

Plugging into Students' Digital DNA: Five Myths Prohibiting Proper Podcasting Pedagogy in the New Classroom Domain

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Abstract

In the spring of 2006, California Polytechnic State University (San Luis Obispo) experimented in a formal pilot of limited scope to examine if podcasting technology is truly a viable asset for improving teaching and learning outcomes. The authors have found that despite the numerous journal articles deciphering podcasting technology, few discuss the impact upon university students from a pedagogical perspective. In this article, the authors will specifically analyze their preconceived notions (myths of podcasting pedagogy) and the device's design propensity for educational impact through both quantitative and qualitative methodologies.

What specific educational contributions stem from adapting, adopting, and diffusing dynamic podcasting technology as a communication device in the classroom domain? Three core concepts will be examined, which currently challenge the technological and academic implementation of podcasting pedagogy: 1) Method: Toy vs. Tool; 2) Content: Novelty vs. Knowledge; and 3) Delivery: Convenience vs. Competence.

Keywords: Podcasting Pedagogy, Digital DNA, iPods in the Classroom, Technological Myths, Online Teaching Tools, Technology and Learning, American with Disabilities Act

Introduction: The Podcasting Phenomenon

The rise in iPod enthusiasm is evident on most university campuses these days. A simple observation of student traffic confirms that within the student population iPod popularity rivals cell phone usage. The university's bookstore is stocked with a variety of iPod accessories ranging from designer iPod cases to high-end ear buds and connection devices that make it possible to "jam" to your iPod with an electric guitar. Clearly, the communication mobile device surge is not going to vanish as the convenience of these devices has pushed the boundaries even further by the iPhone amalgamation in July 2007.

What is the impact of these portable hand-held mobile devices upon student learning? What consequence does the information that students process in and outside of the classroom have upon their permanent knowledge and eventually their common sense and expertise that educators intend to groom? Is the information that students seek from such technologies congruent or different from that which they receive in the traditional, physical classroom setting? Can these devices bring added value to their learning experience or are they simply "toys/gizmos" that will eventually fade in popularity?

Let students experience the full power of education through eloquent communication and maximized technological implementation. As mentoring educators, this learning outcome goal is truly a challenging one, balancing the constant demand and struggle that exists between the traditional face-to-face forum and our own students' digital DNA. Obviously, the students have a penchant for this technology, yet the faculty body is slow to embrace it, potentially even censoring it. Questions arise to its effectiveness in academia and whether or not it is worth the time, resources, skill development and refinement it requires.

Granted, with the introduction of any new technology, there are preconceived notions (myths) accompanying the technology in its early developmental stages (Carpenter & McLuhan, 1960; Fiore & McLuhan, 2005). Indeed, it is often difficult to look beyond the marketing hype of a new technology and acknowledge that it is worth a new paradigm of hope; however, the authors propose that podcasting has excellent potential for creating inspirational and practical learning. Let's examine the myths that have surrounded this new technology:

The Five Myths

MYTH # 1: MP3 DEVICES PROMOTE SOCIAL ISOLATION AND EDUCATIONAL APATHY

From an instructor's perspective, by not removing their ear buds upon entering a classroom environment, a student has made a conscientious choice, symbolizing anything from merely escaping to intentionally disrespecting peers and/or instructor. Educators that view the device as a potential tool, rather than a competitor or interruption, will be eager to collaborate with these students, merely denoting a relaxed state-of-mind. Some students may, however, abuse this perception and intentionally push the boundaries as a "power play" by using the device as nothing more than a toy, taunting their instructor with the visible barrier they have just created. Pedagogically, the red flag that has just risen reflects the potential of a student's lack of comprehension, understanding, aptitude, and willingness to fully integrate into the classroom environment. Instead of fostering a defensive outcome for both parties, it is the instructor's responsibility to clearly and proactively promote a positive, inviting, and thriving academic domain.

