO-PEER eLEARNING TOOLS COME IN FOUR FLAVORS

Vendors fall into three categories: content and collaboration, point products, and off-the-shelf content providers (see Figure 4).

- **Content and collaboration vendors offer fast content development.** Tools like Altus Learning Systems and Tomoye increase workers' productivity because they can find content and information when they need it and locate an expert quickly. Workers must be familiar with these resources and know how to use them effectively. A collaborative and interactive culture supported by management is critical for success. Without it, the well-designed products will sit unused.

- **Informal point products offer low cost and innovation.** Tools like Traction Software and TWiki provide low-cost and often free (open source) tools for blogs and wikis. Some are enterprise-ready, and others cater to small organizations and consumers. But as collaboration vendors see these learning tools grow, they will provide the tools within their platforms — as they now do with instant messaging.

- **Off-the-shelf content vendors can give efforts critical mass.** Vendors like SkillSoft and Global Knowledge, which have traditional eLearning courses, package content as podcasts. Most resources are free, encourage information exchange, and are accessible from the vendors' home pages. These vendors see the numbers and realize there is a market. An estimated 22 million American adults currently own iPods or MP3 players, and 6 million (29%) of them already actively download podcasts.[8]

Figure 4 Vendor Descriptions Vendor Descriptions

Content and collaboration vendors

Altus Learning Systems (www.altuscorp.com). Creation tool for on-demand interactive communications and presentations. Users use VSearch to find specific content synchronized with an onscreen or printable transcript.

OutStart (www.outstart.com). The Participate product provides knowledge sharing and communication across the enterprise, a knowledge bank to find answers with flexible search and retrieval methods, and real-time access to experts and discussion communities.

Q2Learning (www.q2learning.com). The xPert Community product allows the development of communities of practice with breakout rooms and private coaching rooms built on a collaboration platform.

Tomoye (www.tomoye.com). Software to create an ongoing peer network to connect and transfer ideas and approaches across the enterprise. Tomoye focuses exclusively on communities of practice.

Informal point-product vendors

Wikis

- **Socialtext (www.socialtext.com).** Enterprise-strength wiki with hosted and installed software.
- **JotSpot (www.jotspot.com).** Installed or hosted wiki software for professional users. The wiki application gallery has blogs and discussion forums.
- **TWiki (www.twiki.org).** Open source software that combines a wiki and a database application. Appropriate for medium-size and large organizations.
- **MediaWiki (www.mediawiki.org).** Open Source software package that Wikipedia is built on. Designed for a large number of users, and workflow is relatively open.
- **Atlassian Software Systems (www.atlassian.com).** Confluence is installed software for enterprises but also smaller companies. Supports multiple linked wikis and blogs.

Blogs

- **Google Blogger (www.blogger.com).** Easy-to-use, free blogging service.
- **iUpload (www.iupload.com).** Strong and easy-to-use hosted service that is good for internal and external blogging.
- **Traction Software (www.tractionsoftware.com).** TeamPage is suited for large companies and is good for internal enterprise use with management of multiple blogs.
- **Six Apart (www.sixapart.com).** Movable Type integrates content management functionality with high ease of use for external and internal blogs.
- **WordPress (www.wordpress.com).** Open source solution that, through plug-ins, is customizable to extensions beyond blogging.

Off-the-shelf content vendors

NETg (www.netg.com). Ten- to 20-minute podcast interviews discussing online learning and knowledge management educational issues.

SkillSoft (www.skillsoft.com). Executive management ad marketing podcasts that use excerpts from Exec Blueprints with information and perspectives on trends in IT, business, engineering, finance, and government.

Global Knowledge (www.globalknowledge.com). Each podcast is a 5- to 6-minute mini-lesson from Global Knowledge courses or Web seminars. Topics include updates on certifications and discussions of industry topics and trends.

