Technology and the Future of Adult Education

This is the first masters course I have taken where I have had the opportunity to learn more about the simplistic and practical ways in which adult education began. I think it is important to understand the history of adult education and also the practical ways in which learners have been taught in the past. Understanding this history and our changing society helps us understand the direction in which we are heading, now, in regards to adult education. I believe one of the greatest forces or influences for adult education in the future is technology. We are currently seeing the impact of technology on this generation's learners and I believe technology will only continue to grow and provide greater opportunities and access to learners in the United States. In this paper, I will first highlight some of adult educations history of practical and simplistic forms of teaching and learning before digital technology. Then I will break down the different ways technology is influencing our teaching, learning, and collaboration and I will also examine the effects technology has had in regards to access and opportunities to education for students. Lastly, I will conclude with the implications of these technological uses on the future of adult education.

Forms and History

The neat thing about the history of adult education, is how "grassroots" some of the educational tactics were in the United States. Before we had all of the technological advances like we have now, there was a lot of "homegrown" teaching happening. As technology advanced and personal growth and leisure were more of a focus, we see the different forms in which adult education started growing. In the 1800's, we first see a new and unique movement called the

Chautauqua. This movement marked a new way of bringing about adult education, in which teaching was brought *to* the community. These teachings came in various forms, from music and lectures to theatre and religious exercises. These teachings were very focused on self-improvement through the "literary, scientific and moral" topics (McCown, 1973). At this time, learning took place within a small geographical area and many of the people in those areas came from similar backgrounds and community life (McCown, 1973). Later in this paper, I will discuss the ways in which technology has helped diversity and widen an individual's learning sphere.

Jumping in the 1900's, we see some more simplistic ways in which adult education was taking place in China. China, and specifically Mao Zedong, had a big impact on many of the informal ways in which adult education is practiced here in the United States. Mao believed education was something that you needed to "take to your people" and he did so through very informal channels. These channels included signs, slogans, singing, and drama. And the learning environments included theatre, half-work half-learning caves, Lu Xun library, education halls, Lenin clubs (recreational clubs), mass singing, marching, and newspaper reading groups (Boshier & Yan, 2010). It is important for us to look back and see the simplistic roots from which adult education grew, so we can fully appreciate the new ways technology has expanded and enhanced adult education.

As we get closer to our present day, in this section on the history of different forms of adult education, we get to a tool that radically changed adult education: the internet. According to Merriam and Brockett (2007), we got to this internet technology stage by first going through two other "generations" of development. The first generation included mail, telephone, and radio and the second generation included printed materials, audio tapes, and television. The third

generation is where the internet comes in and this is where there was a drastic change in access to professors. This third stage includes "computer conferencing and networking, audio and video conferencing, and interactive two-way television" (Merriam & Brockett, p. 208-209, 2007). The internet brought about the most radical change in adult education "reaching" capabilities. The internet has "allowed students and faculty to locate, assemble modify and transfer documents and other file types all over the world, and has increased collaborative abilities far beyond any traditional means" (Bair & Stafford, 2016). The internet has had an impact on both formal and informal adult learning settings and will continue to give learners more opportunities to grow, learn, and develop in collaborative and inclusive environments.

Learning and Teaching and Collaboration

Technology applications and devices have changed the way we teach, the way we collaborate, and the way we learn. I think this quote from Merriam and Brockett (2007) accurately sums up this drastic way in which technology has changed adult education:

Suddenly, separate cultures, laws, regulations, and customs have been brought together in a kaleidoscope of learning. The result is chaotic, fun, challenging, and anxiety producing; it challenges all those who work in the field of distance education to broaden their perspectives; to strive for the implementation of best practices; and to encourage collaboration while respecting individual, group, and institutional integrity. (p. 209)

In the formal education world, technology has opened doors of collaboration between students who are in the same community, who are in other state, and who are across the country. One of the things I have most enjoyed about this master's program is that I have had the ability to collaborate with students from all across the country as they are all in pursuit of furthering their education and opportunities. Technology is deeply integrated into formal education settings with

98% of undergraduates owning their own computers and more than 63% owning a smartphone device (Jelfs & Richardson, 2013). With this technology has come a greater usage of e-books and e-material; most material is now available online and hard print is becoming a thing of the past (Vasileiou, Rowle & Hartley, 2013). In my master's program, I have been exposed to multiple new technologies within the past two years, which have increased my abilities to collaborate and create new projects with other students including: TedX, Google Hangout, VoiceThread, Google Slides, Prezi, Canvas, etc.

