Making the Shift from Live to Virtual Lectures: Experiences of an Adjunct Professor of Business

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Abstract: There are many practices that a professor must modify when making the transition from an on-ground to an online classroom environment. Depending on the technologies used, modifications may be needed to pedagogical practices. One that is particularly challenging is when moving from live, physical lectures to live, archived, online lectures. Not only does the live audience need to understand the material, but material must be presented in such a way so that students downloading the archive at a later time can gain the same understanding. Compounding this pedagogical challenge are the very real concerns of managing the online environment with all of its challenges. This paper presents background on other studies of online lecture pedagogy as well as a case study of one instructor's experiences.

Introduction

When an instructor transitions from the face-to-face to the online classroom environment there are many things that will be different. One thing that is the most different, and therefore potentially the most challenging, is the online lecture experience. To understand this challenge, it is important to consider how an online learning environment is designed, how the online environment approximates the physical environment, how the lectures can actually be delivered, and the differences in student outcomes in physical versus virtual lecture environments. Complimenting the researched design and implementation factors of the online lecture will be the field experience of an adjunct professor of Business who started teaching face-to-face and made the transition to teaching online.

The Online Environment and Design

An online professor's experience lecturing online usually begins before the professor even knows what class they will be teaching, perhaps even before they are employed by the institution at which they are going to teach. The environmental variables in an online program are established in the design phase of the project. These design features can be divided into four categories; presentation, activities, communication, and administration (Brusilovsky & Miller, 2001).

It is the presentation category that most directly impacts the online professor's lecture format. Not only does available technology enable or limit a professor's options, but the online environment itself demands certain changes to adequately address the learning needs of students in the online environment. At its most basic stage, presentation may consist of posting static documents to the web that students will either download or read online. While this is an information delivery system, it is not what would generally be considered a lecture. In the lecture genre, there is text, audio, and video. A system may use any of these features individually or they may use some combination of two or more. To bridge the gap between synchronous and asynchronous learning environments, online lectures can be archived for students to access at a time of their choosing. As an example of combining presentation formats, asynchronous learning networks (ALNs) can mix audio with material written during the lecture to approximate traditional communication (Latchman & Latchman, 2001).

One feature of delivery design that will significantly impact a professor is whether or not students can see the professor. While for many people online lecture brings about an image of students watching a lecture via video this is not always the case, and for good reason. Streaming video over the internet demands high speed network access and relatively new computer hardware, whereas an audio stream is much more manageable for students with slower connections or older computers (Maher, 1999). While students' technology access, or lack thereof, more than justifies the use of audio lectures versus video, it does complicate the job of the professor.

Best Practices

As is often the case with an emerging field, the best practices for online education are still being established. Parker, 2004, identified four main characteristics of "...scholarly approach to online teaching and learning," those being, "1) providing clear statements of educational goals; 2) sustaining the institutional commitment to support learners; and 3) engaging in a collaborative process of discovery, which contributed to 4) improving the teaching and learning environment."

As a practical approach to establishing best practices for an institution, the business practice of benchmarking has been successfully implemented (Billings, Connors, and Skiba, 2001). By utilizing a benchmarking model, institutions can better position themselves to study and adopt emerging best practices across the online education field. While a thorough study of online education practice is beyond the scope of this paper, its continued development, based on a solid foundation and utilizing benchmark techniques is critical to the success of the field.

A Case Study

With these environmental variables in mind, what is the experience likely to be for a professor transitioning to an online format and more importantly how do student outcomes in the online environment relate to those of students in a traditional classroom?

For many instructors, the interaction of a traditional classroom is a rewarding experience and moving to an online environment brings the threat of losing this aspect of teaching (McConnel & Schoenfeld-Tachner, 2000). McConnel and Schoenfeld-Tachner also offer a good selection of the issues facing a new online instructor, listing, "fear, ignorance, time constraints, bureaucratic red tape, faculty-student interactions, academic rigor..." as common concerns when a professor new to the online environment has to develop a course. From experience, it is accurate to say that many if not most of the concerns experienced by a new online professor developing a class also impact a new online professor simply teaching their first class. So, from this hesitant beginning, how do instructors find the experience of actually teaching their first online class?

A study by Conrad, 2004, revealed that new online instructors with traditional teaching experience based their initial online work on their face-to-face experiences and that they did not have a good understanding of the interaction involved in online learning environments. In Conrad's study, there was considerable attention paid to the lack of being seen by students, a phenomenon of the audio versus video medium online. While the concerns of the instructors in the study varied, many found it difficult to lose the physical statements they could make in the classroom with their choice of attire, physical gestures, or sight of the students during class. At the same time, however, the instructors mentioned that not being able to see students also helped to prevent any judgments based on a student's appearance, and that their interest in the class was actually more evident online than in person because there was not the danger of misleading physical cues. Perhaps the most important point that can be seen from the study is that instructors' primary concerns about the online environment was in relation to course content, "how much and in what manner they were able to effectively transmit appropriate amounts of content to their learners" (Conrad, 2004).

Student Results

The final question in examining the online environment and instructors' interaction with it before moving to the actual experiences of one professor is that of quality. How do student results online compare with those of traditional students?

