

INTEGRATING PODCASTS INTO THE BUSINESS CLASSROOM

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ABSTRACT

Podcasting is an emerging technology that can help faculty provide instructional materials for business classes. Many students already access podcasts with MP3 players or computers. This article examines how faculty can effectively incorporate podcasts into the College of Business classroom to enhance student learning and engagement. The authors review both the technological and pedagogic literature and issues involved in developing and using podcasts. The goal is to develop class materials to supplement or replace traditional handouts, Internet content or instructional time. The article offers practical information based on the authors' experiences and student feedback from developing and using podcasts in upper division Accounting and Finance classes.

Effectively implementing podcasts involves a wide range of issues. Faculty need to consider the legal issues involved in creating content, referencing or using podcasts created by others. The technology infrastructure is also important. Both faculty and students need to understand the alternatives available to both create and access Podcasts. This article explores the basic technology needed to create and publish either audio or video podcasts. It also provides suggestions for the type of content that lends itself to Podcasting. The authors developed Podcasts incorporating both qualitative and quantitative material suggesting the technology can be incorporated into a wide variety of classes. The article also explores the availability of third-party content. This article provides practical suggestions about how to incorporate Podcasts based on classroom experiences and the literature of instructional design and the use of technology.

INTRODUCTION

Technology and its adoption by higher education faculty are examined in several studies. The focus of many articles is the use of the Internet to provide course supplements and distance education. Although this literature does not specifically address the use of podcasts, it does provide a framework for those considering adoption of a new technology. Some recent studies have reviewed the use of Podcasts in the sciences, journalism and other disciplines. This paper takes a unique look at podcasts in College of Business classes. Like any new technique, the primary goal of adoption should be to enhance the learning experience.

Adopting new technology should be an integral part of the curricular design process. Once adopted, faculty should incorporate a feedback mechanism to evaluate whether or not an assignment or technology

is achieving its goals. Podcasts offer an additional technology College of Business faculty can incorporate to enhance learning. This paper examines the relevant literature and provides information on the steps needed to develop and use podcasts. This paper reviews the literature as it relates to the technology and provides a review of the pedagogic and technology issues faculty should consider before adopting podcasts. This study also reviews the experiences of the authors incorporating podcasts into a finance and accounting classes. Our experiences indicate the usefulness of podcasts to provide both qualitative and quantitative content.

LITERATURE REVIEW

One important issue faculty need to recognize is how technology affects students' expectations and perceptions. Proserpio and Gioia (2007) suggest that faculty need to adapt to better meet the needs of a virtual generation familiar with various technologies. Technology can compliment student learning styles. Their article does not specifically address podcasting but it does stress the important of using technology to enhance the classroom experience.

Distance education initiatives and use of the Internet in the classroom provide insight into curricular design strategies and issues relevant to the use of podcasts. Rungtusanathan, Ellram, Siferd and Salvik (2004) provide a basic framework for faculty to consider when they develop Internet-based distance education. They review the importance of examining content, delivery and learning. All these issues are also relevant to podcasting used to supplement the traditional classroom or distance education. The authors also develop a basic typology to describe the ways in which technology is used in higher education. Podcasts would seem appropriate only for the authors' overview model in which material is delivered without opportunities for feedback. Podcast design can include opportunities for feedback, student participation and publishing and collaboration. Faculty need to carefully consider the type of class they want to deliver before developing podcasts and podcast materials.

Faculty in many disciplines are integrating podcasts into the traditional and distance education classroom. Some see "m-learning" for mobile learning as part of the evolutionary process of using technology to deliver class content. (Lee and Chan, November 2007) As the technology emerges, faculty and students are developing ways to incorporate and implement content. Copley (2007) reviews his experiences using podcasts in the marine sciences curriculum. Students completing an online survey regarding their use of the technology reported positive experiences. Students reported several positive learning outcomes. Students felt podcasts helped them better prepare for assessments. Podcasts also helped students in the more traditional lecture setting because they could engage in the class instead of taking notes. Students also used podcasts learn more complex material at their own pace.

Gay, Price and Searle and Gay, Price, Searle and Brissenden (2006) evaluate the use of podcasts in the discipline of astronomy. In a series of two articles, the authors provide an overview of both academic and public use of podcasts. The authors also assess the impact of the podcast by surveying listeners. They also conduct a series of information assessments including interviews. The authors provide insight into the production process for their podcasts. Although their target audience is not strictly academic, the information indicates that podcasts can be effective way to communicate scientific information.

Other studies also indicate the usefulness of this emerging technology. Crawford (2007) suggests that podcasts are a useful tool to enhance the learning environment. Beldearrain (2006) reviews the benefits of several technologies including podcasts. The author believes podcasts will impact both delivery of content and student engagement. Podcasting is an asynchronous activity which means students are not listening and interacting in real time. Podcasts provide a way for students to review audio and video content. Students can also collaborate to create content to enhance learning. The author is careful to indicate that technology should be fully incorporated into course design rather than included just because it is available.