40400 Source: Forrester Research, Inc.

RECOMMENDATIONS

ADD EMPLOYEE NETWORKING TOOLS SELECTIVELY

Learning and HR departments will find it difficult to keep up with these distributed technologies. Updating their own skills in using Social Computing technologies will be essential. Rather than controlling their use, training departments should encourage lines of business (LOBs) to manage their own uses of Social Computing technologies. Some suggestions for training departments:

- **Start slowly.** An informal approach to eLearning will fail if the target user base does not know enough about emerging technologies. Organizations contemplating using informal learning tools need to start slowly, identify the need, examine the appropriate tools, and then start with a small, enthusiastic group as an experimental pilot. Training the pilot participants on how to use — and more importantly, how to get value out of — the new technologies is a critical success factor.
- **Target your most wired workers.** The best candidates for informal programs are organizations that have a technology-savvy, wired workforce that uses technology extensively on a daily basis. In solving daily problems, these workers turn to the computer first to find the information or people they need. Types of organizations that tend to fit this pattern include technology vendors, engineering firms, digital marketing agencies, and workers in information-intensive environments who need to find information quickly.
- **Choose a problem first and a tool second.** Look for tools that solve the specific eLearning problem first before looking at specific tools (e.g., wiki, discussion thread, blog, shared bookmarks). When using wiki tools, look for tools that provide a WYSIWYG experience for end users. Some organizations start with podcasts delivered to the desktop via a RSS feed because MP3 devices are common consumer products and employees are very mobile today.
- **Provide LOB employee training.** Virtual (online) classroom sessions and informal affinity groups can provide information on how to access informal learning sites, as well as how to receive the most benefit from the podcast, blog, and wiki communication and learning tools. With IT's help, develop practice sites for employees who have not used this technology. Provide employees with training sessions on how to conduct their own engaging podcast interviews.
- **Develop evaluation tools.** Assessment tools are critical in determining the use and value of informal learning and in making employees more effective and successful in their jobs. Keep records of activity in blog entries, wiki activity, and podcast downloads. Develop an online questionnaire and email it to users every two to three months when starting out and twice a year once informal tools are working well. Provide an online blog or wiki where users can share reactions to informal learning sites and give suggestions.

SUPPLEMENTAL MATERIAL

Companies Interviewed For This Document

Altus Learning Systems

Cisco Systems

IBM

OutStart

Tomoye

ENDNOTES

[1] The professional workforce is dramatically changing as a new generation of younger, college-educated workers launch their careers. The Millennials— those born between 1980 and 2000 — have an innate ability to use technology, are comfortable multitasking while using a diverse range of digital media, and literally demand interactivity as they construct knowledge. See the September 30, 2005, Trends "Get Ready: The Millennials Are Coming!"

[2] For example, a restaurant chain changed its onboarding experience for new workers from two days of onsite training to one half-day onsite, plus online, short, single-concept modules that communicated additional learning. New employees learned material equally as well as older employees and were able to come back and review segments they didn't fully grasp.

[3] The convergence of learning and work launches a new era for supporting the needs of workers to learn while they work. See the March, 24, 2006, Trends "Contextual Learning Boosts Performance."

[4] Source: "Informal Learning — the other 80%" (http://www.internettime.com/Learning/The%20Other%2080%25.htm#_Toc40161517).

[5] LinkedIn is an example of a network that captures people's business and social contacts online for purposes of employment and information. See http://www.linkedin.com.

[6] Source: George Siemens, "Connectivism: A Learning Theory For The Digital Age," *elarnspace,* December 12, 2004 (http://www.elearnspace.org/Articles/connectivism.htm).

[7] For more information, see Podcasting for Learning (http://www.ottergroup.com/blog/_archives/2005/9/16/1232728.html).

[8] Source: Pew Internet and American Life Project Data Memo (http://www.pewinternet.org/pdfs/PIP_podcasting.pdf).

FORRESTER®

Helping Business Thrive On Technology Change

Headquarters

Forrester Research, Inc.
400 Technology Square
Cambridge, MA 02139 USA
Tel: +1 617/613-6000
Fax: +1 617/613-5000
Email: forrester@forrester.com
Nasdaq symbol: FORR
www.forrester.com

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