

Assignment 4: Diffusion of Innovation

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Summary of the Interview

Through the interview with Leslie Kennedy, California State University, Long Beach Director of Technology Support Services, we could analyze the quality content with reference to various views of technology. Based on what she comments, “We're not here to make any faculty use technology. We provide the technology, if they want it. It's not our goal to require or move faculty to new technologies”, California State University, Long Beach stands on the side of neutrality and instrumental view point of technology. And also the interview shows that the California State University, Long Beach Technology department is following the theory of infusion of technology in that they don't desire to implement new technologies until it will be proven to be beneficial by other schools. The last part of interview shows that implementing new technologies are highly related to the budget because implementing a new technology requires not only cost of hardware and software but also a lot of planning, training, and consistent technical supports by people. The interview with Leslie Kennedy helped to have a clear view of how the theories of Technology are affecting decisions on implementing new technologies and some of the challenges in implementing new technologies.

Analysis of the Interview

Upon reviewing the interview, some key points from our past few readings came to mind. The university's method of adoption demonstrates the four elements in Roger's Diffusion Theory of Innovation. The interview also suggested that the university supports the Instrumental Theory

First, it is apparent that the university has implemented a strong method of adoption. The four elements from Roger's Diffusion Theory of Innovation can be seen in the university's method of adoption. During the initial period of research, the social system of the school is examined to determine which innovations would fulfill the needs of the school. After a decision has been made, the faculty is provided with resources (i.e. how-to videos, workshops, printable instructions). One important communication tool that is used is the e-learning consulting group. Each college has a few professors in this group, and they are responsible for showing their colleagues ways to use the technologies in their fields. Time is another important factor in the university's adoption method. They allow plenty of time, sometimes 2-3 years, for a technology to gain acceptance. They do not force faculty to use the resources. Rather, they allow them to use them at their own pace.

Second, the theory that seemed to stand out in this interview was the Instrumental Theory. The most prominent point is the idea that technology is neutral, as its user determines its purpose. At several points during the interview, Leslie Kennedy mentioned that the university does not force any technology upon its faculty. She stated that often times faculty think of ways to use the technologies that she would never have conceived. In other words, the value of these technologies is not pre-determined. Another point made that supports the Instrumental Theory is the idea that if a technology is successful in one society, it will be successful in another. During the interview, Leslie Kennedy mentioned that they often look to other universities to determine

what technologies should be purchased. They ask other CSU Academic Technology Directors to find out which technologies have been successful on their campuses.

This interview provided an example of a real-world situation. Both Roger's adoption elements and the Instrumental Theory were supported in Leslie Kennedy's responses. Overall, the university seems to believe that the users should help determine which technologies are implemented, adopt the new technologies at their own pace, and determine the value of these technologies for their own purposes.

Individual Interview Reflection: Marvin Mayo

Our group decided to interview the California State University, Long Beach Director of Technology Support Services, Leslie Kennedy. She seemed like the perfect candidate for our assignment since she oversees most of all the technology related activity that goes on at this institution. We wanted to ask her a few questions about how technology is currently being used on campus and what type of processes were in place to ensure that technology was implemented well amongst all the different groups that populate the campus. We tried to ask questions that were as general as possible to try to obtain unbiased responses.

The responses to our questions showed me that this campus takes on a very neutral position when implementing new technologies to the campus community. Technology purchases come from the assessed needs on campus and from suggestions from the faculty/staff. There were several occasions during the interview when she wanted emphasize that the latest technology was readily available on campus, but there is not any specific policy forcing anyone to use it. The technologies are only tools that can help education only if it is relevant to the teacher and subject matter they teach. The technology support group wants to be knowledgeable in the benefits of the different technologies and be ready to offer best practices when needed. Select tech savvy users are used to help spread the word on how these tools are currently being used on campus.

The interview enlightened me on how much research and planning takes place before a new technology is considered on campus. Especially when it is a major tool that involves many departments such as the learning management system. I definitely see the instrumentalist position the campus has on the implementation of technology. Feenberg (2002) states, "Technology, as pure instrumentality, is indifferent to the variety of ends it can be employed to

achieve.” Technology is merely a tool, and should only be used if it can provide beneficial outcomes and enhance a learning experience. They highlight that faculty/staff have a choice whether to incorporate technology into their daily curriculum or not at all.

