Online Education: A New Way of Learning

An Honors Thesis (HONR 499)

by

Rebekah Kottlowski

Thesis Advisor
Nancy Clevenger

Ball State University
Muncie, Indiana

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Abstract:

The purpose of this project is to explore the new and controversial realm of online education. The varying types of online education, the five-point continuum, online education organizations, advantages and disadvantages of online education, trends, issues, and information of current virtual schools are discussed.

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Introduction:

Bill Gates stated, "Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important." As an elementary education major, I have learned that integrating technology into the classroom curriculum is becoming integral to students' success in learning 21st century skills. In fact, integrating technology has become so important that many virtual and internet schools have become popular in the last decade. The widespread growth of technology becoming the teacher has many educators concerned about the quality of education thousands of students are now receiving. Perhaps in this scenario, the teacher will become the tool instead of the most important apparatus to learning. Therefore, I decided to investigate the realm of online learning. Online education takes various forms, has many advantages and detriments, but has an overall impact on traditional education currently and will in the future.

Types of Online Learning:

It is essential to understand the differences between the major types of online learning in order to grasp the scope of online education. There are six major types of online learning, the first being distance education. "Distance education is teaching and planned learning in which teaching normally occurs in a different place from learning, requiring communication through technologies as well as special institutional organization" (Moore & Kearsley 15). For example, a teacher will record a lesson that is later distributed to the students via the Internet. The students will then listen to the lesson at a later time. Distance education has both learners and a teacher, content organized around a set of learning objectives, some designed learning experiences, and some form of evaluation. E-learning, the second type of online learning, is education that uses the Internet. This is similar to distance education in that the teacher and learner are not in the same physical location. However, it is only using the Internet to relay information, versus distance education that can use paper and other non-Internet materials transferred between the teacher and student. It can occur in or out of the classroom therefore it can be self-paced, asynchronous learning or it may be instructor-led synchronous learning. This type of learning is suited to distance learning and flexible learning, but it can also be used in conjunction with face-to-face teaching, in which case the term blended learning is commonly used. Next is asynchronous learning: a student-centered teaching method that uses online learning resources to
facilitate information sharing outside the constraints of time and place among a network of people. It emphasizes the importance of peer-to-peer interaction and utilizes email, electronic mailing lists, threaded conferencing systems, online discussion boards, wikis, and blogs. This is different from the traditional classroom in that the student is learning from the teacher at a different time. For example, the teacher gives access to the student to a website that contains all the information, assignments, and activities the student will need for the course. The student can then learn at their own pace to complete the course on a time-table that works best for him or her.

Distributed learning is an instructional model that involves using various information technologies to help students learn at any place and any time. This is also known as computer-mediated instruction which encompasses technologies such as video or audio conferencing, satellite broadcasting and Web-based multimedia formats. The last distinction that must be made is between virtual schools and virtual learning. According to Susan Lowes from the Teachers College at Columbia University, the term virtual school is used to refer to two very different types of experiences.

"Fully developed virtual schools offer students the opportunity to take an entire diploma online while not attending any site-based school. There are relatively few full-fledged virtual schools as most are charter schools and a few are virtual schools for students whose schedules make it difficult for them to attend site based schools, for instance, athletes and actors. Virtual learning, on the other hand, is what students experience when they take one or more courses online while also attending their site-based schools."

With these distinctions in mind, one can more clearly distinguish the levels of distance education.