From a student perspective, the instructor that limits or outlaws the MP3 device creates a very narrow-minded and isolated learning atmosphere. Through concise communication skills, educators can promote technological aptitude while simultaneously taking charge of the message. The instructor can immediately gain student respect and promote one's credibility as an educator, techno-centrist and communicator. Instead of speculating and assuming the worst, or stereotyping students, the lecturer can now firmly paint the guidelines of when, why, and how the usage of the MP3 device is appropriate, appreciated, and even invited into the classroom domain. The pedagogical concepts of a course's learning outcomes can be modeled effectively by means of applications such as podcasting.

Point and case, the following student comment demonstrates that students properly received and applied the intended message:

"I enjoyed the second podcast, 'Carpe Diem' the most. It was very intense and indicative of a passionate professor. It was also a great example of how Martin [the instructor] would like us to speak."

– Communication Studies 126 (Argument & Advocacy) Student, Fall 2006

It is important to point out that there are limitations to the time and space control of any learning environment (see Myth #4). The new classroom domain reaches beyond the traditional brick and mortar walls and extends dynamically and interactively to the students' private sphere. Instead of fostering apathy and isolation, the invisible classroom boundaries should be clearly established so that the value-added concept of engagement, in lieu of isolation, will be generated.

MYTH # 2: PODCASTING WILL NEGATIVELY AFFECT CLASSROOM ATTENDANCE

As students we never enjoyed courses where the exact reading material was regurgitated by the instructor in lecture or where irrelevant tangents found their way into hijacking the majority of class time. However, as instructors we must never forget what motivated, inspired, and impacted us back when we

were firmly planted on the other side of the podium. Educators should freely give credit to those mentors that made them who they are today – the ones that engaged and challenged them – the ones that made them think and instilled within them a passion for learning.

It is important that educators are neither ignorant nor hypocritical in regard to the educational process – it is about the quality just as much as it is about the quantity of information that is shared with students. Thus, the logical avenue for transmitting this information is through the full comprehension and application of significant information technology tools. Indeed, the Internet has forced the integration of traditional media with electronic media and then some, which we have learned to acknowledge with the buzz term of “digital convergence.” The authors feel, however, that many educators fail to recognize that digital convergence refers only to the technological tools, not the academic mindset and the fusion of those resources into pedagogic synergy.

The 20th-century German philosopher, Jürgen Habermas (1989), defined the concept of three dimensions: the public, the private and the expert spheres, which shape the knowledge-sharing environment. In the 21st century, educators need to remember that such a privileged position as “expert” in front of the classroom is preserved and justifiable only as long as the instructor truly stays ahead of the class. As leaders and mentors, we must properly represent the expert sphere to avoid the lines from becoming blurred. Students are confounded and inundated with the plethora of information available to them from so many competing venues. This is exemplified through the challenge of unfiltered “infotainment” and “docudrama,” in the MySpace®, Facebook™ and YouTube™ forums, to name just a few.

The credibility of the information is dependent on the source, which needs to be the faculty. However, many faculty considering podcasting have expressed concern that its use might result in lower class attendance as students might possibly choose to stay in bed and download the lecture at a later, more convenient time. The authors’ response to that concern: instructors must continue to take on the role of Socratic mentor and guide students as they sift through the mass quantities of information that they will encounter within their selected discipline. If education is to remain vital then educators need to take charge so that they are not replaced through convenient tools such as Wikipedia and online blogging technology. Pedagogues need to acknowledge that our audience of modern critical thinkers is both technologically savvy and saturated in this contest for valuable information distribution – and for all intents and purposes, the instructor is essentially in a competition between convenience and competence. At the very least, one must remain “in step” with students, if not on the leading edge, and provide them with the stewardship to differentiate among the most significant material in a manner that reflects both competence and convenience.

