

Running Head: THE FIELD OF INSTRUCTIONAL TECHNOLOGY

Future Trends and New Directions

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Abstract

Technology is a constantly changing field with a flourishing future. This paper will begin by discussing six future trends and the implications for education. It will also discuss three emerging learning environments and the benefits for students. In addition, it will highlight e-folios and its benefits for professionals and students. The paper will be concluded with a discussion of the University of Houston Clear Lake instructional technology program electives with possible innovative changes.

Future Trends

Technology continues to play an important role in modern industrial society; therefore integrating technology into the schools will help prepare students to succeed in a rapidly changing world (NCREL, 1995). The face of technology is constantly changing with vast ideas and emerging tools. The future of technology will enable people to be life-long learners (Thornburg, 1999). There are several technology trends that have impacted society. However, the six trends that will be discussed include wikis, blogs, podcasting, mobile & handheld educational gaming products, file/media sharing and wireless connectivity.

E-learning is “the delivery of a learning, training or education program by electronic means” (Stockley 2003). E-learning when used properly can be an effective tool for organizations wishing to develop staff or provide training in new products and processes. Distance education provided the base for e-learning's development. E-learning can be on demand and it assists with timing, attendance and travel difficulties. The traditional approach to e-learning has been to employ the use of a virtual learning environment, however software is often expensive and which tends to be structured around courses, timetables, and testing (O’ Hare, 2006). In contrast, there are complimentary tools that can be used such as weblogs/blogs, wikis, podcasts, and file/media sharing.

Blogging is increasingly finding a home in education (O’Hare, 2006). A weblog is essentially a web page ‘logging’ hyperlinks to websites which a websurfer finds interesting. The term weblog was later truncated to “Blog”

(Huann, T, John, O, & Yuen, J, 2007). Blogs are like a journal and can be used in the classroom to encourage students to write. Blogs facilitate critical feedback, by allowing readers add comments which could be from teachers, peers or a wider audience (Blogs, 2007). Blogging can be used to positively enhance teaching and learning in an English language arts class. "The integration of blogs into English classes in secondary schools and stated that 'web publication gives students a real audience to write to and, when optimized, a collaborative environment where they can give and receive feedback, mirroring the way professional writers use a workshop environment to hone their craft'" (Huann, 2007). Blogging is relatively new, however in my opinion blogging will continue to expand and make strides in the future trends for technology.

Podcasting is quickly becoming a popular activity for individuals who are tech savvy. "A podcast is a digital media file, or a related collection of such files, which is distributed over the Internet using syndication feeds for playback on portable media players and personal computers" (Podcast, 2007). Similar to broadcast radio, this technology has rapidly gained the interest of professional broadcasters and educators. In the field of education, podcasting is a fast, convenient, and low cost way to extend lessons beyond the classroom. While podcasting cannot be a complete replacement for face to face education, the potential uses of podcasting in traditional and distance education include the ability to listen to a lecture multiple times, flexibility in class schedule (no more "missed classes"), increased interaction with the instructor (instead of focused note taking), supplement to traditional class notes, audio resources for blind and

distance education students, portability (using personal media players), benefits to auditory learners, and multitasking (e.g. exercising while listening to lectures). (Pederson, 2005). Podcasting can be very beneficial to many organizations in the corporate world as well as in education. With the popularity of podcasts, in my opinion it will continue to improve and be a huge interest in society.

Wikis provide unique collaborative opportunities for education and are rapidly being adopted as an innovative way of constructing knowledge. (Arreguin, 2004) Wikis tend to be developed around specific subject interests and combine freely accessible information, rapid feedback, simplified HTML, and access by multiple editors. "Educators and students, as well as amateurs and professionals (artists, writers, collectors), have found wikis useful in expanding community involvement and interest in their subjects and activities" (Educause Learning, July 2005). Wikis are a constructivist learning activity that allows students to "own" their learning experience in an online collaborative environment. (Arreguin, 2004) Wikis enabled projects can provide various levels of site access and control to team members, offering a fine-tuning element that enhances the teaching and learning experience.

