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A Trilogy of Flexibility in Executive Management Programs: Synchronous Classrooms, Podcasts and Vodcasts

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Abstract

Each year more and more managers participate in virtual classroom settings around the world. This paper provides a case study in which podcasting and vodcasting were used to enhance the virtual classroom-learning environment. The virtual classroom sessions were delivered in a synchronous online environment. The synchronous delivery tool allowed the multimedia content to be delivered using traditional PowerPoint presentations, synchronous whiteboards, shared browser exercises, instant polling, anonymous participant questioning tool, video streaming, email, and web searches. Podcasts/ vodcasts were developed to provide enriched, remedial and regular material on a session topic. The content involved various topics in statistical analysis in the workplace.

The learning materials were developed for use with executives in an MBA class at Saint Mary's College in California, in which either the instructor or the students could be in a remote site. While the use of a virtual classroom allows for flexibility, the associated significant constraints include having access to a computer and the worldwide web. The podcast / vodcast tools remove those constraints and only require an MP3 player or portable digital audio device to listen to the lecture, once the audio/video file has been downloaded from a computer. Podcasts / vodcasts are rapidly becoming popular due to their user friendly nature and low cost of the associated equipment. Initial pilot study data from the executive MBAs in this case study indicate a positive response to these technologies.

The case study presented in this paper demonstrates an evolving delivery format that may greatly enhance the learning experience of busy, international executives. The executive can now be listening to (podcast) or viewing (vodcast) during the training session anywhere in the world. This type of delivery format can also serve as an aid to auditory learners across diverse cultural groups.

Although podcasting and vodcasting are very real and very practical distribution technologies, future quantitative and qualitative analysis is required to evaluate the effects and impacts of these new technologies on executive learning.

Introduction

This exploratory research was completed within the 2005 Executive MBA programs at Saint Mary's College in California. Saint Mary's College has been offering traditional classroom Executive MBAs for over 2 decades. However in 2005 the department decided to expand the program offerings to include a hybrid format that has students in a face-to-face traditional classroom every other week. The students meet in a synchronous online environment in the interceding weeks. One of the most valued properties of this type of program is the increased level of flexibility for both student and instructor. You are no longer restricted to being in a classroom at a designated location; you can be working in the comfort of your own home or your hotel room. The synchronous delivery tool allows the multimedia content to be delivered using traditional PowerPoint presentations, synchronous whiteboards, shared browser exercises, instant polling, anonymous participant questioning tool, video streaming, email, and web searches.

However ubiquitous we may all hope Internet access is, there are places in the world in which web access is just not possible. By using podcasting and vodcasting as part of a learning delivery system, executive training can have even more flexibility because now the structured time component has been removed and Internet access is no longer required at the time you listen to or view the event. The training material can be listened to and or viewed by the executive wherever and whenever it is convenient and the hardware that is required is only an MP3 player.

Saint Mary's College Executive MBA students, prior to participating in any pod/vodcasts were surveyed to determine their overall awareness of pod/VOD casting. These students came from 2 samples: one from the traditional Executive MBA and the other from the Hybrid MBA. In addition a sample of 10 professional trainers were interviewed to begin to understand the perceived role for this technology in building executive training programs in the workplace. In the second stage of this study, the Hybrid students were exposed to pod/vodcasts and then asked to provide feedback on these technologies. The samples include managers and trainers from professional services, IT, energy, food, transportation, communications, entertainment, healthcare, biotech, marketing, financial services and research. This data collection was exploratory in nature and will serve as a pilot study for the design of future research.

Podcasting and Vodcasting Defined

Podcasting is a process of capturing an audio event and then posting that digital sound object to a website in a data feed called an RSS 2.0 envelope (Meng, 2005). The actual word " podcasting" evolved from the Apple Computer " iPod" and the word " broadcasting". It might seem to imply that one needs an iPOd to podcast but in actuality one only needs an MP3 player of any kind. Many have compared podcasting to garage radio show broadcasting. RSS stands for Real Simple Syndication and is a format for syndicating news in which you

control the subscription. You can subscribe to an RSS feed or podcast when you want to and delete the subscription when you want; it's entirely controlled by you. To subscribe to a podcast, all you need to do is input a URL into your RSS reader. The audio files from the podcast will be automatically downloaded into a content management program such as iTunes or Windows Media Player. The user can then synchronize their MP3 player with their computer and the podcasts are transferred to that device.