Huntsberger and Stavitsky (2007) find podcasts a useful technology in the journalism classroom. Student response to use of the technology in an introductory journalism class was positive. Their survey of students also provided information on how the podcasts were used. Podcasts were used not only during formal study sessions but also while students were engaged in other activities. Anecdotal evidence suggests the traditional class lectures and discussions were enhanced by podcast use. Some students also thought podcasts could replace the textbook material.

Podcasts represent an additional technology faculty can incorporate into their curricular design. A growing literature suggests students and faculty are finding ways to use podcasts in both the traditional and distance education classroom. As with most technologies and course materials, faculty should consider the goal of the assignment or supplement. Assessing podcast use includes reviewing faculty and student perceptions.

IMPLEMENTING PODCASTS

There are several steps involved in developing and implementing podcasts. The curricular design issues applicable to any course content, technology or supplement apply to podcasts. The mere availability of the technology is not justification for its use. Podcasts should be considered based on the desired goals and outcomes for the class. Aside from the technical and other issues involved in creating or using a podcast, faculty need to carefully evaluate whether or not the content or activity will enhance learning. Faculty should also consider whether or not students have the software and hardware needed to use the technology and how those requirements will be communicated and supported. Podcasts can be played not only on an MP3 player but also on laptop and desktop computers.

There are many kinds and formats for podcasts which will be discussed separately below. Faculty can create podcasts or use third-party podcasts from industry, publications, textbooks or other sources. Copyright and other legal issues are relevant regardless of whether content is self-published or downloaded from a third-party. Faculty should make sure they receive permissions for copyrighted material. It is also important to review the permissions requirements of any third-party sites faculty might access to determine if there are guidelines for linking or using content.

Technology and the technology infrastructure are important issues. Faculty and students need basic equipment and software to create, access and use podcasts. There are different technology requirements for audio and video podcasts. The minimum technology requirements for an audio podcast include a microphone and software for recording content and creating an MP3 or other file. Examples of software include Audacity which is available for free from the Internet or Garageband for the Apple. Based on the authors' experiences creating audio content, it is important for faculty to have access to a campus technology support center. Although individuals could learn to create and publish podcasts without assistance, the existence of a campus technology infrastructure helps the process. Basic assistance includes workshops, on-call help and access to technical staff for the initial stages of creating, recording and publishing.

Video podcasts allow faculty the opportunity to incorporate visual as well as audio information. One alternative is for faculty to videotape class lectures or modules to replace or supplement traditional lectures. Design and production issues are important for faculty to consider if they decide to provide video content via podcasts. One issue is the size of the screen on the traditional MP3 device. The experience of the authors suggests that students should be encouraged to view video on their laptop or desktop.

Video podcasts describe any podcast that uses visual material. For example, faculty might use a video of screen shots or slides with a voice over narration to communicate content, help students navigate the

Internet or provide instruction on the use of technology. For example, one of the authors used video podcasts to help students develop the skills they might need to better collaborate as they completed group projects using the Internet, spreadsheets and word processing software. Faculty need to carefully consider whether or not the software they use will allow them to easily publish in the MP3 format. This would typically require the technical assistance of the campus support staff. For example, one of the authors created video content using Snag-It which required the processing at the computer center to create files in the MP3 format.

Once a faculty member creates a podcast there are several ways to publish the material and provide it to the class. The authors used iTunesU to publish podcasts. This method was supported by the technology staff who arranged links to the Apple site and presented workshops on uploading and managing course content. The iTunes software is free to students to download and is an interface many students are already familiar with. Other alternatives are available to publish podcasts. Faculty can publish the MP3 files to their class Internet site for students who without access to iTunes. This method was useful for the few students enrolled in the class who relied on the lab for computer access. The labs did not install iTunes on those computers and students listened or viewed podcasts by downloading an MP3 file. Another alternative is to incorporate an RSS feed so that students receive access to the podcast as soon as it is published. The advantage of this method is that students do not have visit iTunes or the class Internet site but instead receive access “pushed” to their computer which is available once they log on to the Internet.

CURRICULAR DESIGN OF PODCAST CONTENT

Faculty can use either self-published or third-party podcasts. Issues related to curricular design and use of self-published podcasts are discussed in the next section. This section reviews the use and availability of third-party podcasts. Table 1 reviews some of the published podcasts available on the Internet for the disciplines of finance and accounting. The sites listed in the table are from publications and business that provide a variety of content in business, accounting and finance. Another source of podcasts is iTunes which includes content from professors and universities. It is important for faculty to consider content within the framework of basic curricular design issues.