In conclusion, I feel that this assignment helped me see a real life example of the diffusion of technology. The easiest part of the project was creating the interview questions and finding the perfect candidate to answer them. The most challenging part of the assignment was the analysis of how this relates to the various theories of technology. It’s obvious that the analysis was going to be the most difficult part of the project, but I feel that it has really opened my mind and clarified the differences between the theories. My original substantive view of technology is starting to lean more in favor of an instrumentalist view because of the logic of one having a choice to utilize a new tool.

Individual Interview Reflection: John Park

It was a very interesting interview with Leslie Kennedy, California State University, Long Beach Director of Technology Support Services. She was the perfect person to ask about the implementation of new technologies on campus. What she mentioned during the interview caught my attention that “We're not here to make any faculty use technology. We provide the technology, if they want it”. I think she supports the idea of an instrumental theory of technology that focusing on technologies as 'tools' standing ready to serve the purposes of their users. Even if the school accepts to use a certain technology, the school has to provide a lot of training for the teachers until a new technology will be fully accepted. As a result, Schools have to provide printable instructions, on-line how to videos, workshops or even send the Academic Technology squad to meet with faculty. It means that even requested technology will take a lot of training and time to be settled down which is the idea of infusion of technology. Furthermore, based on the interview, the biggest challenge of implementing new technology on campus is the manpower in other words budget. It is all about the fund, which will determine the timing of implementation of a requested new technology and the trainings for the implementation. In my perspective the second challenge could be the maintaining technologies that already are implemented. The interview with Leslie Kennedy helped me to have a better understanding of theories of implementing Technology.

Individual Interview Reflection: Melody Rodriguez

After reflecting upon the interview process, I realized that the most challenging, yet revealing part was the comparison of my personal view to that of the university, and specifically Leslie Kennedy. First, I will explain my thoughts on technology as a value-laden institution, and then, I will describe the theory supported by the interview and what I learned as a result.

Having read about both the Instrumental Theory and Substantial Theory, I had a preconceived notion about the theory I would find embedded in the interview. I believed the substantial theory to be most relevant in today's ever-changing society, so that is what I expected to find. Technology is in itself altering society, forcing change in ideas and values. It is not value-neutral, simply assimilating into a culture already in place. One example is the television. Society prior to the distribution of the television was very different than society afterwards. Elections, advertising, and home life were all altered drastically. I expected technology to alter life at the university in a similar fashion.

Despite my original ideas about how technology would affect the university, I realized that the interview supported the Instrumental Theory. Leslie Kennedy placed a great deal of emphasis on how the users control the adoption and use of new technologies. It is up to them how to use the resources available, giving them the power to determine the technology's purpose and value.

I learned that one theory does not fit all situations or circumstances. At this university, for instance, the Instrumental Theory is best suited to meet the needs of the faculty. The university, unlike many other institutions, is comprised of people from a wide range of backgrounds, fields, cultures, and ideals. Further, each college holds its own set of values. All of these factors

contribute to a technology's purpose and value. Each college and each professor will have different ideas about what purpose technology should serve. Rather than attempt to meet the needs of every individual, Leslie Kennedy purchases technology without a specific goal in mind. She allows the faculty to determine what its use. Overall, this theory supports a smooth adoption, placing the power with the users.

Individual Interview Reflection: Adan Gallardo

I found the interview with Leslie Kennedy to be very informative since it provided an interesting insight into how a large university implements new technology. I was surprised that our campus is not as technologically advanced as other campuses are, but as Ms. Kennedy points out, Long Beach is not in a position to make huge technological risks, due to the size of our campus. Even though Ms. Kennedy points out that our school was in technological stagnation for a few years before her arrival, from an administrative standpoint I can see it being to our advantage now. Our campus can easily implement newer technology that is not cutting edge without any of the risks of being an early adopter of new technology.

In searching for something new, her department has the option to look at other campuses to see what has worked and what problems they have had in implementing new technologies on their campuses. This vantage point allows the campus to install new technology or upgrade what we already have without having to worry too much about having interoperability problems or risk taking a vital component to campus operations down by accident.

Ms. Kennedy's view of technology is one that I easily agree with because they make technology available to the instructor for them to use at their own pace or when they are ready to implement the technology in the classroom as well as provide more than adequate amount of support. I agree with her, in that forcing instructors to use new technology usually ends poorly. I also like the idea of having a tech team going to the class room to help with make sure everything is supposed to work how it's intended and help relieve some of the anxiety a professor or teacher might have in trying something new in the classroom.

Appendix A: Interview Guide

Interviewee: Leslie Kennedy, Director of Technology Support Services

Time and Date: March 2nd 2010.

