Institutions of higher education are increasingly embracing online education (Allen & Seaman, 2003), and the number of students enrolled in distance programs are on the rapid rise (National Center for Education Statistics, 2003). E-learning has gained popularity in workplace learning settings as well (Galvin, 2003). Still, myths abound about the difficulty of teaching online, the available technologies, the support and compensation needed for high quality instructors, and the needs of students. Adding to this turbulence, bored online learners are pleading with the rest of us for more rich and engaging online experiences. As these three storms collide, they create the perfect storm linking pedagogy, technology, and learner needs. To navigate the upcoming monsoon of e-learning, an understanding of the current state and the future direction of e-learning is warranted. In response, large surveys were conducted in both higher education and corporate training to explore the future plans and trends of online teaching and learning. The results of these two studies are presented here.

Background of the Study

Participants

The first set of online survey data was conducted to explore the current status and future directions of e-learning in higher education settings. An online survey was conducted of college instructors who are members of MERLOT, a higher education association of more than 14,000 college professors, instructional designers, and administrators who share and peer evaluate their Web resources and materials. Also surveyed were approximately 2,000 members of the World Lecture Hall (WLH) and 500 to 600 members of the Western Cooperative for Educational Telecommunications (WCET). While the WLH was developed by the University of Texas for faculty to share college syllabi, WCET is a leading organization that provides resources and information regarding the effective use of telecommunications technology in learning. The first author had previously surveyed MERLOT and WLH members on the state of online learning (Bonk, 2001). This follow-up survey took place in SurveyShare, a Web-based survey tool, from late November 2003 to early January 2004.

The second survey was conducted to explore the current status and future directions of e-learning in workplace learning settings. Here, an online survey was conducted of people training professionals (e.g., chief learning officers, training managers, trainers/instructors, e-learning developers) in various types of organizations, including government, business, and not-for-profit organizations. This 49 item survey was sent to a list of individuals who were part of an e-learning conference distribution list in January 2004.

Instruments and Data Collection

The online survey for educators in higher education consisted of 42 questions related to the future of online learning in higher education. Questions asked included respondents’ demographic data, the current
state of e-learning in their organizations, and their predictions of the future of online teaching and learning. Out of more than 12,000 survey requests, there were 562 completed surveys.

The online survey for training professionals consisted of 49 questions related to the current status and future directions of e-learning in workplace learning settings. Of more than 20,000 requests, 239 completed surveys were returned. Of the returned surveys, 67% were from males who were mostly employed in small-to-medium-sized organizations. More specifically, 62% of the respondents worked in organizations with less than 5,000 employees. In terms of the respondent’s job function, about 20% of them were executives (e.g., CEO, chief technology officer, or president) and about 22% of them were at the management level (e.g., e-learning manager, HR manager, training manager). In addition, 15% of the respondents were instructional designers, performance technologists, or trainers/instructors.

Results

Findings From the Survey of Higher Education Settings

Demographics of online instructors. Most of the respondents were professors and instructors or lecturers, though nearly one-fourth were administrators or instructional designers. Approximately half of respondents were employed in public 4-year colleges or universities, 23% in community colleges or vocational institutes, and 16% in private post-secondary institutions. A large majority (87%) of those respondents noted that their organizations were offering online courses. About 70% of respondents had experience in online teaching, though this varied from 1-2 years to more than 10 years of experience.

Females online. The results of this survey show that women appear to be teaching online in far greater numbers than just a few years ago. In fact, in the higher education study, most of the respondents (53%) were females. The results were surprising to the investigators because two years ago (Bonk, 2001), a similar survey was dominated by male instructors who were full professors at tier one universities. Perhaps female instructors are now more comfortable teaching and sharing activities online.

Future growth of online education and blended learning. Most of the respondents expect huge growth in online certification and recertification programs as well as associate degrees during the coming decade, not necessarily an explosion of online master's or doctoral programs. About a half of the respondents predicted that monetary support and pedagogical competency of online instructors would most significantly affect the success of their online programs. The technical competency of instructors was the third most pressing factor though pedagogical concerns overshadowed technological ones.

In comparing between face-to-face and online instruction, respondents predicted that emphasis will be placed more on blended learning, combining face-to-face with online offerings, than on fully online courses. According to these early Web adopters, there will be a distinct shift from about a quarter of classes being blended today to perhaps the vast majority of courses having some Web component by the end of the decade. To deal with this shift, more than half of the respondents predicted that the typical online instructors by the year 2010 would have extensive internal training within his or her organization.

Quality of future online education. The quality of online education has been a concern by many researchers and educators (Allen & Seaman, 2003). Will this trend change in the future? Most of the respondents expect that the quality of online courses is likely to be identical to traditional instruction by year 2006 and to be superior to traditional instruction by 2010. Similarly, they predicted that learning outcomes of online students would be superior to those of traditionally taught students by 2010. In regard to areas to focus on for improving online learner success, those surveyed responded that training students to self-regulate their learning was needed most, followed by orientation sessions and tutorials.
Future e-learning technologies. Technology has played an important role in the development and expansion of online teaching and learning. Respondents noted that course management systems, video streaming, digital libraries, and learning object libraries were most likely to impact the delivery of online learning in the next five years. They also predicted that advancements in the Internet technology (e.g., greatly extended bandwidth, wireless Internet connections, etc.) would likely increase the use of multimedia and interactive simulations and games in online learning during the next 5 to 10 years.