One study that examined student exam scores before and after a move to an online format indicated "...no significant impact on final learning outcomes..." (Crisp, 2003). Parker and Gemino, 2001, found similar results in their study, stating that, "no significant difference in class size or average grade on final was found between groups..." While the results for individual classes and programs will obviously vary depending on the course design and the quality of instruction, there is no definitive reason for a class to suffer a decline in learning outcomes with a move to an online format.

The Author's Experience

The author had approximately two years of experience teaching Business courses as an adjunct professor in the face-to-face format and two asynchronous online classes behind him before teaching his first online course that included synchronous live lecture times.

The class's format will be explained, and the challenges and successes of the experience will be related

The course in question was a junior level Finance class in an undergraduate Business curriculum. It was a survey course, covering a wide variety of topics at a rapid pace; the length of each full semester course was only 5 ½ weeks. Students were predominately non-traditional students with full-time work commitments, as is the case with the majority of online students. Communication during the course was accomplished via e-mail, discussion board assignments, one hour a week of text chat office hour time, and two one-hour live lecture sessions each week which were archived for students to access at any time.

There were some challenges to lecturing in the synchronous environment from the beginning. Training did a very good job of demonstrating the lecture environment, but did not devote a great deal of time to showing new instructors how to administrate the system when conducting their own lectures. This missing information was compounded by the failure of the online classroom environment to provide working help files. While there were links to instructor's guides for the lecture environment, the links were nonfunctional for the entire class. This environment put an obvious handicap on a new instructor, and it is recommended that anyone entering into online lecturing for the first time pay particular attention to the quality of training and documentation available to assist them in navigating the online environment.

Once inside the virtual lecture hall, the instructor broadcast audio out and also had access to a whiteboard to use during lecture. It was possible to post PowerPoint slides during lecture, but given the lack of available training material this feature was not utilized. Students who were attending the lecture live could interact with the instructor via text chat, but they did not have the ability to broadcast audio.

The audio out, text in design of the classroom had good points and bad points for instruction. It was very good for students to have the ability to participate in live time. This was used both for class participation with instructor-initiated interactions and also as a medium for students to ask questions of the instructor when they failed to completely understand the material. In this way, it was very similar to the on-ground experience of students raising their hands or responding to questions from the instructor. What was very much unlike the on-ground experience, however, was that a student's comments were immediately broadcast to the class. To draw a parallel with on-ground courses, it was as if all the students were free to just blurt out questions or comments out loud at any time during the lecture. This was not any reflection on the students' behavior, it was just a function of the medium that there was no way for them to raise their hands and be recognized at a convenient time; the text chat was their way of entering into live interaction.

The main effect of the text in feature of the live lecture was to require the instructor to multi-task. It was critical for the instructor to note that he had seen a question and would get back to it while not losing track of the subject at hand. Often, a question would relate

to something that was already scheduled for the session and would need to be deferred until later. It was important to always do this tactfully; without a positive response students may stop participating which would be detrimental to the class.

As a final note on the conduct of lectures, it was important to encourage student participation at every opportunity. This interaction made the sessions much more helpful to students who were not able to access the live session and instead had to rely on the archives. An active discussion of material with students in the class made the material easier to follow than just a direct lecture from start to finish.

The one major challenge to lecturing online in the environment being examined was the technical difficulties caused by limited bandwidth on the server. In a rapidly growing institution it is very challenging to keep server resources up to date with demand. As the semester progressed, problems requiring students and the instructor to manually refresh their connections continued to get worse. Every time this happened, there was a delay in getting back online and back to work which disrupted the class. To draw a parallel with a physical classroom, it would be like the lights going off and a loud buzzer sounding for several seconds so that nobody in the class could see or hear what was going on.

As an experience, the biggest factor in moving to an online format for the author was not the lack of direct interaction with students but rather the interruptions that were a part of the environment. Between managing the text in from students and being interrupted by network problems a one hour class session was lucky to see forty minutes of actual lecture and discussion. This obviously strained the instructor's ability to keep up with the course material. The answer was to move directly to explaining material that corresponded to assignments and then address questions and other material as time allowed. It was far from an ideal solution, but students did acquire the necessary skills to successfully complete the class.

Recommendations

- ◆ Practice in the instructional environment multiple information inputs and the practice of lecturing in the online environment is very demanding
- ◆ Carefully evaluate an institution's practices does their schedule and philosophy work well with yours?
- ◆ Prepare material in advance that can be pasted into the live discussion area it will be much faster than creating content on an online whiteboard
- ◆ Schedule more time than you think you'll need for correspondence students can be very demanding via e-mail
- ♦ Set some dedicated time to work each and every day you never know when a server failure will interrupt the class schedule

Conclusion

It is likely that every instructor will have a slightly different reaction to their first online lecture experiences. This will in part rely on the system in place and what kind of

technical capabilities or difficulties are present. In the author's experience, the technical difficulties experienced in the classroom were significant enough that they overshadowed issues such as not being able to see the students and not being able to use hand gestures. With the growth of online education it is likely that more and more professors will be required at some point in their career to lecture online, so an understanding of the opportunities and challenges is important. Most of all, each new online instructor will need to follow their own experience to find what works for them and their students.

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