**Online Education Continuum:**

There are five central points on the online education continuum. At the far left are single-mode institutions. At these institutions, distance education is the sole activity. The course development, instruction, evaluation and other educational processes are tailored to the distance learner. However, this has not found much favor in the United States in the public sector. Many learners desire face-to-face and hands-on interaction between the teacher and the student. The
public also tends to assume that the courses, especially at the collegiate level, are not as valid as those taken at a traditional school or university. Still, the popularity of the University of Phoenix and K-12 schools such as Connections Academy, Indiana Online Academy and K-12 Inc. may soon change that opinion. Next are dual-mode institutions. This is an institution that adds distance education to its previously established campus and class-based teaching. The United States Army War College and Pennsylvania State University World Campus are prime examples of this level of distance education. Pennsylvania State University is an established, physical university in the state of Pennsylvania. In 1998, the University added its World Campus in addition to the traditional in-person courses already available. Now, students across the United States, Canada and other countries are able to take courses online that fit his or her schedule. The United States Army War College is similar in that they added an online component to their already established school so that students from all over the world can be a part of the school as well. In the middle of the continuum are individual teachers. Many institutions encourage their faculty to deliver part of their classroom teaching online or deliver one or more of their courses as distance education courses with no classroom component. Ball State University encourages the faculty to initiate such courses. Virtual universities and consortia are organizations that provide a face in the form of an online portal where members of the consortium list their course offerings. For example, the Indiana Virtual Learning Consortium is an online portal that represents The Indiana Academy for Science, Mathematics, and Humanities; Indiana Online Academy; Indiana University High School; the Indiana Virtual Academy and Ivy Tech. This consortium brings together a variety of options for students to learn in ways different than the traditional model. Lastly, individual learning is using the Internet’s resources to learn something on one’s own. This comes about through using online encyclopedias, video tutorials and search engines to teach oneself a new skill or fact. This level is quite unorganized yet very common form of online learning.
Online Education Organizations:

As the various forms and types of online learning are expanding, there has been a call in recent years for a governing body or bodies to ensure quality online education. The two main organizations are ISTE (The International Society for Technology in Education) and iNACOL (The International Association for K-12 Online Learning). The ISTE website states: “ISTE is the premier membership association for educators and education leaders engaged in advancing learning and teaching through innovative and effective uses of technology in PK-12 and teacher education. Founded in 1979, ISTE has become the trusted source for professional development, knowledge generation, advocacy, and leadership for innovation.” This organization has also created its own standards for learning, teaching and leading in the digital age and they are widely recognized and adopted worldwide. Another online education organization is iNACOL (International Association for K-12 Online Learning). This non-profit organization’s focus is to develop policy for student-centered education and to develop standards for emerging learning models, such as online learning. According to iNACOL, their goal is to “ensure that students everywhere have access to a world-class education that prepares them for a lifetime of success, no matter their geographic location or economic situation.”

Advantages of Online Learning:

There are many advantages of online learning for both traditional and exceptional students. According to the National Primer on K-12 Online Learning some current benefits of online learning include:
• "expanding the range of courses available to students, especially in small, rural or inner-city schools, beyond what a single school can offer;

• providing highly qualified teachers in subjects where qualified teachers are unavailable;

• providing flexibility to students facing scheduling conflicts;

• affording opportunities for at-risk students, elite athletes and performers, dropouts, migrant youth, pregnant or incarcerated students, and students who are homebound due to illness or injury;

• providing credit recovery programs for students that have failed courses and/or dropped out of school, allowing them to get back on track to graduate;

• helping students that are currently performing below grade-level to begin catching-up through blended learning;

• addressing the needs of the Millennial student (students who enter college after the year 2000 who have been immersed in online technology throughout his or her grade school years);

• providing on-demand online tutoring; increasing the teaching of technology skills by embedding technology literacy in academic content;

• providing professional development opportunities for teachers, including mentoring and learning communities” (Wicks 10).

Other advantages include:

• Increasing access to learning and training as a matter of equity

• Improving the cost effectiveness of educational resources, for example in 2005 the Ohio legislature studied the cost of its eCommunity Schools and found that they spend $5,382 per student compared to $7,452 for students in brick and mortar charter schools, and $48,437 for students in traditional, non-charter schools. In 2008, Cathy Cavanaugh conducted a survey that showed an average yearly cost for a full-time online student at $4,310 compared to the national average of $9,683 per pupil. In 2010, the Alliance for Excellent Education reported that “the state virtual system in Wisconsin per pupil cost is $6,500 in the virtual system compared with the national average of almost $10,000 per pupil in a traditional system.” (Wicks 15)
• Improving the quality of existing educational structures through the utilization of technology and other worldviews.

