

EVALUATING THE DIRECTION OF RESEARCH IN ONLINE EDUCATION: ARE WE GOING ANYWHERE?

J. Alexander Smith
St. Louis University
smith82@slu.edu

ABSTRACT

In 2004, ABSEL created a new research track to examine online education. This paper explores the current direction of this research and proposes the need to move beyond the idea of the Internet as a facilitator of learning and towards that of being an enabler of additional learning.

INTRODUCTION

The growing acceptance of the Internet has created increased demand for online education. This demand is reflected in the growing acceptance and incorporation of new technologies in the teaching environment. At the annual conference for ABSEL, papers have been regularly submitted showing how to use the Internet for instruction, how to evaluate this Internet instruction, and how to adopt various teaching methods to the online environment. All of these papers focus on how the technology facilitates the already existing teaching methods.

Some research has been done to evaluate how online learning compares to its more traditional teaching counterparts. Few have explored the added benefits inherent in teaching or new methodologies created by using the Internet for instruction. This paper evaluates this lack of research into the added benefits of online learning, and proposes the need to move beyond the idea of the Internet as a facilitator of learning and towards that of being an enabler of additional learning.

INTERNET: HISTORY AND RESEARCH

The idea of computer aided teaching is not new. The first ABSEL (Association for Business Simulation and Experiential Learning) conference had articles on the use of computers in teaching where Barton (1974) wrote about a computer aided simulation. Over the years the use of the computer has changed from the mainframe, centrally located computers, to the PC that is available on everyone's desktop. ABSEL research has followed this change by examining how to adapt simulation and experiential learning techniques to the changing technology. Now it is facing another change in computer aided teaching, the Internet.

The Internet itself is not new but it has only been relatively accessible to the general public since the early 1990's. Yet the widespread adoption of the Internet has been staggering. In less than 20 years, the Internet has gone from obscurity to mainstream. Again, ABSEL has accepted

this changing nature of technology and incorporated it into its research.

But unlike previous technological changes for the computer, this new technology has created a push for further investigation into its teaching capabilities. A direct result of this is the adoption in 2004, by ABSEL, of a third research track devoted to online learning. By creating this research track, ABSEL has set online education apart from previous incarnations of computer aided learning. But how is it different and what does it have to offer?

To examine this idea, let us first look at the Internet in a little more detail. According to dictionary.com, the Internet is, "an interconnected system of networks that connects computers around the world...." This interconnectivity allows any computer to connect, indirectly, to any other computer in the world. This has huge possibilities for communication and knowledge dissemination. If we add learning to the Internet, we create a system that allows class information and instruction to be viewed anywhere in the world. No longer are students required to sit in a classroom at a specific time and place to learn.

Yet this disjointed instruction is not a new idea. Distance learning courses have been around for years. Correspondence courses were often relegated to the lower echelon of education, but it was possible for a student to take a class via the mail, thus providing for instruction regardless of place or time. In this manner, online education can be viewed as simply an extension of the correspondence courses of old, and is thus simply a tool to further facilitate distance education. Online universities such as the University of Phoenix are based on this model. These online universities overcome the time lag that is inherent in traditional correspondence courses. Where assignments and feedback took weeks to months, the Internet provides the possibility of instantaneous communication. Thus reducing the time it takes to earn a degree.

What then does online learning have to offer beyond facilitating already existing models of instruction? Limited research has addressed this question. Much of the research being done has addressed the facilitation of current methods. It examined how to use a website to integrate course delivery (Hornyak et al., 2001) and has shown how to receive e-mail attachments to enhance classroom instruction (Cabaniss and Portis, 2004). It has also discussed how to integrate the Web with the lecture (Pillutla, 2000). There are articles showing how to adapt current simulation to an online environment (Palia, Keong, and Roussos, 2000), as well as exploring new online simulations (Lai and Siau,

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2003). At the 2004 ABSEL conference, this focus on facilitation was highlighted when the best paper award for the online track was given to a paper that discussed the design and conversion of a simulation to online use (Shami et al., 2004).

This is not to say that all research has been limited to the process of facilitation. Of specific note, previous research has shown that there is little difference between test scores for online and traditional tests (Arbaugh, 2000). Though some research has shown that hybrid courses that integrated both online and traditional teaching methods showed an increase in student performance as compared to those students that received only the traditional teaching (Thoennessen et al. 1999). Gosen (2003) did a review that touched on various related studies for online learning. In summarizing his review he states, "The research available dealing with online education yields few conclusions, and many of the ... studies are methodologically flawed."

