Examination of Masters of Educational Technology Leadership

Portability of Public Education

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I have always been interested in technology, from watching my dad work with punch cards on large servers, to wanting to get my hands on the newest technology today. I have been in the tech world, and rode part of the Internet bubble before it burst. I have been an Information Technology manager and helped business develop a sound technology environment. After years of providing technology support, I came to the realization I wanted to train individuals to use technology making them more aware of the tool they are using. I became certified as a technology applications teacher for all grade levels and I focus on teaching students web technologies, multimedia, video production, and animation and anything else, for the most part, that I can offer them about technology.

Leadership Goals

My continued education with Lamar University has offered me additional insight into how education and technology are working together. I have learned unique tools that can allow students to express themselves with multimedia, communicate across wide distances in virtual environments, and utilize course management systems to participate in courses from school or at home. As an educator, I have seen that most students are very well versed in technology; however, some students are limited in the ability to achieve their goals. The current school systems offer very limited opportunities for students wishing to take courses that are not offered within their school or district. A student in a rural community may wish to take a computer aided drafting course, but when the course does not make, they may end up in an agricultural course. I plan on using my leadership skills to help schools work together to expand course offerings to online learning resources for their students. This could lead me into a position of helping a small school district setup online learning courses or I could become a specialist that helps numerous

schools set up a multi-school online classroom exchange, or even work for an online public school. "The abundance of resources and relationships made easily accessible via the Internet is increasingly challenging us to revisit our roles as educators in sense-making, coaching, and credentialing" (Johnson, Levine, Smith, and Stone, 2010). With the technological resources we have available to use today I hope I can encourage a change in the way education is available to students, from helping develop crossover campus and Internet-based degree programs to completely Internet-based high school options for students. My hope is that every student can benefit from any educational opportunity they desire from any location.

Vision of Educational Technology

J.C.R. Licklider said, "As part of its contribution to the intellectual process, the computer will explore consequences of assumptions. It will present complex systems of facts and relations from new points of view, 'cutting the cake another way' in a fraction of a second. It will test proposed plans of action through simulation. It will mediate and facilitate communication among human beings. It will revolutionize their access to information. It will even obtain for them the aid and services of other digital computers" (1962). As one of the founding fathers of the Internet, Licklider envisioned a world in which humans would interact with computers to access information anywhere in the world. Forty years later the Internet was growing rapidly, and today universities, public schools and a growing number of the population now have access to a global collection of information from anywhere that an Internet connection is available. With this change I believe we are on the verge of a revolution in how public education is approached. Not only will students be able to reference resources on the Internet, but also I believe schools will become more flexible in how courses are offered, including but not limited to, a combination online and physical-based schooling option. "People expect to be able to work, learn, and study

whenever and wherever they want" (Johnson, Levine, Smith, and Stone, 2010). This does not just include adult learners, but K-12 students as well, whether it be parents who need to travel with elementary or intermediate age children, or high school age students who need to fit a work schedule around their public education. In the near future we will see a growing demand for flexible education options. "With limited tax bases, low enrollments and difficulty in attracting and keeping certified teachers, their issues are fundamental and can jeopardize their very existence. The data suggests that they are making valiant efforts to overcome these issues and online and blended learning are among the strategies for doing so while providing quality educational programs for their students" (Picciano & Seaman, 2010).

An additional resource to a more portable education is the increase in electronic books. The most recent forms of digital books can hold thousands of works. Just as we saw the printing press make knowledge more available and portable five hundred years ago, we are seeing the same change occur again with modern technology. Instead of students carrying around four or five books at a time, they have the means to obtain information from all over the world with just a few clicks or taps on a screen. These two items will be key factors in how education will change in the next decade.