MYTH #3: PODCASTING IS ONLY A REHASH OF THE COURSE LECTURE

Obviously, the most “convenient” choice when considering implementing podcasting is to “live tape” in-class lectures and then post them online, unedited, for student download. This approach, although convenient, does not really do justice to the medium, so the authors ruled it out except in the case of an emergency one-time solution for the instructor who might need to miss a lecture period. Again, the primary aim of utilizing this tool was not for convenience; rather, to look for competence in qualitative information sharing that serves the students in a more supportive and supplemental role. Instructors can provide students with opportunities for learning at times and places that work best for students. They can determine both time and location. Instead of boring them with a bland rehash of two hours of lecture, why not provide them with convenient digestible nuggets of inspiration, motivation, and knowledge?

Admittedly, considering the digital forum, it is crucial to walk the thin line of appeal and impact with care. This is where the dimension of 1) technological potential; 2) pedagogical objectives; and 3) motivational purpose need to be carefully analyzed. Essentially, with podcasting instructors will gain the opportunity to expand both the premises and the timeframe of the classroom but it will need to be a suggested, self-selection process that truly establishes a win-win situation for both student and teacher.

The function of the physical classroom can be viewed as another symbiotic relationship – one in which students already come prepared to class with a reading foundation. The instructor takes the opportunity

to expound upon this non-verbal foundation through interactively triggering the abstract concepts with more concrete application, or vice-versa (verbally). Cal Poly's "Learn by Doing" motto is based upon this concept of fusing student preparation with instructor subject matter expertise and enthusiastic application in order to provide a complete learning experience with whatever means the instructor deems necessary. Podcasting fits very nicely into the overall pedagogical philosophy of our university.

Student surveys completed at the end of each quarter clearly demonstrate that students grasped the value of podcasts as a useful tool for saving class time and allowing for more interaction and class discussion:

"I think it was a good and effective way to get out a mini-lecture or an assignment and it also helps to save time in the classroom because everyone will have been already able to hear it."

– Communication Studies 102 (Principles of Communication) Student, Fall 2006

Student feedback further acknowledged that supplementary podcast sessions are not merely a short-term novelty but a tool that can be assimilated to maximize comprehension:

"The podcasts are definitely a good thing. They're a great way to clarify assignment questions or to help people to understand what they are going to be reading. I think that podcasts in the future will continue to help me throughout the course."

– Communication Studies 101 (Public Speech) Student, Spring 2006

MYTH #4: PODCASTS WILL INCREASE STUDENT ANXIETY & CAUSE INFORMATION OVERLOAD

Naysayers of podcasting often propose that students may possibly feel overwhelmed by the addition of more material in a course where podcast listening becomes a requirement. In this pilot, the authors did not find this to be the case. In general, students expressed appreciation for the podcasts as just one more pedagogical method for assisting them in isolating the most important information of a course:

"I think that having the podcasts available is a great way to follow up on a course. Often times I am slightly overwhelmed with all the information I bring home from each 2-hour class session and the podcasts are right there for me to cover anything I missed and to develop anything that I may have been unclear on."

– Communication Studies 101 (Public Speech) Student, Spring 2006

Remember, no matter how exciting and engaging you think you might be as a lecturer, studies have shown that human attention spans are much shorter than most instructors would desire. In the case of Communication Studies courses at Cal Poly, podcasting was an excellent way for the instructor to lead by example.

"I feel like this is a great additive to the course because sometimes just posting things on Blackboard can be easily overlooked or misinterpreted as to what is of major importance, but when you can hear the person actually saying it, you know what is important. Plus, it's pretty fun."

- Communication Studies 126 (Argument & Advocacy) Student, Fall 2006

Clearly, drawing from this testimonial evidence and classroom performance, the authors found that podcasting can actually result in the polar opposite of anxiety increase and information overload. Due to the opportunity to obtain more personalized information when they were most receptive and less vulnerable or less intimidated, students tended to become much more comfortable and relaxed (see also Myth #4). These results continue to be supported through the authors' observations of in-class and online assignment tasks, as well as Blackboard access data. The technocentric approach (McLuhan, 1960) increases the instructors approachability and credibility perception and a trust-based student-teacher relationship is established through the tone and timing of the additional message provided via podcasting, creating a win-win situation.