The word vodcast is a combination of " video-on-demand" (VOD) and broadcasting. In this technology the event is presented in both digital video and audio formats. Once again the files can be automatically downloaded into your content management program. The video enclosed in a vodcast can be stored on a web server in any file-based container and codec, or streamed from a streaming server. The iPOd is one of the first MP3 players to provide vodcasting playback capabilities.

Podcasting allows anyone with a microphone and an Internet connection to create audio files that others can download. vodcasting also requires some type of video camera. To create a pod/VOD cast you need to create the content and publish it to a website. To access the pod/vodcast you need to subscribe to the content using an "RSS news reader", download the content into content management software on your computer, and then download the file to your MP3 player by synchronizing it with your computer.

A brief overview of the required tools and software is included in Table 1. Much of the software is available as free downloads. Most executives will most likely already have computers and Internet access available to them. Most companies will already have storage space available for archiving the pod/vodcasts. The remaining equipment purchase includes MP3 players for the subscribers and a microphone for the person creating the podcasts. For vodcasting the company would need to have a camera available.

Table 1. Pod/vodcasting tools and software

Required tools/software	Comments
Internet	To access audio and video files for download to MP3 player. For publishing and subscribing
Computer	To access Internet
MP3 player	To capture files for future listening/viewing. Vodcasting requires both audio and video capabilities.
Microphone and recording device	For recording audio content i.e. iPod with microphone, tape player etc.
Editing software	Optional. Many available such as www.shareware.com. For video Final Cut Pro or iMovie.
File transfer software	To publish files to website or blog. Traditional file transfer methods include basic FTP/SFTP, HTTP upload etc.
RSS enclosure	To tag content via XML in RSS structure. i.e. Feedburner
RSS news reader	To download pod/Vodcast ipodder.sourceforge.net. Others include IPOdderX and PlayPod etc.
Content management software (CMS)	To sort and organize content into playlists. Allows for automatic synchronization with media player when you connect to your computer. i.e. iTunes, Windows Media Player, Sony MusicMatch, iPhoto, Adobe Album, etc.
Camera	For recording video content i.e. digital camcorder
Storage	Website/drive/server to store files for future or ongoing distribution

The other investment is the training of the executives, which really requires only minimal time. One needs only basic computer abilities and an interest in learning new user-friendly software.

Pilot Survey Results
- **Part 1 Technology Awareness**

The first two samples include Saint Mary's MBAs from the Executive program (13) and the Hybrid program (11). The third sample includes 10 professional trainers from multinational corporations. All data were collected in 2005 using convenience samples from Saint Mary's MBA executive students and from industry trainers. Confidentiality and anonymity were preserved. Participants from all three samples completed a 7-question survey (Appendix 1.) The MBA students completed this survey prior to participating in any pod/vodcasts in their associated programs.

The first data provided insights on the level of exposure these executives and trainers had to pod/Vodcasting. The results are shown in Figure 1. All

participants from the Hybrid and trainer samples had some knowledge about these technologies. However in the traditional MBA group, only 33% of the 40-50 year olds had some knowledge, and a little over half of the younger age group (30-40 year olds) had some knowledge. This should not be too surprising as the Hybrid group tends to have a higher affinity for technology and the trainers may need to know about pod/vodcasts as part of their jobs.
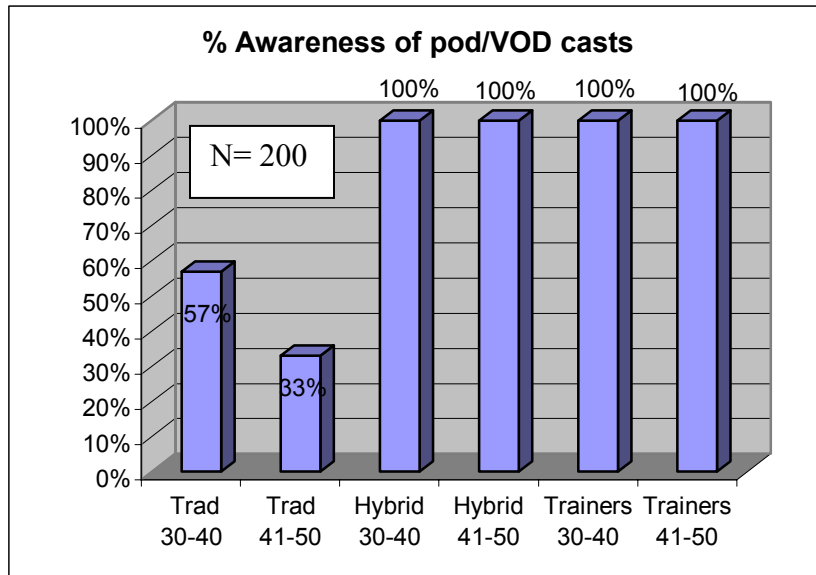
Figure 1. % Awareness of pod/vodcasting