Sixty years ago our parents or grandparents relied on a daily newspaper, radio, or possibly television to get current and accurate information. If they needed to learn, they went to school or the library to get a book, encyclopedia, or journal; and, they were limited to what was available at that location. Today, information is everywhere, and it seems that people can not get enough. The biggest growth area for accessing this information is in the mobile market. According to *The Horizon Report* "The fastest-growing sales segment belongs to smart phones – which means that a massive and increasing number of people all over the world now own and use a computer that

fits in their hand and is able to connect to a network wirelessly from virtually anywhere" (Johnson, Levine, Smith, and Stone, 2010). The fastest selling mobile computer device is the iPad. With over 2 million sold, it is already being used on college campuses as a collection of research tools in regular and mobile classrooms, giving students the capability of accessing course material and communicating with their professors. The law states that children are required to receive a public education, and this has been readily available in the form of school buildings; however, static buildings can limit students in both rural and urban environments. Rural students in smaller schools are often limited to core courses with the few electives that meet graduation requirements or that can be used to acquire additional funding. Urban schools can be limited to the neighborhood a child lives in and the school they are designated to attend. These are physical limitations that mobile computing and online courses can help overcome. Some possible solutions that already exist are online schools that offer a wide selection of courses for all grade levels. Some online schools even offer a fully accredited high school diploma. Another scenario would be for public schools to offer select courses online and allow students from other schools around the world to take the course online. Students who are limited by their physical location would then have a broad network of choices provided by other public schools to enroll in courses that better fit their personal goals.

The printing press made it possible to reproduce books rapidly and distribute them to libraries, schools, and individuals. This increased the portability of education to what could be included in a book and how many books a person were available to. When students can carry around a one-pound device in their bag, they are able to look up information from a large number of resources from around the world at any given moment. Since these devices can hold the digital version of thousands of books at any given time, the portability and accessibility of

knowledge is as notable a leap as the printing press was. “An expanding world of content, including historical documents, literature, articles, reference works, maps, charts, graphs, timelines, and textbooks, can be found on the Internet” (Wahl and Duffield, 2005). In addition to the amount of information the computer can hold and can retrieve, it will also be the tool used most to complete assignments. Betsy Price tells us that “To learn, students must use computers to store and organize information, enter and interpret data, do calculation, make graphs and charts, visualize difficult concepts, navigate interactive activities, receive immediate feedback, expand resources, update content, develop presentations, build publications, create artistic works, and so on” (2005). J.C.R. Licklider was correct; the computer has revolutionized the way we store and retrieve information.

What we can envision is students using the Internet and portable devices to access their school work from anyplace in the world, at any time of the day. Students will be contacting classmates and teachers at anytime, completing assignments individually or in collaboration without ever having to step into a school building. This is the change in education that I believe will be seen in the near future.

Self Discovery

“When many adults think back to what shaped their learning about a given issue, they cite some field trip they went on or competition they participated in” (Bacon, 2010). I believe this is true for any of us, whether as a student or an adult. Usually the most important things that help us learn are participating in an event. As Mark Twain wrote in *Innocents Abroad,* “Travel is fatal to prejudice, bigotry, and narrow-mindedness, and many of our people need it sorely on these accounts. Broad, wholesome, charitable views of men and things cannot be acquired by vegetating in one little corner of the earth all one's lifetime” (Twain, 1966). This statement by

Mark Twain is a good example of what our current educational system cannot offer and how we can use technology to improve this situation. Until recently, our educational system has promoted the concept of learning from "one little corner of the earth," even if books about other people and places are available. The books that schools select for classrooms and libraries have typically guided students; they were not encouraged to think outside of those parameters.

Students now live in a world where this style of education can be reversed. Students can use technology to bypass a physical school building, be part of what they are learning by traveling, participating in work study environments, interactive field trips and other events that are held outside the school building. Some students may have the opportunity to focus on extracurricular activities and have their education presented to them in alternative methods. Students can learn from wherever they are, and continue to learn with their online groups to provide a global learning environment.

For many years since I left web development prior to the dot com bust, I have been wondering what was going to drive me next. This course itself has helped me discover that I want to help organizations develop a better ability to train or work from any place in the world. This self-discovery in a way has been growing inside me. For many years I have felt that mobile devices would be the next big push; however, the use of the devices for true functioning tools is the bigger goal. Mobile tools for education can offer a large number of opportunities for global education, as well as financial opportunities for educational organizations to offer online courses. This concept of learning outside the "box" for students will lead to many workers who have the opportunity to work away from a corporate building.