MYTH #5: PODCASTING FOSTERS THE CONTINENTAL DIVIDE OF MAC VS. WINDOWS: EACH STUDENT MUST OWN AN IPOD

Initially, the authors were captivated by the convenience aspect of the “lecture on the go” format. However, this proved to be one of the biggest misconceptions! As it turned out, the portability factor was miniscule. Overwhelming feedback from the students revealed that either 1) fewer of our students owned iPods than we had originally thought or; 2) most of the students felt that the entertainment functionality of the device would be jeopardized if course content would find a home among musical/video diversion. Oddly enough, the majority of students downloaded the podcasts to either their desktop computers or their laptops but did not generally transfer them to their iPods. A large number of students questioned why they would possibly want to sync the podcasts to their iPods and mix business with pleasure.

This was especially true of students who owned an iPod shuffle, where the introduction of a podcast is more random and cannot be controlled as easily as on a regular iPod. Understandably, jogging on the beach to upbeat “exercise music” and hearing the voice of your instructor explaining the next class assignment is not generally a welcome intrusion into the private sphere of most students. In general, the redefined workspace was not away from a “work-designated zone” in the students’ mind.

“I did it [synced the podcasts] and it would come on and I would say to myself, ‘What the heck is this?’ and then I would remember. It was quite funny!”
- Communication Studies 101 (Public Speech) Student, Spring 2007

The positive consequence of this approach is that the students did not confuse knowledge sharing with “infotainment.” The fact that students actually label the content as inspirational, clarifying, and even outright valuable, yet differentiate that there is indeed a time and a space to process it at their discretion, can hardly be viewed as a shortcoming.

Due to the overwhelming monopoly that the Apple iPod currently holds as the #1 MP3 player on the market, many students were under the misconception that you could only listen to podcasts from an Apple iPod or a Macintosh computer. Students enthusiastically discovered the opportunity that the platform-independent iTunes software afforded them as a free download. Many of the students seemed thrilled that this avenue of exploration was now available to them regardless of their selected computer platform. One Windows user expressed this revelation through the following survey comment:

“It is a great tool [iTunes]. Before this class I had never heard of podcasting, so it opened up the whole world of podcasting to me. I am glad that I have discovered it through a Cal Poly course.”
- Communication Studies 126 (Argument & Advocacy) Student, Fall 2006

Leaping from Toy Box to Tool Chest: Podcasting Pedagogy that Connects Your Students' Digital DNA to Learning Outcomes**APPLICATION**

In the hype-based era of “American Idol,” being quick to judge an auditory performance, it was important to consider and differentiate between form and function. While reality television provides yet another competing format for the student’s delusional capacity to judge credibility and quality, it is important to consider that there should not be a difference between a meaningful and an interesting message that can be conveyed. Students know what they like, but they don’t know why they like it; therefore, the decision to cater to their short attention spans with applicable sound effect snippets was established.

Various projects were undertaken to explore applied learning concepts, ranging from 1) establishing ground rules and policies embedded with a technological learning curve, via 2) educational playfulness and 3) goal-oriented motivational sequences -- just to name a representative sample.

PODCASTING PEDAGOGICAL CONCEPTS

To listen to the podcasts discussed below, please visit:
<http://www.calpoly.edu/~mmehl/podcasts/podcasts.html>

PREAMBLE: TESTING... TESTING... TESTING... PODCAST

One crucial “test-phase” was to establish an exposure to the new forum while considering some flexibility in the learning curve for the student participants. At the outset students were provided with text tutorials and video instruction within Blackboard to aid them in properly downloading and installing iTunes onto their personal computers. This reduced the amount of campus staff required to support the pilot since, for the most part, students were able to prepare their computers for podcasting on their own without additional assistance. To establish both familiarity and lecture content reinforcement of the syllabus, the initial project was created as a status quo orientation with added value. Initially, two podcasts were established to create an understanding of the formal and proper utilization of e-mail correspondence entitled “E-mehl” (a play on the instructor’s last name). As a feedback mechanism, the students were solicited to reflect the content of this podcast in an appropriately structured e-mail that was sent to the instructor.