The first step is to determine the goal of the podcast, the timing of its use in class and whether or not it will be required or a supplement. It is also important to consider how to evaluate or assess students’ understanding of the content. For example, students might be tested using traditional methods or it could form the basis of online or in-class discussion. Content might also be used to help students develop a written or multi-media class project. As faculty consider the issues of curricular design, they may decide traditional handouts are more appropriate.

Faculty who create their own content should carefully script and record their podcast. Production values and quality are important so faculty need to proof their audio and video presentations and be willing to make changes if there are problems. Another alternative is to create and publish material first to a small focus group of past or present students who are willing to provide feedback. Colleagues and other faculty can also be an important source of feedback. One benefit of including colleagues is that faculty can then use their insights to create content that can be used in several classes over time. If podcasts cover basic information similar to a course supplement used in multiple sections or several classes over time, the work of one faculty member can help students in various sections or classes.

TABLE 1: THIRD-PARTY PODCASTS IN FINANCE AND ACCOUNTING*

Publication	URL
Business Week Podcasts	http://www.businessweek.com/search/podcasting.htm
CFA Institute	http://www.cfawebcasts.org/publishing/article.cfm?article_id=19

CFA Investor Webcasts	http://www.cfainstitute.org/aboutus/investors/webcasts.html
CNN Money Podcasts	http://money.cnn.com/services/podcasts/
cpapodcasts.com	http://www.cpapodcasts.com/
Deloitte: List of Podcasts	http://www.deloitte.com/dtt/search/0,1051,ste%253DSEARCH%2526lid%253D2,00.html
Deloitte: RSS Feeds	http://www.deloitte.com/dtt/leadership/0,1045,sid%253D107704,00.html#Feeds
Ernst and Young	http://webcast.ey.com/thoughtcenter/default.aspx
Federal Reserve Bank of Atlanta	http://www.frbatlanta.org/rss/podcast.cfm
Federal Reserve Bank of Dallas	http://dallasfed.org/podcasts/index.cfm
Financial Times	http://podcast.ft.com/
JPMorgan	http://www.jpmorgan.com/cm/Satellite?c=TS_Content&cid=1159317946354&pagename=jpmorgan%2Fts%2Fts_Content%2FGeneral
Kiplinger	http://www.kiplinger.com/podcasts/
McKinsey and Company: Corporate Finance	http://www.mckinseyquarterly.com/Corporate_Finance/
Price Waterhouse Coopers Financial Services	http://www.pwc.com/extweb/pwcpublishings.nsf/docid/C30FCC4191A8F43E852572AB0012C920
SmartMoney	http://www.smartmoney.com/rss/
StreetIQ.com: Lehman Brothers Bond Show	http://podcast.streetiq.com/streetiq?ChannelID=5405&GUID=4012774&Page=MediaViewer
The Wall Street Journal	http://online.wsj.com/public/page/podcast.html?mod=topnav_0_0002_public

*Some sites may require users to register. Others may have some content available only through a paid subscription.

It is important that faculty also consider the length of the podcast. It might be better to break content into small units students can master quickly. Another alternative is to cover an entire topic in one podcast. The authors tried to keep their recorded podcasts to around ten minutes in length which included an introductory overview of the topic and a conclusion or question. That decision was based on feedback from students after they listened to initial podcasts. Faculty who create a written script and practice their podcast at least once before recording it will be able to determine if the content fits the time limit.

Podcasts may seem to be a passive activity but there are a variety of methods faculty can use to engage students. Faculty should clearly communicate the objectives of the assignment. This can be accomplished by incorporating the goals and objectives into the text of the podcast or providing written or other supplemental material. For example, a podcast might begin with an overview stating what students should know, understand or accomplish by the end of the podcast. The podcast can end with questions or questions and answers related to the podcast. The end of the podcast is also an opportunity to let students know how the knowledge will be assessed. The podcast can be a self-contained study supplement with clear objectives, content and a study guide.

It is important to determine the objective of the podcast and the audience before starting the creation process. Faculty may find podcasts have benefits to their department or college beyond use as a classroom supplement. Podcasts can be used to help connect with alumni or future students.

Podcasts can be used to create and disseminate required or supplemental material. The purpose and use of the podcast should be clear to students. Podcasts can also be used to help students review or recap material covered in the traditional or distance education classroom. For example, students who attend a lecture of an executive visiting campus might be required to answer essay questions on a future test over the content. Students can find it helpful to use a podcast review the lecture as they study or hear material they might have missed.

Once faculty determine the objective of the podcast it is important to map the content back to the goals. The objective and content will determine whether or not a faculty member needs to create an audio or video podcast. There are several issues to consider when deciding on the medium. Qualitative information might include current events, summaries, lectures, guest presentations or other material. One issue is whether or not the qualitative material could be supported with an illustration or visual material. The trade off is that video podcasts are more difficult to create and can be hard to watch on the smaller screen of an MP3 device. Class material that refers to slides or spreadsheet is best presented using video.