In order for me to promote this in schools I need to work on improving my ability to present in front of others. Throughout this course I have not had problems leading when it came

to producing technical work or deciding on how to complete a project; my weakness in leading comes when I have to present or talk in front of others. While I understand the content, I stammer over words or hesitate in my answers of questions when in front of a group of my peers. In order to grow in this area, I need to continue to give presentations and group training sessions. This program has given me the tools to make sure I can provide better assessments and in return feel more confident when talking to others. One of the tools I gained in this program was how to research better, how to dig deeper to find better information that will help promote the use of newer technologies in educational or cooperative environments.

Influential Courses

EDLD 5301 Research Methods

Research methods, EDLD 5301, was for me the best course that I had in regard to the amount of knowledge I gained. Even during my undergraduate work I did not receive a course that offered concepts of how to do research. What I had practiced many times, but never knew the type of research it was called, was action research. For me, understanding action research in more detail would have been beneficial through most of this program. Unfortunately this course was introduced to me just two courses before my internship course. I have noticed it now is required to be the second course. I think this is a great advantage to all new students because it will allow them to start their research in that course and continue it for the rest of the program and present some quality research results.

EDLD 5306 Concepts of Educational Technology

Concepts for Educational Technology, EDLD 5306, is a great introductory course for this program. I found it very useful because it gave me a broad overview of what I would be experiencing during this program, from gaining a deeper understanding of the Texas STaR Chart

to understanding digital natives. I think we may start to see mobile natives as more and more students operate their technology in a mobile format allowing digital boundaries to disappear. I feel it is important for school districts to accept the concept of a digital, mobile, and social culture that is more defined by a student's willingness to learn rather than be confined by being told to learn. I believe if we encourage students to use the tools they are comfortable with and encourage them to learn about a topic with those tools, they are more willing to learn. In essence they are learning by showing what they can do.

EDLD 5362 Informational Systems Management

I felt this was an important course because it introduced some important aspects that technologists need to be aware of, and what can also be encouraged for educators to use. There were many articles discussing the use of online courses and the use of technology in education. Because this is a key area that I believe technology will be leading education, I thought many of the readings and the assignments were very useful. One of the items I found most interesting in this course was the discussion of course management systems. I believe schools will be implementing more of these systems and hopefully a statewide sharing initiative can get started where schools can offer their computer or web based courses to other districts allowing students statewide and nationwide opportunities they may not have in standard school settings.

EDLD 5364 Teaching with Technology

Teaching with Technology offered a welcome exposure to a number of online tools that provided collaborative learning environments. This I found very beneficial as I think students will be doing more of this in public schools as students begin to harness the power of digital technology as a learning tool. For this course the students had to work together over the Internet to complete a project. This was the first time I really had worked on the Internet with a group of

people I had never met before and actually completed an assignment. It makes me think of how changes are being made in the corporate world, but it also makes me think about how we can change teaching as well. If students were to work with other students all over the world, then they will open their minds to other cultures and individuals. This can be very important to both rural and interurban students as it gives them a broader perspective.

EDLD 5366 Digital Graphics and Desktop Publishing

Over time I found this program very useful. It was a nice refresher for me to take this course because it helped me remember some rules that I had not used since my college art classes about 15 years ago. These rules and other design concepts are ones I had forgotten, and also important items I need to be teaching in my technology application courses as well. While I don not see Desktop Publishing as an area that will be growing, I do see these tools useful in developing online multimedia based applications.

EDLD 5368 Instructional Design

This course really covered many things that I want to see happen in the future. As part of our assignment in this course, we had to create an online course using the website Schoology.com. Because I feel that more and more classes will begin offering some sort of online course management system for the students, I felt I was able to see one tool that is available to teachers. While I personally like some other applications that are available, this is a simple tool for schools or individual teachers to get started with to encourage a larger usage amongst their campus or district. The Internet is a powerful tool, and course management systems provide an important role.

Reflections of the Overall Degree Program

When I signed up for this program I had hoped to learn more about how to use specific technologies such as Photoshop, Illustrator or Adobe Premier, but as time went by I have learned

that it is not so much the learning of the tools as it is the understanding of how such tools can be used to increase learning. I have learned that as an Educational Technology Leader, I am to assist and provide guidance to other teachers and staff in implementing technology into district-wide usage. According to Jo Williamson and Traci Redish, "Without a full adoption of the TF/TL standards and the presence of qualified staff to implement them, schools and school districts will fail to realize the potential of modern technologies for learning" (2007).