Figure 2 summarizes the current usage of MP3 players amongst the 3 samples. The Hybrid group has approximately 64% ownership of an MP3 player, followed by 40% of the trainers and lastly only 31% of the traditional MBA executives have MP3 players. All participants in this pilot survey were between the ages of 30 and 50 years old. One might surmise that the Net generation, born between 1982 and 1991, might be more likely to own MP3 players as part of the day-to-day existence then the demographic in this study. However even within this pilot study there is a reasonable amount of MP3 ownership.

Figure 2. Current Usage of MP3 players within the workplace

% Usage of MP3 Players

N=191
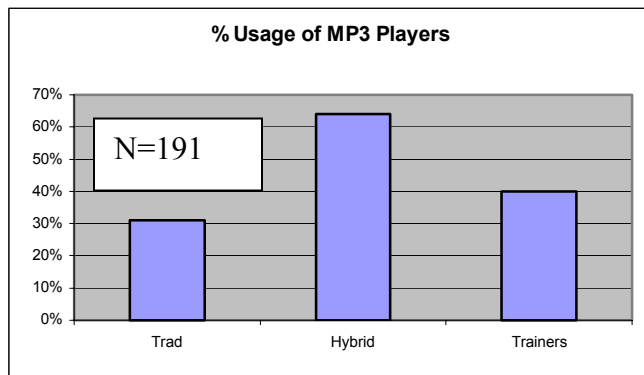
The next area of analysis addresses how widely used pod/vodcasting is within the participants' workplaces. The aggregate usage percentage across all 34 participants was 35%. In other words 35% of the companies associated with the sample participants are currently using some form of pod/vodcasts. Further information would be worth having on whether these are one-time only events or are an integral part of their ongoing program.

- **Part 2 Evaluation of pod/vodcasts in the classroom**
    The sample of 35 Hybrid MBA students had access to podcasts addressing statistical topics associated with Normal and Non-normal Distributions. The podcasts were designed to not only deliver content as a standard lecture, but to also recontextualize the material as a remedial lecture and as an enriched lecture. Executives were asked to review all three podcasts after attending the standard lecture in the synchronous online classroom session. The vodcast was limited to only the standard lecture content. Therefore the executives had an opportunity to have access to the same content in a synchronous online environment, in a podcast and in a vodcast. These MBAs were then asked to discuss possible merits of the pod/vodcasts in terms of executive learning and in terms of general workplace applications. Additionally they were asked to identify possible pitfalls. These responses are summarized in Table 2.

Table 2 Workplace Implications

Executive Learning	Workplace applications	Pitfalls
Flexibility in time and place. No need for internet access	Recorded meeting notes	Monotone presenters are not very effective
Review material at own speed	Shared conference learnings for those who could not attend	The screen is small on the iPOd to view the Vodcast
Material available for unlimited reviews	Monthly reviews	Pod/VOD casts should not be available for all presentations as then people will just stop showing up for the face to face meetings
Absorb concepts at own pace	Increase dissemination of information to all employees	Copyright issues with intellectual property issues (Read, 2005)
Opportunity to gain more information on advanced materials	Shared learnings and pitfalls on project work	
Opportunity to review missed concepts	Compliance training sessions	
Another learning environment to augment more traditional one for auditory learners	Marketing	
Cover more material more quickly	Step by step procedures that employee can review as many times as needed	
Foreign language acquisition	Global outreach with consistent message- available in multiple languages	
Allows for multitasking	Cultural overviews for doing business abroad	
	Less equipment to carry when traveling	
	Customer support	
	Helpdesk	
	Teaching a new skill like SAP etc	
	Software updates	
	New employee orientation	
	Safety training that	

	remains the same from year to year. Employees just need a quick refresher	
	Good for employees who have English as a second language	

Table 2 indicates numerous advantages for pod/vodcasting both for executive learning and for more general application within the workplace. A large number of these items refer in some way to increased flexibility. The ability to download content whenever and where you want to affords the busy executive more time for other things. Likewise a high level of flexibility exists for the executive who wants to provide content to those in his/her department. The content can be developed and downloaded for review by others in a minimum amount of time with a minimum of training.