To verify that both audio and text file downloading savvy had been established, the students were additionally required to access a second podcast. The second podcast reinforced the “code of conduct” guidelines, with its content available as both an Americans with Disabilities Act (ADA) compliant text file and as a broadcast. As feedback, students were required to print out this one-page text document and initial it in various spots as well as date and sign it as evidence to syllabus comprehension. This “contract” was due to the instructor by the second class meeting. Upon completion of both deadline-oriented tasks, the instructor had assurance that students were ready and prepared to use this tool confidently and reliably. In the process of the first two podcasts, kinks were worked out such as the students’ confusion over the collapsing arrow within iTunes (which permits one to attain more than one podcast and ADA compliant text file at a time.)

Cal Poly instructors intentionally did not utilize the podcasts’ functionality to “auto-update” material, but opted instead to use the course’s Blackboard online portal. By utilizing Blackboard, instructors were able to clearly control the exact time that information would become available to the students. However, upon reflection the instructors decided that if they were to offer a weekly lecture podcast, the iTunes subscription tool would be the easiest way to regularly implement downloads. The use of Blackboard as the conduit for the podcasts also allowed Cal Poly pilot faculty to make use of Blackboard’s Course Statistics tool, which provided data on the peaks and valleys of student podcast usage. Through the testing phase the instructors learned the limitations of the podcasting server to restrict accessibility of uploaded data and the necessity to control when students attain, at least for the first time, the desired information. The pilot clearly demonstrated that it is indeed important to have a learning phase for both the users as well as the providers.

APPLICATION #1: GOTCHA PODCAST

Considering that an introductory communication class virtually offers itself to the exploratory nature of human interaction, the “Gotcha!” project was the first application of “Listen, Laugh and Learn.” Students were given a specific task to truly interact with their peers. After they had been charged with the content of a podcast that triggered an elimination game, students had to apply class concepts whenever and wherever they would see their peers outside of the classroom. In the formal online survey, students repeatedly pointed towards this experience as one of the most enjoyable and educational tasks of the class. This project has both informality and competitiveness as an underlining pedagogical concept, which the instructor believes succeeded due to both of these elements. Student testimonials were unsolicited and enthusiastic on numerous occasions. In this case, the need to be ADA compliant, with the addition of the PDF text files, transformed this idea into a tangible and focused application.

APPLICATION #2: CARPE DIEM PODCAST

To diversify the portfolio of projects, the instructor specifically used podcasting as a trigger-mechanism to bring out the best in student learning. The fundamental guideline for this project stemmed from an elaborate scheme in a Critical Thinking and Argumentation course to minimize excuses and maximize results. Intending to apply once again course content within the course structure, the main obstacle was to overcome student apathy towards having to invest time and effort on an appropriate (while potentially interesting) instructor-selected and imposed subject matter. Consequently, a complex yet simple self-

selected topic proposal format was established. While this system had been in place and fine-tuned over the duration of roughly three years of teaching the course, the podcasting tool added two new dimensions: inspiration and motivation. Again, the need to specifically type up the ADA compliant text document forced the instructor to be both clear and creative, instead of merely “winging” the intended message.

In this course, students provided midterm speeches on instructor-screened, but self-selected, current policy-based topics. Within the classroom they had two options to succeed with this topic by transitioning from proposal to debate topic. They could solicit their peers’ votes (only half of the course presents their speeches on one day), or they could vote for the topic they liked best. Consequently, students could not defer to the lack of interest or impact they have on the final course project. To illustrate this opportunity and generate the needed momentum, the podcast was especially created to trigger competitiveness, comprehension, and appeal to pride. Considering the dynamics of the novelty and timeliness of this project, students benefited from the pedagogical principles of “persuasion” in action while learning about the principles behind it. Upon completion of this task students will actually know what they like, but they will also know why they like it.