The question is not if the web is a promising medium for education. The real question should be related to how the Internet changes our view of the teaching-learning environment. If we were to apply Kuhn's (1960) theory of a paradigm shift, it is not too difficult to view the Internet as an anomaly that is not readily explained by current research. This anomaly should lead us to view teaching in a new way that will eventually lead to a new model for instruction. And yet much of the focus of research directed toward online instruction is lacking in this regard. Perhaps the Internet doesn't have anything new to offer the instructor or maybe we're not asking the right questions.

So what questions should be asked? In 1995 Davies gave an address to the semiannual meeting of Educom National Learning Infrastructure Initiative where he suggested three questions that should be applied to new technology in relation to teaching. They are:

- (1) Does it make learning more accessible?
- (2) Does it promote improved learning?
- (3) Does it accomplish the above while containing, if not reducing, the per unit cost of education?

Without reducing the importance of the first and third question, we are most concerned with the second question. How does the Internet improve learning? This is where the research literature is curiously silent. Yet this is not a new question. Windschitl (1998) and Owston (1997) each address this lack of research. Windschitl speaks directly when saying,

"Unfortunately, much of the literature stops short of asking critical questions such as, 'Are these

practices helping students, and, if so, how?' or, 'Is the introduction of this technology changing pedagogy?'"

Mergendoller (1996) expressed a similar question when he suggested the need to understand better, "...the relationship between technology, pedagogy, project oriented curricula, and student learning". Curiously though, there is still little in terms of new thought in this direction.

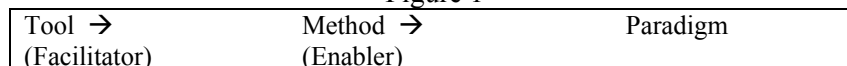
INTERNET: TOOL OR METHOD?

We have established that the Internet can facilitate teaching. Basically it is a tool that can be used to make life easier for the student, instructor or both. But how do we make the leap from tool to method? According to Solomon, et al., (1991), the real test is to determine if there is some level of learning or skill that is no longer present or acquirable when the tool is removed but is transferable to other situations. We could also ask if there is some benefit to using the Internet for learning that we would not be able to get through any other process.

In order to separate the tool from the method, we need to understand the characteristics of the Internet that relate to instruction. To date, this has been done on a limited basis. Studies have reviewed how students learn in a computer based environment (Park and Hannafin, 1993). But one of the largest problems with this type of study is the inherent nature of the Internet to be an extension of already existing software capabilities (Windschitl, 1998). He continues to suggest that due to this problem, "...more fertile ground may be found in examining entire web-supported pedagogical approaches to teaching and learning".

Recently, separation from a tool to a method was achieved in marketing thought. Sharma and Sheth (2004) show how business use of the Internet in marketing has changed. At first the Internet was simply used as a tool to facilitate already existing marketing theory. Long standing, traditional businesses actually fought the use of this new technology. After the initial shakeup of Internet businesses, affectionately dubbed the 'Dot-Bust', businesses started to explore the ability of the Internet to enhance business practices. To explore this phenomenon, Sharma and Sheth (2004) asked what the Internet enabled them to do that was not possible before. From this development, new methods and ideas around marketing have emerged. To illustrate this point, they explain the ability to now truly focus on the customer instead of the market (customer-centric marketing). There is no reason to believe that this evolution won't occur in other business fields, or the classroom, as well.

Figure 1



So how do we get this evolution to occur in our classrooms? Figure 1 summarizes this evolutionary process. Following the marketing example, we need to stop looking at the technology as a facilitator (tool) and start looking at it as an enabler (method). What does it enable us to do? How does it enhance teaching? What can our students learn now that was unavailable to them only a few years ago? What is the value added aspect of online learning? Is there learning that is occurring which is unexpected by the instructor? ABSEL is no stranger to these questions and should be an ideal area for examining this area more fully.

In fact, these are almost the same questions that have been asked about experiential learning. Gentry and Burns (1997) mentioned the need of researchers to look at and measure the 'value-added' of experiential learning. Studies as far back as the 1970's, mention that students often learn items unexpected by the instructor (Frazer, 1977). With the similarity between the questions asked about experiential learning and online learning, ABSEL should be a leader in this field of research.

CONCLUSION

ABSEL's research to date has treated online learning as a tool. The technology of the Internet allows us greater flexibility in how instructors present materials. At some point though, we need to delve deeper into the base characteristics of this technology. Without understanding these characteristics, it is impossible to understand what it can enable us to do, or teach, that was unavailable before. Following the same steps that have occurred in marketing research, we can expect that a greater focus on the characteristics of the Internet will lead us to a new thought on online learning, or a new paradigm.

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