According to Ambient Insight, educational gaming is currently being dominated by preK-12 schools and institutions of higher education, but gaining ground in the corporate world as well in the United States (Nagel, 2001). The five primary educational gaming areas that are expected to expand are knowledge base, skilled base, brain trainers and cognitive remediation, role-playing and simulation, and language learning games. Less than two years ago the demand

for mobile educational games was highly localized to an early childhood education niche in the consumer and PreK-3 buyer segments. The market has changed and the highest growth rates are occurring in the higher education segment followed by state and local public libraries. The market for mobile educational gaming will more than triple by the year 2012.

Wireless connectivity is a universal trend across computers that are simplifying computer networks by reducing the number of required cables and allowing greater freedom of movement. (Roblyer,2006) Educational institutions are faced with multiple challenges when it comes to providing the modern networking capabilities demanded by today's applications. Wireless connectivity would allow teachers and students to use portable computers and connect anywhere in the building. According to Roblyer, wireless connectivity is promised to have a more direct impact on teaching and learning activities (2006, p.25).

Emerging Learning Environments

There are several forms of learning environments. The emerging learning environments that will be discussed are face to face, web based and hybrid courses. All learning environments must engage students and relate to real world applications.

The first form of emerging learning environments is face to face learning which is the traditional instructional method used by educators. The behavioral learning theory aligns with a face to face learning environment. "Direct teaching strategies dominate, based on the belief that student behavior can be measured,

diagnosed and predicted. The aim in the classroom is to calibrate behavior to achieve set learning objectives” (Hand-out 1, 2007). When in a face to face learning environment, the teacher must use strategies to engage learners and make learning fun.

The next form of emerging learning environments is web-based courses that require an array of online and offline tools. Web based courses are managed by course management systems such as WebCT and Blackboard (Roblyer, 2007). These delivery systems allow for real time, and asynchronous interaction among participants and instructor without the need for physical proximity. Web based courses allow students the flexibility to conduct all activities through a course management system. In order for web based courses to be effective, they must yield four common characteristics which include effective course structure and design, engaging learning activities, interactive learning communities and effective assessment strategies.

In addition, hybrid courses are also a form of emerging learning environments. In "hybrid" classes, a significant amount of the course learning activity has been moved online, making it possible to reduce the amount of time spent in the classroom. Traditional face-to-face instruction is reduced but not eliminated and the model is referred to as "blended (University of Wisconsin, 2007). This allows the student much more flexible scheduling, while maintaining the face-to-face contact with the instructor that is typical of traditional education.

Distance education is in a constant state of change as new technologies avail themselves to the field and old technologies mature. No one is sure what the future holds for distance education. Its future will depend on the development of new media, new methodologies for learning and information gathering, and the development of government telecommunications policies. (Zani, 2007)

E-Folios and INST electives

E-Folios are marketing tools that display an individual's achievements and accomplishments. E-Folios are today's technology which is an electronic collection of work over time that showcases the individual's skills and how they have progressed (Roblyer, 2007). With an electronic portfolio, information can be easily stored in a computer hard drive, CD or flash drive. The students' work is organized and the electronic portfolios can be enhanced by sound, music, pictures, graphics and even video. Electronic portfolios also serve to enhance computer and technology skills. The teacher and student would gain experience by creating, selecting, organizing, editing and evaluating the portfolios. Students would feel a sense of accomplishment and empowerment by displaying, sharing and presenting their electronic portfolios to teachers, fellow classmates and parents.

The Instructional Technology program at the University of Houston Clear Lake embraces the use of e-folios. The e-folios that students develop while in the instructional technology program are an excellent tool to use when pursuing a career in the field. The University of Houston offers many electives which utilize the use of e-folios. I plan to enroll in electives that will enhance my skills in

training and development. Digital Resources is one of my personal choices because you actually create instructional products which will be an asset in my future career. I would like the University of Houston Clear Lake to offer a hybrid class on creating and implementing professional development online. In addition, I would like to have the option of enrolling in a face to face class that teaches how to successfully create a web page using dream weaver or front page incorporating music, videos, and other multimedia features. I would like to see the class as hands on which guides students step by step each week on setting up their web pages. In addition, I would like to see podcasting integrated into the curriculum.

In conclusion, as technology and instructional design continue to advance, there will be more improved and innovative techniques that will allow the field of instructional technology and design flourish. As educators and trainers we must remain abreast with the current and changing trends and issues in instructional technology and design. I look forward to learning more about the field of instructional technology as well as applying what I have learned to my future career in training and staff development.

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