As an instructor, from a purely selfish perspective, recording this assignment as a podcast was advantageous in many ways. First, the podcast generated student excitement, allowing for the questions during class time to be more focused upon the logistics of this particular assignment; second, since this is a course that is taught every quarter, the recorded version allowed for an optimum “performance,” releasing the instructor from the task of having to be “on” every quarter when presenting the material. Let’s face it, there are some days as an instructor you definitely need to exhibit passion to get your point across in class but the reality of staying up deep into the night to grade papers and prepare for class lectures the next day may cause a weariness that inhibits your enthusiasm! Although the authors would not suggest podcasting be implemented solely for such a reason of convenience, still, the ability to present a “fall-back” performance when passion is lacking can be a most-welcomed alternative for both you and your students.

APPLICATION #3: VINI, VIDI, VICI (CRITICAL ANALYSIS PROJECT WINNERS)

Fostering competition and pride is certainly a recipe for success and motivation. As students churned out interesting, applicable and thoughtful presentations, the podcast dangled various caveats in front of them. Students were videotaped during their class presentations and anticipated the winning presentations to be shared online. The duplicity of professional behavior in front of the camera and added pressure to perform with an “unbiased” source in the room created another foundation for potential excellence.

Students were required to provide a transcript of their speech to the instructor. This was another methodology to eliminate procrastination, maximize preparation, foster student responsibility, and fulfill the ADA text file requirement. However, all presentations were stylistically extemporaneous in nature. The manuscript came in handy as a way to practice in advance what the intended message was. Congruency between speech performance and transcript translated into confident presentations.

Technologically, Apple’s iMovie tool enabled the instructor to import the raw footage as a “magic iMovie.” This method minimized the instructor’s time investment with the tool’s ability to automatically delineate “chapters” based upon the start and stop time of each student’s corresponding presentation. Upon completion of the chapter divisions, the synergy of the Apple iLife products (iMovie and iDVD) provided a simple solution for freeing up hard drive space while saving the video presentations for posterity to a burned DVD. Finally, the audio track was extracted and placed in GarageBand to convert the video into audio-only performances.

The last project clearly indicates the progress the instructor went through, becoming increasingly comfortable with the provided tools. The autodidactic approach to push the learning curve further was an unanticipated, but welcomed lesson learned. Given the fundamentals, this technology can foster strong pedagogical principles while taking advantage of both its novelty and playful nature.

Lessons Learned

INSTRUCTIONAL METHODOLOGY & SOFTWARE TRAINING:

Since the primary educational goals and outcomes of this pilot concentrated on enhancing student learning, each instructor in the pilot was strongly encouraged to develop an innovative approach to podcasting that would specifically improve student learning outcomes in their discipline. It was soon quite obvious that the utilization of podcasting would greatly affect an instructor's proposed learning outcomes and instructional methods for a course. There was no place where the necessity of change was more apparent than in organizational structure. Those instructors who wished to be more creative, engaging, and inspiring in their approach to podcasts were required, by their mere intent of remaining pedagogically sound, to be more organized and structured in their methods.

The pilot faculty were trained in creating podcasts with GarageBand 3 for the Macintosh, uploading them to a Mac OS X server, and posting the link in Blackboard. They were also provided with digital recording devices if they elected to record their lectures "live." However, the pilot faculty were strongly encouraged to experiment with creating podcasts that would serve as a learning supplement to the classroom experience rather than just providing a replication of their lectures. The choice of GarageBand as the software tool for the pilot was primarily based upon its ease of use and low learning curve for the faculty; however, the results of a student survey at the end of the pilot revealed that the "bells and whistles" of music jingles and sound effects already inherent in this software also added to student enjoyment. When surveyed about their favorite podcasts, students generally selected the podcasts that included auditory treats:

"I have to say I preferred 'GOTCHA!' because it really kept me interested in what the assignment was about and made me want to keep listening to find out more. It held my attention. I'm not going to lie, it's hard in any dorm room to stay focused for too long."
– Communication Studies 102 (Principles of Communication) Student, Fall 2006

Even at the university level, such student responses serve to confirm the belief that in educational circumstances where there is some creativity and fun, learning naturally takes place.

