

Daniel Pan (00:00):

Hello and thank you for attending my presentation titled barriers to implementing technology in higher education. By the end of this presentation, I hope you'll be more aware about the current state of educational technology and its uses in higher education. The funny thing about this project is at the beginning of the semester I didn't know that its importance would grow as the current world situation has made technological advancements in education even more so important. Suddenly this assignment turned from having institutions can apply it and adopt new technologies to can they even survive without them in the modern world.

Daniel Pan (00:40):

A little bit of background about me. I am a second semester senior at the university of Mary Washington pursuing a bachelor's science in business administration and a minor in digital studies and communications. My passion for this topic stems from starting a media production company when I was a sophomore and seeing the new applications of technology and how it can help in marketing. And from there I took a marketing class here at the university and did new applications of technology and how they can be used for education. Led me to want to pursue a minor in digital studies. And in that digital studies class I applied both my business knowledge and my knowledge of digital ethics and the things that we're learning into that class and really generated a topic for discussion that I think is beneficial to universities all across the country. So how was the research conducted? The research was primarily conducted in two parts and facilitated with my faculty supervisor, professor beloveds. The first part of the research was online text research where it comprised of a lot of articles being read and a stereotypical research being done. The second part of the research is something that I wanted to ever leverage my personal connections for. I thought it'd be really interesting to get a lot of input from actual professors on their experiences with technology in the classroom

Daniel Pan (02:11):

For these reasons. I conducted a series of interviews. You can see here based on the people that I chose, that the purpose of these interviews was not just to target Mary Washington and learn stuff about us and impacts of technology that we have, but by representing community colleges, small public institutions, private institutions, and large public institutions. I felt like I was able to really grab a hold of the educational sphere as a whole and how educational institution really impacts it.

Daniel Pan (02:45):

Now, why is technology in the classroom important to understand this? You must understand what it means to be digitally literate. The definition in the middle is actually a definition that I came up with. After doing my research and talking these various people and to the sides, you can see that there are a lot of different factors that determine digital literacy, but the reason why digital literacy is so important in education is because it technology is currently what is driving our world. In fact, one of the most, one of the seven most important things on a job resume that employers look for nowadays is how digitally competent are you? It is no surprise that you're likely to gain more favor on a job application if you have a lot more software certifications than someone that you are competing against.

Daniel Pan (03:35):

Now, why is digital literacy important? From a student's perspective? It is important because it helps us communicate and collaborate with others, especially if they speak a different language. It also helped us with critical thinking, questioning how authentic and valid information on the web actually is.

Additionally, gaining digital skills is something that as technology has grown throughout the country, students have begun to adapt. Now as citizens. Why is digital literacy important? Well, as the world becomes more technologically advanced is important to know and be aware of the values and behaviors that are appropriate and not inappropriate on the internet. Being digitally illiterate helps you be informed, responsive and risk and responsible of your actions in the way that you engage and interact with technology. On the instructor side, having a good foundation in digital literacy automatically transfers to the students. A well-versed digital lyric and instructor will know how to identify things like cyberbullying and plagiarism and aside from that they will also push their students to be more creative and to use digital tools in a way that you can't and just an analog classroom. From some of my interviews it was very obvious that there is overwhelming support for educational technology. Now the reason why there isn't more educational technology and especially new technology in classrooms. That was the question that we were trying to figure out. We were trying to see if there are any specific barriers other than budget that we could identify and help create solutions for.

Daniel Pan ([05:33](#)):

So some pieces of software and hardware that I have had in my experience with the educational technology would be things like the Microsoft suite, the Adobe creative cloud being provided to us and the current stage of the world and pandemic. Zoom has been vital and replacing face to face interaction and lectures. Canvas has created a portal that is easy to navigate, students as well as instructors. And then more on the hardware side. Things like smart boards where you don't even need a dry erase marker to write on them have been very helpful and also innovative and eco-friendly and then labs such as at the university of Mary Washington we have the HCC, a digital lab where you can go for all of your tech needs. That has also been very beneficial to myself and my peers. So what are the barriers? I have identified four barriers. I think kind of sum up all of the problems that institutions face when wanting to implement new technology in the classroom to start. Cost. Cost is obviously a major barrier. Whenever you're talking about technology. Technology is very expensive and there's always a newer, shinier, more innovative thing out,