Technology is also highly integrated into informal learning environments. As new generations are exposed to technology younger and younger they are not only using technology in formal settings and informal settings, but they are also *learning* in a variety of informal settings using technology. Technology, particularly mobile technology, has contributed to the "conventional institutional boundaries between home, school and leisure... increasingly breaking down (Furlong & Davies, p. 45-46, 2012). Technology is aiding in breaking down barriers to learning throughout the day, by giving learners, both young and old, access to education instantaneously through their technological devices. Some of the newer ways in which technology has influenced learning, is the *ways* in which students learn: "play-fiddling and trial and error; observing and copying high quality production; producing, correcting, and reproducing; performing; co-constructing; and sharing" (Furlong & Daview, p. 54, 2012). With these new pieces of technology and the new ways of learning, adult educators must learn to embrace new technologies and use them to best benefit their students.

If a person does not adapt to new technology and continue learning and growing as technology changes, a person can lose their place within our technologically advancing society. With technology changing so rapidly, *educators* have needed to adapt and change their practices

to meet the needs of newer generations of learners; ones who learn in a variety of new ways because of their various technology (Furlong & Davies, 2012). Technology is integrated into most every facet of our lives and if adult educators steward their uses of technology well, they will have the ability to stay relevant and continue to help students stay competitive in our every changing world.

Adult educators are in every type of economic sector and reach so many different people with their teaching. These adult educators are in our schools, our businesses, hospitals, government, communities, etc. One of the topics we discussed this semester, was whether adult education should seek a unified vision of the field and achieve a greater sense of identity rather than remain steadfast in its emphasis on diversity and fragmentation. I argued *for* the diversity, because I see so much value in the different people reached and the different ways educators teach. Adult educators each use technology in different ways, and with our present society's emphasis on staying competitive in a global economy, technology is a tool that can help the United States fight to stay competitive (Merriam & Brockett, 2007). Adult educators use technology to help individuals continually learn throughout their lives and keep them up to date in skills necessary for the workforce and for the betterment of their lives.

It is important for educators to utilize technology in the most impactful and meaningful ways so their learners can get the most out of their teaching. Using technology to bring about critical thinking and learning is *one* of the best things I think adult educators can do for their students. Helping students become critical thinkers, helps them view the world and themselves in a different light. Critical thinking skills help them understand the importance of viewing learning as something that is life-long and not something that stops after high school. Ultimately we want students to be utilizing technology to better themselves and our society. I think this kind of

learning comes about when we treat learning and technology like an adventure. John Ohliger, treated adult education as an adventure and throughout his life shared ways in which we can help adults view their learning life through the eyes of adventure (Grace, 2009). When technology is tossed into this adventure, it brings about new and spontaneous ways of learning which keep educators from getting stuck in their ways of teaching and instead they are challenged to create collaborative and rich learning environments.

Access and Opportunities

With technology being such an integral part of our society for the past couple decades, we now have research and studies that have been observing the benefits and downfalls of technology. As with most things, there are pros and cons to technology in regards to access and opportunities for people. In some cases, technology has *widened* the access gap between the sexes, races, and ages; however, it has also opened up more *opportunities* for learning (Merriam & Brockett, 2007).

Looking specifically at access to internet in America, "three quarters of Americans have home broadband service today, seniors, racial minorities, low-income households and those with lower levels of education are less likely to have broadband at home" (Inverso, Kobrin & Hashmi, 2017). I believe technology will continue to become more accessible to these groups over time as adult educators stay abreast of these problems. There have already been many technological solutions which have been implemented to help bridge this gap in access, including: offline lessons that help students with basic skills, literacy, language, and job skills. All of these things can be accessed on cell phones. Another way in which this gap is attempting to be bridged is through local libraries offering free wifi or hot-spots to their patrons. This has allowed greater

access to learning opportunities for all of the aforementioned groups (Inverso, Kobrin & Hashmi, 2017).