Place: California State University, Long Beach

Purpose: We chose the Leslie Kennedy because she oversees most of all the technology related activity that goes on at California State University, Long Beach. We wanted a firsthand example of how technology is diffused in a university and what types of processes were in place to do so.

(16) Interview Questions:

1. What was the most recent example of how the campus tried to implement a new technology?
2. How long does it generally take for a new technology to be adopted?
3. What factors play a role In deciding which technology to purchase?
4. Which factor influences a technology's adoption the most?
5. Does the faculty/staff generally embrace new technologies?
6. What factor(s) influences the faculty's acceptance of a new technology?
7. What information is researched before a technology is purchased?
8. Who is responsible for researching technology before it is purchased?
9. How did the campus evaluate the different technologies that were available?
10. What are some challenges you faced during an implementation of a new technology on campus?
11. Have you tried implementing technology that has not been successful?

12. How did your office respond to that situation, was it made unavailable as quickly as possible?
13. When a new technology is purchased, is it evenly distributed throughout the university or does a certain department try it before its wide distribution? If so, which department?
14. Is there technology training available for the faculty/staff?
15. Is there a committee or group of faculty/staff that work together to help others be aware of the new/current technologies?
16. Do you feel that technology can be utilized more in the classroom on this campus than it is already?

Appendix B: Raw Interview Data

Interview Transcript

Audio recording: http://section-31.org/files/Interview_Leslie_Kennedy.mp3

The first question is what is the most recent example of how the campus tried to implement new technology?

The learning management system, the process of selecting a new learning management system. For that process we're looking for other options other than blackboard. For the process we invited all the stakeholders to participate for the first meeting we got together and we identified the problem, change the LMS for certain reason. Poor technical supports, poor functionality, etc for a new LMS. So we came to consensus over that and we used that criteria for the stakeholders, what to review or evaluate the options that were available. When we were looking at the other tools we got demos from the vendors and Sandboxes, where we got to log in and play around with the tools and see if the work for us. Then everyone provided feedback on that criteria. All that information was compiled. Then whichever came back as having the most positive of popular bases on the feedback/reviews and worked technically in our environment, which was a key piece we also had a technical group of stakeholders review the options to make sure it worked with all the other systems we have on our campus. It wasn't 1 person making that decision, we can't make the decision to change a but we can make a recommendation to the provost. The provost agrees and disagrees, we give options and pricing which are important components criteria / categories for evaluating:

- teaching and learning
- the technical side (which isn't noticed or dealt with by the end users, the teaching side)
- business side/administrative, how viable is the company is it sustainable

How long can the process take?

The process can take a while for us (3-4months to organize people to come to meetings) LMS is a huge decision because it impacts many systems through the university. The LMS is a mission critical environment. Recently we selected other tools we have rolled: iTunes, Wikitools through wiki spaces. Because it didn't have a big impact we did our own review and determined to see what was important for our campus. And to see what others used as well. Clickers - In the last year we also decided to standardize the clicker tool. Process was started from the student side. ASI wanted to standardize for students to cut down cost. ASI Senate worked with member of faculty committee. ASI wrote a proposal and passed it, which was then presented to the faculty Senate by the VP and Pres of the ASI, which was passed unanimously based on the well-written proposal. Technology decisions aren't made by just one person to make sure they are successful. The campus was still pretty new to iclickers, so they weren't used too much on campus, but in the case if iclicker, they were the ones that were predominantly used on campus once decision was made about the iclicker, it was implemented by the next semester. The criteria for iclicker were: ease of use, accessibility, pricing, reliability and scalability. Back to the LMS assuming a decision was made it would take about 1.5yr aggressive timeline or normally 2-3 years to implement it at a normal pace. Primarily because of the huge amount of data to transfer and then to train students faculty to use them. they key is to get something that isn't too hard to learn like wit

What are the factors plays a role in deciding what technology to purchase?

It's usually based on need or request. LMS are standard that everyone has iTunes u, we were getting a lot of request for podcasts, which was free and only took time to

implement. The wiki spaces, we looked around to see what fit with the required criteria we had. The main one was accessibility and also pricing. It's mostly need based, although we can't always support it. We look at the scale, will it affect many people as possible. We look at the university, but the colleges also support their own software. We stay connected (Educause) to see what technology is being used in technology and what is "hot". Some of the journals I get are EduCause, then Technology in learning, campus technology. Most are online now or have gone out of business. CIO (hot technologies for the CIO) the person who manages all technology (Chief Info Officer).

How is new technology generally embraced by faculty and staff? How reluctant are they to accept new technology?