• Enhancing the capacity of the educational system by allowing for another group of students besides those in the traditional school building to learn at a school.

• Balancing inequalities between age groups so that older students can feel confident in going back to school.

• Delivering educational campaigns to specific target audiences.

• Providing emergency training for key target groups such as disaster training for first responders immediately after an incident.

• Expanding the capacity for education in new subject areas.

• Adding an international dimension to the educational experience.

• Providing alternate ways to accomplish academic tasks, for example, "a student with cerebral palsy may have trouble speaking intelligibly but can engage in a class ‘discussion’ through online chat or instant messaging. A student in hospital isolation can use videoconferencing to practice French with a classmate" (Keeler 126).

• Online environments can also reduce the visibility of students’ exceptionalities, for example, "Michael Pugliese, a 10-year-old gifted student who took high school courses online through Oregon’s CyberSchool said ‘I used to go to school, and the kids were always making fun of me…. But when I’m talking to older kids on the Internet, it doesn’t matter how old or big I am. In CyberSchool, I’m just the same as the older kids’” (Keeler 126).

Disadvantages of Online Learning:

While there are many advantages to online learning, there is still a strong argument against online learning. The three main causes of dissatisfaction and resistance to online learning are: (1) bad course design and teacher incompetence (for example, a hard to navigate website or a course that provides little to no interaction between the students and teacher); (2) Wrong expectations on part of the students (the students expect the course to be easier, but is not always the case); (3) poor technology or inability to use technology properly. This being stated, many students say that they prefer traditional classroom learning even though they enjoyed his or her distance-learning course and found it worthwhile. Another disadvantage is the misconception of
students in that they may believe that distance education courses are easier than the conventional classes and require less work; however, this is not the case. Students may also assume that the distance education courses will be of lesser quality and avoid the courses. Software and hardware are necessary to engage in online education and this can be costly to some students. The digital divide ("the disparity in the availability of computers and Internet access among students" (Wicks 36)) may also be an obstacle for many students who would benefit from online learning. The need for teachers is also a large argument. If online education becomes the norm, fewer teachers will be needed to guide a class and therefore the demand for teachers may go down dramatically. Sherri Wood, the president of the Idaho Education Association, stated that online education "trades teachers for technology." Critics also argue that online learning will be used as a way for school districts to cut corners on spending—to the detriment of their students’ educations. There is also a concern that the private sector may be behind the push toward online learning, so that companies creating online content can reap the rewards from taxpayers. The makeup of courses may be too easy, therefore being used as a means to artificially increase graduation rates without students gaining the knowledge they need. Online learning is thought to increase plagiarism as students are completing courses entirely online with no teacher present to detect plagiarism as well as cheating. Online learning fails to take students’ individual learning styles into account. Online learning adds more screen time for an already tech-saturated generation. Lastly, future technology changes can hinder software creators from creating a sound educational product. Online learning may appear in one form now that will morph and change with the future technology.

Trends in Online Education:

There are five major trends in online education within the past five years according to an iNACOL survey of Policy and Practice of K-12 Schools Around the World. These trends are related to demographics, support from governments and schools, teacher training, the use of blended learning, and the use of online learning. Trend one: Blended and online choices are most available to students in urban areas from developed countries. While online learning is used in many different countries (including but not limited to the U.K., China, Japan, Korea, Brazil, Finland, Norway, Australia, New Zealand, Republic of South Africa, Turkey, Pakistan, India, Thailand, Germany, Netherlands, Portugal, Spain, Arab States, France, and Italy) students living
in North America, Western Europe, Asia and Oceania have the most access to these choices. Trend two: Growth in digital learning stems from shared authority between local schools and national governments. In the study, almost 60% of the countries reported government funding for blended or online programs. Trend three: Specialized teacher training is not required but is encouraged and available. Of the countries that reported government funding for online or blended learning, 11% indicated that a specific license or credential was required of a teacher before teaching in an online or blended classroom and 25% required specific training. Trend four: Blended learning is occurring with much greater frequency than online learning. Thirty-five of the 54 countries who responded to the survey indicated that online and blended learning opportunities were available to at least some students. Exclusively online education is not the goal but using blended learning as a complement to traditional learning seems to be taking off in greater numbers. Trend five: The use of online learning is most prevalent by students with special circumstances. Countries like Belgium, Italy, the Czech Republic, Russia, and Slovenia reported that “online learning was used most commonly for student athletes, students with chronic illness and disease, and those who were hospitalized, homebound, incarcerated, and severely disabled.” (Barbour 9-14) Few countries have a widespread general student population interest in online learning except for New Zealand, Australia, Turkey, China, and British Columbia.