Podcasts can also be used to encourage student interaction and collaboration. Although podcasts appear limited to passive viewing or listening, faculty can use the technology to enhance the collaborative process. One example is to design an assignment or activity that requires students to create and publish a podcast. Students might interview members of the business community on selected topics and bring the material back to class to share a real world perspective on issues and content. Students can also create tutorials on class material to help others learn content, skills or content. Podcasts can also be used as a technology-based oral report. Faculty who want students to create podcasts will need to be prepared to help them access the technology.

EXAMPLES OF PODCASTS IN COLLEGE OF BUSINESS FINANCE CLASSES

During the 2006-2007 one of the authors created a series of podcasts for a junior-level introductory investments class required for all College of Business majors. Another series of podcasts was created for a senior-level corporate finance class required for all finance majors. The type and objective of the podcasts for the two classes was different.

The objective of the podcasts for the 300-level class was to provide students with material covering the topic of corporate governance. The topics and issues to cover were qualitative rather than quantitative. The podcasts covered the basic concepts associated with corporate government from the perspectives of finance and management. Another podcast reviewed the history of corporate governance and the regulatory environment. This podcast also provided an historical perspective on governance issues. A final podcast reviewed corporate governance in the news by covering examples of good and bad corporate governance at companies students would recognize.

Students were provided a handout with key terms and a series of study questions. The podcasts were also referenced in class lectures and discussions. Students were required to answer test questions related to the content from the podcasts. All of the students in the class listened to the podcasts and took exams over the questions. The scores on questions indicated students understood the material. Students indicated they “rewound” the material to listen it to it again. They reviewed the questions and vocabulary words before they listened to the podcast. The only student suggestion for the podcasts was to break them into segments no longer than 10 minutes.

Podcasts at the 400-level were designed to cover material not discussed or tested in the course. The class involves collaboration on assignments, cases and presentations in a group setting. Students in past classes demonstrated a lack of skills in terms of collaborating on content, organization, the use of word processing programs and spreadsheets. A series of podcasts was created to help students develop

collaborative tools and skills. An auditory podcast reviewed the theories of group interaction and dynamics and also included reference to articles indicating the importance of group skills in the business community.

Video podcasts were created to teach students how to collaborate during the process of writing papers and preparing spreadsheets. Students were shown how to use the collaborative tools in Word and Excel. Brief videos indicated the menu of commands in both programs that would facilitate collaboration. Creating video podcasts were more difficult than audio podcasts because both audio and video needed to be scripted. Anecdotal feedback indicated students had a positive attitude toward the material. The material was referenced and used when questions and concerns cropped up during the semester about the group process and the appropriate tools to use to prepare a presentation and report with other students.

EXAMPLES OF PODCASTS IN COLLEGE OF BUSINESS ACCOUNTING CLASSES

During the 2006-2007 academic year, another series of podcasts was developed for sophomore- and junior-level management accounting courses. The purpose of these podcasts is to support a traditional classroom experience. Specifically, the podcasts are used to support course material in one of two ways; to provide an overall introductory framework for a broad topic or to provide a review and explanation of core concepts.

A podcast addressing the purposes and types of costing systems, developed for a sophomore-level principles of management accounting class, is an example of a podcast used to provide an overall framework for a broad topic. The focus of that podcast is on helping students understand the overall purpose of costing and cost allocation with a secondary focus on contrasting different cost systems based on their specific purpose. Separate podcasts addressing individual costing systems are examples of podcasts utilized to review and explain core concepts. For example, a podcast addressing process costing explains the purpose of process costing, the basic elements of a process costing report, and steps involved in preparing a basic process costing report.

Another example of a framework-based podcast is a podcast developed to address the role of operations budgeting in a firm's planning and budgeting processes. Then, additional podcasts explain the core concepts involved in preparing a master budget and each of the budgets supporting the master budget.

In all of the above examples, no new material is being presented through the podcasts. All of the information is addressed in classroom discussion and exercises. The podcasts are a means to reiterate and review significant course content. Anecdotal evidence suggest that students appreciate having access to the podcasts as they review material after a class. A student comment many professors have heard numerous times over our careers is "It made sense when I was in class, but then I went home and found that I didn't remember key parts of the discussion." These podcasts archive key parts of the classroom discussion and make them available on demand.

CONCLUSIONS

Podcasts are an additional tool faculty can use in both the traditional and distance education classroom. More and more students start class already familiar with downloading and using audio and video podcasts. The technology provides an alternative to faculty who want to engage and enhance student learning. As the technology evolves, faculty and students may also find that podcasts are a part of m-learning in which students use wireless to text and watch or listen to podcasts as they interact and learn.

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