For the most part, students embraced the technology without the need for intensive faculty or instructional technologist support. The faculty were given both written and video instruction to post within Blackboard for their students, which instructed them in the steps for downloading and syncing the posted podcasts by means of the iTunes software.

FORMAL FEEDBACK, SURVEY & QUANTITATIVE DATA:

A Blackboard survey was placed in three of Professor Mehl's Communication Studies courses to determine students' reaction to the use of podcasts and to ascertain its effect upon teaching and learning. The survey consisted of a 10-question survey administered the week before final exams to ten freshman-level Communication Studies classes from Spring 2006 through Spring 2007 (N=188). The results of the survey are listed in the table below.

Limitations

There were several limitations encountered in this project. One unforeseen limitation was purely technological: In setting up the podcast pilot structure, the technical staff forgot about the problems that would be incurred by the campus firewall. Indeed, a firewall is a necessary device for keeping intruders out of the campus network; however, it may also cause unintentional problems for students attempting to access the podcasts from off campus or, in our case, from within campus dormitories. Once the problem was discovered (thanks to the implementation of the testing phase where the first podcast did not contain critical information for the students), the campus network staff were able to open up the proper ports and solve the access problem caused by the firewall.

Blackboard Podcasting Student Surveys: Spring 2006 – Spring 2007		
1. What type of Internet connection do you have?		
	No. of Students (N=188)	Percentage
Dial-up modem	1	0.5%
Cable connection (e.g., Charter Communications)	87	46.3%
DSL connection	42	22.3%
I don't know what type of Internet connection I have	58	30.9%
2. From what location did you download the podcasts?		
From an on-campus computer lab	2	1.1%
From an on-campus dormitory room	107	56.9%
From an on-campus wireless laptop connection	4	2.1%
From an off-campus location	75	39.9%
3. Which computer software did you use to listen to the podcasts?		
iTunes for the PC	150	79.8%
iTunes for the Macintosh	34	18.1%
Both	4	2.1%
Other	0	0.0%
4. After the firewall problem was fixed, did you have any problems accessing the podcasts?		
Yes	36	19.1%
No	152	80.9%
5. Do you own an Apple™ iPod?		
Yes	96	51.1%
No	92	48.9%
6. Did you sync the podcasts to your iPod or other MP3 player?		
Yes	40	21.3%
No	148	78.7%
7. Did you find the instructions on how to subscribe to the podcasts to be accurate and easy to follow?		
Yes	167	88.8%
No	21	11.2%
8. Did you generally listen to podcasts more than once?		
Yes	85	45.2%
No	103	54.8%
9. Did you enjoy the enhancement of sound effects and music in the podcasts?		
Yes, I enjoyed them!	153	81.42%
No, I felt the sound effects and/or music was distracting!	35	18.6%
10. Did you also download and review the PDF transcripts of the podcasts?		
Always	98	52.1%
Occasionally	73	38.8%
Never	17	9.1%

The accessibility of the podcasts was confined to the intended student population via Blackboard authentication of the podcasting subscription links. Students were required to download and install iTunes software on their individual personal computers so that the "itpc://" protocol of the podcasting link immediately executed a subscription to the instructor's podcast. Section 508 accessibility compliance mandates were a concern for the university and so the pilot faculty were required to upload a PDF transcription for download through iTunes as well. Clearly, this was an extra burden for the pilot faculty and at this point the university has not determined an easy and cost-effective way to meet this state- and federally-mandated requirement. However, student comments reflected that the PDF transcriptions served as an additional pedagogical tool for clarification of the audio content:

"I liked how a printable script was provided in case we wanted to read along or we didn't hear something clearly stated in the podcast message. His [the instructor's] words were clear and combined a lot of helpful and interesting information."