Many people may say that an online education is not as credible as attending an actual classroom or physical setting; but this program has offered just as much intensity as attending a classroom at a physical location. I liked the five-week sessions because I had to focus each week on the assignment. The work was equal to two weeks of a class that may meet two or three times a week over 15 weeks. I worked with students from around the state to complete assignments. I learned from each, allowing me to have the same interaction I would have in a traditional classroom setting. All in all this has been equal to a degree gained at a physical location with a little more flexibility for me to do my work.

I truly believe education will change and we will see a continuing growth in online educational facilities from lower grade school levels all the way through university systems. More and more tools will be developed for education to become increasingly portable, and the separation between learning in a school and time outside of a learning facility will blend, creating a learning environment everywhere. Watson (2007) says "affording opportunities to at-risk students, elite athletes and performers, dropouts, migrant youth, pregnant and incarcerated students, and students who are homebound due to illness or injury; allowing them to continue their studies outside the classroom" is where technology is leading us.

Three-Year Plan

Over the next three years my plan is to increase my learning on specific software titles in order to be able to answer questions students and staff may have. I believe it is important to thoroughly understand the software in order to help others learn. From a career perspective I would like to continue teaching as I only have three full years in the classroom. Spending more time in the classroom allows me to continue to see how staff and students might use technology to learn. I want to help our district offer more opportunities so students may have access to computer-based learning tools that would allow them to submit ideas, take tests, and experience their learning outside of the classroom. One step I plan on introducing is a learning management system called Moodle. Since it is open source, I feel I can get the school to welcome the implementation of this tool. From there I want to present some sample classes, introduce these samples to other teachers, and encourage them to use the system as well. Even if they use it only to give tests, it can be a beneficial program. This tool will best be used as a means to improve interaction. "There must be interaction between the teacher and individual student for building a community of learners. Having the course materials online is not the essence of online courses, but the energy that flows into it, throughout the semester. This energy is the enthusiasm of the teacher to care, motivate, and make sure the student understands the materials for themselves" (Arsham, 2002).

Because I see the Internet as a great resource, I plan on trying a personal project over a set amount of time using only an iPad to see how well a device like that could be used as a tool for teachers or students in an educational environment. I will spend time researching available systems that interact with the school's network, including what limitations there may be, and what methods can be implemented for increasing educational opportunities.

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PROFESSIONAL EXPERIENCE

Maypearl ISD, Maypearl, TX 2007-Present
Technology Applications Teacher

Responsible for developing and managing the district website in addition to teaching the following technology application courses to high school students.

- Digital Interactive Media
- Web Technologies
- Audio and Video Production
- Principles of Information Technology
- Animation

Navarro College - Midlothian, TX
Adjunct instructor

IMED 1301: "Introduction to Multimedia" (Fall 2008, Fall 2009)
GRPH 1359: "Object Oriented Computer Graphics" (Fall 2008, Fall 2009)
ARTV 1303: "Basic Animation" (Spring 2009, Spring 2010)
IMED 1416: "Web Page Design" (Spring 2009, Spring 2010)

Texas Health Care, Fort Worth, TX 2006-2007
Systems Administrator

Provide support to local workstations and servers that provided billing and patient data to medical offices in the Fort Worth area.

Kimbell Art Museum, Fort Worth, TX 1999-2006
Technology Manager

Provide direction to use of technology for the museum. Responsibilities included, but not limited to:

- Technology budget and resource allocation
- Website management and design
- Network and server management
- Windows and Macintosh workstation and server maintenance

Southwest Securities, Dallas, TX 1998-1999
Web Developer

Focused on database integration with Cold Fusion web programming language for financial and non-financial websites.

MCI (Contract), Richardson, TX 1996-1998
Network Engineer

Maintained departmental servers and created department Intranet site to manage inventory of assets for field technicians.

Geo-Marine, Plano, TX, 1995-1996
Digital Cartographer

Utilized CAD and graphics software to develop maps for environmental reports

CREDENTIALS

Education

M.Ed., Technology Education Leadership
University of Lamar, Beaumont, TX
December 2010

B.S, Industrial Technology with a specialty in Industrial Graphics, minor in Art.
University of North Texas, Denton, TX
May 1993

Certifications

Technology Applications (EC-12)

Microsoft Word 2003

Apple Certified Help Desk Specialist 10.4