Even though access to learning opportunities has increased, there are still disparities between groups, which is a gap that adult educators seek to close. Merriam and Brockett (2007), share a research review done by Anderson, Lundmark, Harris and Magnan which summarizes that:

Our systematic review of the data from large, representative studies has found strong evidence of persistent patterns of computer inequality among gender, income, and racial groups...While the qualitative evidence for widespread computer inequality is substantial, the qualitative studies reveal that the actual inequalities probably are vastly greater than the statistics indicate. (p. 212)

Even though technology has continued to bring more opportunities for learning and connectivity it has also brought about its own equality problems. In the next section on future implications, I will share the ways in which this gap is/can be combatted in the future.

One of the things I think is amazing about technology, is its ability to reach so many people at one time and the opportunities people have to highly promote learning opportunities. Thinking back to the amount of people that educators reached in the Chautauqua movement, as compared to *one* event, present day, there are increasingly more opportunities for learners to access learning opportunities. Learning is literally at the tip of their fingers. Or thinking back to the ways Mao Zedong was reaching his people, imagine if his people would have had access to educational opportunities like our learners do today!

Future Implications

I believe technology has the potential to have the biggest impact on the future because we have already seen the impact it has had on our past. Technology has had such a profound impact, and in the future it has the ability to continue to better its application and has potential to work through the current barriers it poses to some learning groups. Technology will continue to integrate itself into every area of human's lives and we as adult educators must figure out the best ways to harness this tool and change the lives of those we touch.

Technology will continue to help adult educators broaden their reach and help bridge current gaps in education and training. Bair & Stafford (2016) access that:

Mobile technology holds the ability to contribute to numeracy and literacy skills, the exponential enhancement of collaborative communication and problem solving, the rapid identification of learner/worker needs, and the ability to bridge the technology gap for those who have thus far been resistant to the adoption of technology in the workplace (p.129)

Technology has the power to change attitudes and aptitudes. Technology is something that can bring about self-directedness in learners and help them take charge of the learning they want to accomplish, both informal and formal learning items. It has even been found that this self-directed learning using mobile devices actually improves self-esteem and self-confidence of learners because they get to determine their own learning pace (Bair & Stafford, 2016).

In the future, technology will increase collaboration and make our world even more socially connect than it is now. Technology will also continue to connect students with material in ways that have not fully been explored and implemented thus far. These ways include cloud based curriculum and more collaborative ways of reaching solutions. According to Bair and Stafford (2016), "learning has an even greater potential to allow learners to self-regulate their

learning, solve real world problems and present their solutions using media-driven models" (p. 130). These learners using these media driven models learn best by having multiple channels of media put together to provide coherent and organized learning. These channels can include: text, media, pictures, sounds, and images (Bair & Stafford, 2016).

Technology in 2017 has already taught me new ways in which I can learn and also teach and I am sure in 2030 there will be a whole host of new ways! This semester I created a final project with a partner that truly put all of my technology skills to the test. For the brainstorming part of this project, my partner and I collaborated on Google Hangouts and then used four or five separate Google Docs to put pieces of our project in. My partner also introduced me to a new project management tool that she uses on a regular basis called Trello, which we used to figure out deadlines, create an agenda, knock off tasks, etc. To make this project as interactive as possible, we created a TedX lesson and embedded videos throughout our project, which we created in Google Slides. Within the Google slides we embedded links to our google docs, videos, literature review, and to our TedX lesson. We then exported it to PowerPoint to narrate each slide using the audio in PowerPoint and then posted our final project into a WordPress blog. My point in sharing *how* we created that final project was to share a real life story on how technology has drastically changed the way we create, implement, teach, and learn.

I like to think about the impact that technology can have on a person as a small part of a whole, meaning that a learner's first experience with technology is a small part of how that technology is *actually* impacting them. For example, if a student experiences or learns something new with technology, like learning new words in Spanish through a language app, and then they use their new found knowledge to talk to a co-worker or new acquaintance, that technology has been a small part of a bigger happening. What happens when that learner then goes back to that

same app or takes it to another level and starts learning about Latino culture through other forms of media? They start to learn and appreciate others. They start to be self-directed in their learning and they continue their pursuit of being lifelong learners.

Technology has the power to provide new ways to reach learners and new ways to teach learners. As adult educators we must strive to create meaningful learning opportunities by using every practical tool we have, one of the greatest being technology. We can use technology to help learners collaborate, problem solve, and explore new ideas and concepts. We should be using technology to its highest potential to help student reach *their* highest potential.

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