Online pedagogy and teaching skills. Unlike the earlier study of the state of online learning in 2001 which included many questions about online learning tools and features, this study was more focused on learning outcomes and pedagogical skill. For instance, this study found that the most important skills of an online instructor in the next few years will be how to moderate or facilitate learning and how to develop high quality online courses. Being a subject matter expert was the next most important skill. Online collaboration, case learning, and problem-based learning were the preferred instructional methods of the online instructor, with few simply relying on lectures, modeling, or Socratic instruction. Interestingly, most respondents saw the potential of the Web in the coming years as a tool for virtual teaming or collaboration, critical thinking, and enhanced student engagement, instead of as an opportunity for student idea generation and expression of creativity. Given these findings, one cannot ignore the vast pedagogical possibilities that the Web offers.

Findings From the Survey of Workplace Learning Settings

Respondents’ attitudes toward e-learning. A large majority of respondents from workplace learning settings showed extremely positive attitudes toward e-learning. About 90% of the respondents described themselves as being supportive or optimistic about e-learning. Also, they currently embraced e-learning or blended learning to a varying degree. Over 80% of those surveyed responded that they were using e-learning or blended learning to train their employees. Interestingly, there were additional indicators that the respondent organizations were making investments in e-learning. For instance, a majority of the respondents said that their organization spent between 1 and 60 percent of total training budget in e-learning in 2003. Sixty percent of those surveyed, moreover, responded that their organization had a strategic plan for e-learning. When projecting the impact of e-learning by the year 2025, a majority of the respondents predicted that e-learning would have a positive impact on learners in many ways.

Future growth of online and blended learning. An earlier survey on workplace learning by the first author in 2002 (Bonk, 2002) found that most respondent organizations still relied on conventional instructor-led training. Will this trend continue in the future? In terms of the growth of e-learning in workplace learning, 25% of the respondents this survey indicated that e-learning was already the dominant form of training in their organization in 2004, while another 50% predicted that e-learning would become the dominant form of training in their organization by 2010. Additionally, the respondents predicted that their organization would focus most on creation and delivery of e-learning content as well as the evaluation of e-learning outcomes in the next few years.

When asked about the use of blended learning to deliver training, a majority of respondents (77%) answered that 1-40% of employee training in their organization were blended in 2004. In particular, over 80% of the respondents predicted that blended learning would become the most prominent delivery method in training settings in the next few years, followed by self-paced e-learning, instructor-led classroom learning, and multimedia.

Future of online trainers/instructors. The respondents of this survey predicted that course designers/developers would grow the most among e-learning job areas during the coming decades, followed by online mentor/coach, e-learning manager/director, and e-learning trainer/instructor. Also, more than half of the respondents predicted that the typical online trainer/instructor would have extensive
internal or external training to teach online. In terms of skills required by online trainees, a majority of respondents predicted that online facilitating or moderating would be the most vital skill for online instructors/trainers by 2010, followed by online mentoring, lecturing, and evaluating or assessing skills.

**Quality of future e-learning.** In order for e-learning to thrive, there is a need for online learning environments that build success for learners (Hofmann, 2003). However, 70% of those surveyed responded that online courses were not as engaging or motivating as face-to-face courses. Similarly, almost 20% of the respondents said that boring and low quality content was the most significant e-learning issue that must be addressed during the next few years. These findings illustrate the needs for the design of more engaging e-learning to create a more successful learning environment for online learners. With regard to areas to focus on to improve online learner success, those surveyed thought that online learners’ achievement and satisfaction needed to be evaluated better, followed by clearer reward systems and incentives for e-learning completion, and training that helps learners self-regulate their learning.

**Future e-learning technologies and pedagogy.** The respondents predicted that knowledge management tools, online simulations, and reusable content objects would impact the delivery of e-learning most greatly during the next few years. They also predicted that interactive simulations would increase the most in use during the coming decade due to advances in Internet technologies, followed by multimedia presentations, authentic learning experiences, and global collaboration and perspective sharing. When asked about instructional approaches or strategies for e-learning in training settings, the respondents answered that authentic cases and scenario learning, problem-based learning, coaching/mentoring, and guided learning would be used more widely during the coming decades.

**Conclusion / Discussion**

As institutions of higher education begin to embrace as well as debate online learning, it is important to envision where the field is headed. Many scholars and instructors are advocating for next generation course management tools that move from warehousing students in online environments to engaging them in interactive and motivational activities. The current studies provide a glimpse of the pedagogical as well as technological possibilities. It seems likely that collaboration, case learning, and problem-based learning will be the preferred methods of the online instructor, with few relying solely on lectures, modeling, or Socratic instruction. In addition, organizations are finally focusing on how online learning can develop student collaboration and evaluation skills. In fact, most now see the potential of the Web in the coming years as a tool for virtual teaming or collaboration, critical thinking, and enhanced student engagement, not as a tool for creative expression. Perhaps the recent announcements of open source courseware will force course management vendors to develop more pedagogically engaging tools and resources.

The higher education survey indicates that there will be enormous growth in online certification and recertification programs, associate and master’s degrees, and blended learning. Both surveys revealed an interest in wireless technologies, simulations, digital libraries, and reusable content objects. Perhaps we are entering a world where learning objects will be at our fingertips. It is likely that learning objects on different topics will be something you can grab like magazines and newspapers on the way into a plane, bus, or train. In addition, as bandwidth increases with Internet II technologies and capabilities, there will be more realism and authenticity in the types of simulation and gaming tasks online students engage in. The data collected here also indicate that the explosion in online learning will bring increased attention to workshops, courses, and degree programs in how to moderate or mentor within online learning. Clearly, we are entering a simultaneously unique and exciting era in online teaching and learning.
References


Biographical Sketches

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