The countries involved in this survey also listed several issues with online learning currently. One issue is that there is no clearly defined international understanding of online learning. There is also a lack of equitable access to the Internet, technology tools, and resources for online learning. Another issue is a lack of government funding or policies to promote online learning versus traditional brick-and-mortar schools. Most of the funding is to help integrate technology into the traditional classroom, not specifically for online learning. There is also a need to focus on teacher training and their role. Currently, most countries do not require teachers to have any particular training in the area of online pedagogy. Lastly, the kinds of students being serviced by online learning is often limited to students with extenuating circumstances, such as “students who are geographically isolated, are traveling overseas, have medical issues, or who have selected home education and have access to virtual education.” (Barbour 15-17)
Examples of Virtual Schools:

The Florida Virtual School in the United States is a completely online school that enrolls 30,000 to 40,000 middle and high school students each year. They offer over 120 courses and are said to be “as real as the dedicated, certified teachers who teach them.” (www.flvs.net) Students are not required to live in Florida and can be from a public, private or homeschool background and in grades Kindergarten to 12. However, if a student is a Florida resident, he or she can take any course for free. According to the Florida Virtual School website, the mission of the school is to “deliver a high quality, technology-based education that provides the skills and knowledge students need for success.” The school’s vision is along the same lines “To transform education worldwide—one student at a time.” The school also has a core set of beliefs including “every student is unique, so learning should be dynamic, flexible and engaging; students should be integrated rather than isolated; and students should have choices in how they learn and how they present what they know.”

The K¹² Inc. community of schools is nationwide. This network offers online public schools, online private schools, and individual courses for sale. The target audience includes: “everyone from struggling students to advanced learners, college and career-minded students, families that choose homeschooling, children of families in the military or those with overseas commitments, elite athletes and performers training for competitions or careers and children who are homebound for a variety of reasons.” (www.k12.com) The Hoosier Academies in Indiana is one of the K¹² public schools. It is a public charter school authorized by Ball State University (Office of Charter Schools) that offers a blend of online learning and face-to-face instruction. The school is tuition free and offers all Indiana diploma tracks along with support from Indiana-certified teachers. Core courses include Language Arts, Math, Science, History, Art, and Physical Education and Wellness.

Conclusion:

The considerably new concept of online education is very far reaching into the realm of traditional education. The overall impact on education from online education is significant. “K-12 online learning has the potential to dramatically change the educational experience of every student in any country, providing access to a world-class education with the best teachers and the best resources internationally” (Barbour 9). While many educators may not agree with the
specifics of online education, who would not want to help change the educational experience of every student for the better? Matthew Wicks states in the National Primer that "the research conducted so far has generally concluded that online learning is as effective as traditional classroom learning" (Wicks 38). The research and benefits from online education, even in its simplest form can improve the educational experience of most students. I agree with Bill Gates, the teacher is the most important in the education equation; but technology is an increasingly important tool that should not go to waste.
Resources:


*Indiana virtual learning consortium.* Retrieved from http://www.bsu.edu/academy/ivlc/about.htm


*Penn state world campus.* Retrieved from www.worldcampus.psu.edu

Wicks, M. (2010). *A national primer on K-12 online learning.* Vienna, VA: iNACOL