Daniel Pan ([06:50](#)):

But currently only 15% of student tuition costs even has the chance to go towards advancing educational technology. They lumped us into a category called academic support. Academic support can be your it help and it can be your digital knowledge centers, but it can also be administrative staff that assist students non digitally. The value. There is a very interesting divide in the classroom right now amongst instructors where we have instructors from the older generation who may not have even had a computer in their classroom to the new and fresh instructors who have grown up or the smart phone their entire life. This divide has caused a big guity and has resulted in not being able to make unanimous claims towards and advocating for the usefulness of technology regardless of how beneficial technology has been in studies.

Speaker 2 ([07:48](#)):

Of course

Daniel Pan ([07:50](#)):

The increasing technology in the classroom. There is also a negative side effect which would obviously be distractions. I am a personal victim of going on Amazon during class or Snapchatting or texting and so a very fair argument against wanting to implement more technology is that it is just another distraction.

Daniel Pan ([08:12](#)):

And then finally complexity. The definitions in my research of digital literacy com said that in order to fully understand a digital tool, you must know how to use it in your day to day life and not just in the classroom. Now it's easy to pull up software in class and barely go over the basics of it, but in order to be digitally literate in it, you need to be using it in day to day life, which is time consuming. And it also takes a lot of hard work and sometimes it's really costly to get the support for that when you're not within business hours. From my interviews, I also discovered some very interesting things, the barriers to tech, new technology in turn classrooms. Dr fryer, who is an adjunct professor at a private school said that the issue there wasn't more so the money it was that the resources and the technology and the funding was there, but the way that a faculty might've perceived it and fully utilized technology was lacking. Ms Newbill echoed the same thought. She said that the resources at old dominion are very plentiful, but sometimes they're underutilized. And she even went as far as to say that having to switch over classrooms to be completely online was a step in actually having people acknowledge that technology is needed in the classroom.

Daniel Pan ([09:51](#)):

So what are some solutions? Well, I broke down these solutions into short and long term solutions to start. Some of the short term solutions would be things like increasing the number of it personnel and increasing the number of it personnel. Not only would there be more of them, but each one of them could have a specialized field so that you are more likely to get the answers that you need help from.

Daniel Pan ([10:19](#)):

Additionally, something from a student's perspective that I would've really liked to see was a 24 seven help desk for any technological problems that can be open to students and professors. A lot of times our assignments aren't completed or being worked on or seven to nine to five or even nine to 10 reasonable business hours. Sometimes we are up at 3:00 AM completing an assignment, a call in help desk that open all the time would be helpful for us and professors who might even be trying to grade papers or complete assignment really late that run into a technological barrier. Some of the longterm solutions that I think would be very beneficial would be to start out students who are pursuing a career in education and ingrained the importance of taking a lot of technology into their curriculum from a super early beginning. This would include things like requiring students to take a class in order to graduate with an education degree on how to be digitally literate, teach them what literacy and ethics in technology means and require them to go through training on how to actually implement technology in the classroom effectively

Daniel Pan ([11:38](#)):

And interesting and longterm solution that professor Garcia and I talked about would be to increase the funding of research projects that instructors take on when there could be potential implicate positive of that technology being used in the classroom. His example was that he pays for Amazon web services AWS out of his own pocket, but uses it in the classroom. Amazon web services is quickly becoming a very popular source for databasing and storing information and we talked about how a really great way to help students understand the software, which is something that they could very well be likely using in the future would be to fund his research into Amazon web services so that in turn when the school is ready to adopt that and teach that to the students who already have a very good understanding of it. To sum it all up, I think one of the remarks that Mr. Hewitt made in our, in my conversation with Tam was the most spot on and made the most sense regardless of whether or not there is a need for the newest

and best technological thing, the students should always be the priority. If there is a piece of technology that an institution really feels like it needs and could enhance the learning experience of students that should be put first and budget cuts can be made elsewhere because the purpose of higher education as a whole is to enhance the student learning experience. All right guys, thank you so much for attending, and if you have any questions, feel free to shoot me an email and I'd love to discuss it with you.