– Communication Studies 101 (Public Speech) Student, Spring 2006

Although there were limitations encountered in this project, the ADA requirements for transcription that had initially seemed to be limiting for the faculty actually proved to be a helpful aid in containment and organization for the more creative souls. The inherent message derived from this experience resulted in an understanding among the faculty that "the more creative you wish to be with the tool, the more organized you must be before you have even begun." Both creative (right brain) thinkers and analytical (left brain) thinkers were able to benefit from this principal, resulting in a more "whole brain" approach to learning, which in the long run more effectively addressed a campus goal of providing multiple learning styles for students.

Conclusion

There is no such thing as a "magic bullet." Obviously, everyone is quite familiar with the old adage of something sounding "too good to be true" so by no means would the authors try to convince you that this process of competence over convenience is painless. Technology has made progress and continues to provide tools that permit us to expand upon the existing lecturing and pedagogical boundaries. From chalkboards, photographs, audio and video recorders, film/slide projectors, overhead slides via television sets, Laser Disks™, VCR's, and DVD's™ to cabled, satellite, and networked computers, educators have continued to seek convenient aids to improve the teaching forum. However, through this pilot, it was determined that podcasting is not merely an auditory or visual aid (in the case of enhanced podcasting) and the functionality of the dynamic trigger it can add to one's teaching is quite dependent upon the user's approach.

The tri-factor of collaboration, coordination, and communication is essential to the learning process and podcasting adds a persuasive and valuable dimension. Indeed, podcasting is both an entertainment device and an academic appliance, fostering knowledge sharing in part due to its dynamism and creating competence through expediency.

- a. *Properly perceived*: MP3 devices can enhance an instructor's credibility and create an inviting and thriving classroom environment.
- b. *Properly planned*: Podcasting can actually increase the attendance and the enthusiasm of students in the classroom.
- c. *Properly applied*: Lecture content can be dynamic, timely and enjoyable while focusing on educational value
- d. *Properly distributed*: Students do not have to break the bank and purchase the umpteenth-and-first iPod to be engaged, nor do they even need to own an Apple hardware product.
- e. *Properly reviewed*: Function and form challenge one another and provide a more advanced, more structured, and ultimately more enjoyable workspace for both students and instructors. Ultimately, podcasting levels the playing field to learning with, from and through one another.

Clearly, from a communications and information technology perspective, we are rapidly transitioning

from the simple oratory mentorship tradition to complex, dynamic, and technologically enhanced knowledge-sharing culture(s). Can you recall the last time you wrote a physical letter to a peer to inquire for collaboration? Neither can we. Actually, considering the authors' co-writing skills were a combination of physical and virtual meetings, we both "practiced what we preached" – knowledge sharing through technological tools. Numerous times the authors could have benefited from actually podcasting their thoughts to one another to improve efficiency and use our own advice. However, the authors found that sometimes even we ended up falling hostage to convenience over competence.

The authors are optimistic about the pedagogical implications of podcasting. Yes, there were misconceptions upon diving in to explore this new frontier but at the end of the journey our initial intuition was confirmed by the experience: in matters of teaching one must always strive for the ultimate goal – competence over convenience. Granted, the authors have their biases and ideologies; however, they are more confident now about their perspective of the experts' sphere since the premise was based upon solid evaluation principles: teaching goals and learning outcomes.

If educators are looking at the key pedagogical goal, which is to provide learners with the tools they need to succeed, inspire them in the process, and foster a trust-based relationship, the authors will claim that, in this case, podcasting is not a gizmo, but definitely an instrument worthy of utilization to its full potential as an edifying mentor inside and outside of the classroom.

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