We're not here to make any faculty use technology. We provide the technology if they want to use it and that is the key piece. It's important for faculty to assess how technology can affect learning at all. and support that student engagement of learning or provide a possible authentic learning experience. It's not our goal to require or move faculty to new technologies

We provide it and if they want it, its there. Even beachboard, we create a course for all the courses on campus, but it's up to the instructor to use it. We provide training and workshops for however way they want to learn.

What information is researched before a technology is purchased?

- What needs there on campus.
- Accessibility
- Pricing
- What other competitors are there
- reliability

- scalability

Who is responsible for doing the research of the technology before purchasing it?

We're in a unique situation in that, technology hasn't been supported in the past few years and so we are a little bit behind. and it hasn't been that difficult since there are technologies that have pretty much become standardized on other campuses.

I meet regularly with the directors of Academic technology with in the CSU system and we ask each other what they are doing. So we know emerging technology is out there and get a sense of what other campus are doing and we are all pretty much the same. We don't work in a vacuum we know what is happening around us. We've come up to speed in the last few years.

What are some of the challenges when implementing new technology on campus?

Honestly it's man power. It's timing and making sure we have the abilities to be able to implement what we need to implement. The challenges are to meet those goals while maintaining what we already have.

Have you tried implementing a technology that has not been successful?

Remember we don't push anything. Actually not really, not yet. We use general technology that has been used on other campus, but we didn't have before. We've just been meeting the needs we have. The only thing is just having information become more accessible and providing the needs required.

When you purchase a new technology is it evenly distributed or do certain departments get to work with it first.

No. We support the university as a whole. We don't work with any department directly. We work with the stakeholders, a group of e-learning consultants, and faculty that have release time that work with us. Department specific software tends to come out of each individual department.

Right now the new LMS we are looking at has a learning outcomes module. For this we will work with certain departments to write the learning outcomes before we integrate it into the LMS.

Is there technology training available for the faculty/staff?

Currently people don't have time to come to face to face training or workshops.

We're making training available in multiple modes: printable, how to videos, workshops (last week we had one and only 1 person attended for a clicker workshop), we schedule appointments and send our "AC Tech Squad" Academic Technology squad to meet on faculties time. They are highly trained students, that go out and help the faculty, Not only on how to use the tools, answer questions, but to also be in the classrooms the first couple of times the tools are being used.

Is there a committee or group of faculty/staff that work together to help others be aware of the new/current technologies?

We have the e-learning consultant group representing each college. These are fulltime faculty that we pay 3 units release time for both spring and fall. They are designated to work with their peers in the colleges they are working to support them in any of these technologies. Like how does it work, what do I use it for, what are the pedagogical uses to using it? It really helps to have peers working with one another. People use technologies in ways you wouldn't even think of or even fathomed it. A lot of faculty also get ideas the conferences they attend and then come to use to find out how to use what they have seen.

Do you feel that technology can be utilized more in the classroom on this campus that it is already?

Yes and no. It depends on what you are teaching and it has to be relevant to whatever the learning experience needs to be. I've used it to contextualize and enhance learning, in the classes

I thought it was for English. This was another aspect that helped engage my students. What better experience than to be writing in the target language. It can enhance the experience by bringing a guest speaker to the class room via Elluminate, clickers to help keep students engaged in a lecture hall. The students get feedback, quick learning. There are theories out there that the learning experience is enhanced if there is quick feedback. It also depends on the instructor, some don't want to touch technology and it would be a bad mistake to force them. As long as the technology meets the class needs. Clickers would probably be useless in a writing class. I've seen technology used in ways that I've never expected it, but primarily to enhance. For example a class in the Design department was actually working on real live projects with real live customers, they need to interact with the president of the company and they used Elluminate in the classroom to present their proposals to the president that was in Boston. So they used technology for the learning, but it really wasn't about the technology. Or we have a professor in the theater department that is a big famous lighting expert that needs to travel a lot, but he is teaching still. Twice we've helped him with Elluminate from Hong Kong or from Norway. The students are here and he's teaching his class here while he is in Norway or where ever. We've made our lab available in case students feel uncomfortable with the technology from home or need help setting up. We also have a Gerontology class that uses Elluminate to connect international professors from all over the world to get perspectives to see what aging is in these different cultures. The students are presenting as well and the professors give them feedback. Again it's not about the technology, it would not work without the technology, but those faculty members see the value of that, but if the instructors doesn't we never ever want to force that on anybody or it will be a experience gone bad.

References

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