However it is also worth noting some of the pitfalls as included in Table 3. Monotonous presenters are not very effective as podcasters. It is also not effective to plan on showing detailed visual content on the small iPOd screen. The resolution is excellent but it is still a very limited viewing screen. One of the fears of introducing this technology as a way for people to catch up on missed meetings, is that people will just stop going to the face to face meetings entirely and solely depend on podcasts. Lastly the area of who owns the content is still under debate, so the concept of intellectual property rights remains unclear right now.

Limitations and Future Research

Several limitations within this study should be taken into consideration when interpreting these initial findings. The generalizabailtiy of these results is limited due to the small sample size. More exhaustive research is required to better understand the effectiveness of pod/vodcasts. The data was only considered in a snapshot of time with limited exposure to pod/vodcasts. Longitudinal analysis over several years would allow for more robust analysis and help to mitigate contextual biases. This pilot study was conducted within the United States with only American managers and trainers. To generalize the findings in a more global arena, international samples should be collected and analyzed. In spite of these limitations there are several key learnings that may be helpful in designing a more rigorous research effort.

Future research will include establishing a rigorous set of metrics for measuring the effectiveness of pod/vodcasting in an executive learning environment. Subsequent data collections will occur over the next year and include test/retest analysis. Once the survey tool is established relative to American results it will be modified to be culturally tuned for use in other international locations.

Conclusions

This is one of the first studies to examine the level of awareness of managers across several industry sectors to pod/vodcast technology. The pilot data suggests that there already exists a reasonable degree of awareness of pod/VOD casting and its related technologies. The entire Training sample and Hybrid sample were aware of these technologies. This could be partly attributed to the fact that both these groups include people who are usually comfortable with new technologies. Within the traditional MBA group there was an increased awareness within the younger age group of 30 to 40 year olds than in the 41-50 year olds.

All samples and all age groups agree that there may be many positive applications for this type of technology both in an executive learning situation as well as in the general workplace environment. The most commonly espoused attribute by respondents with regards to this technology was the increased flexibility in being able to listen wherever and whenever they want to the content. The second most common benefit was the ability to review the content as many times as needed at one's own pace. More rigorous metrics are required to measure the true impact of these technologies in training and learning environments.

As Peter Meng (2005) suggests "Podcasting and vodcasting, and their pending derivatives are not fads. They are real and very practical distribution technologies". The required equipment is minimal and relatively inexpensive. It is easy to use and does not require a huge time commitment to produce a pod/Vodcast. These factors may allow audio/video recordings to rapidly gain in popularity in the workplace.

As we reflect back on the very recent past we have moved from webpages to blogs, to podcasts and now to vodcasts. According to Robin Good " the pieces are coming together to enable video-casting to be the next big thing" (2005). In November 2005, 3 out of the top 5 podcasts in the Dutch iTunes Music Store were vodcasts (wikipedia.org, 2005). Many feel that the next generation of learners will meet and surpass the Net generation's (1982-1991) expectation of learning standards (McNeeley, 2005;Oblinger & Oblinger, 2005). With the appropriate use of technology such as pod/vodcasts, perhaps we can continue to improve our training and learning environments.

Appendix 1

Pilot Survey on Podcasting/Vodcasting
December 2005
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<div style="border:1px solid black;display:inline-block;padding:4px;">

**Anonymous and
Confidential**

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1. What is podcasting?
2. What is vodcasting?
3. Does your company currently use these? If so how?
4. Have you ever used one of these? If so describe.
5. How could these be used inside the MBA to create an enhanced learning environment?
6. Do you own an MP3 player or are you going to be acquiring one soon?
7. How could these be effectively used in your workplace?

Demographics**:** Please circle the correct answer

Gender: m   f
Age group: 20-30   30-40   40-50   50-60   60+
Professional group (sales, etc): _____
Company sector (energy, technology, etc) _____
Highest degree completed (not your MBA!) _____

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