

ED-CAST: An International Podcasting Collaboration to Enhance Access and Knowledge

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Introduction

In the spirit of the Open Knowledge Initiative, Ed-Cast, the higher education podcast repository, seeks to promote sharing of podcast lectures, speeches, presentations and related educational materials across institutional boundaries. Through an easily searchable database, and using Creative Commons licensing, podcasts are shared and virtual guest speaker engagements are encouraged. The repository is a joint project of the University of Illinois at Springfield and the University of San Francisco, with start-up funding from the University of Illinois Online. The repository is in working beta form and open to receiving submissions from faculty and staff members at high education institutions worldwide.

Brief History of Podcasting

The term podcasting is a combination of the words “iPod” and “broadcasting.” The advent of podcasting has enabled the ready notification and easy distribution of audio (and more recently video and audio/graphic) files across the Internet. Podcasting involves the creation of a media file, such as an MP3 audio file; posting the file on a server accessible through the Internet; and also posting online an XML file meeting the RSS 2.0 standard. The RSS 2.0 file directs podcatchers, including the very popular iTunes to the most recent media file postings. It was in late 2000 that Dave Winer, creator of RSS and a multitude of Web log utilities joined Adam Curry, founder of OnRamp, to create the first podcast. Winer added the “enclosure” specification to RSS 2.0, which enabled inclusion of the URL address of a binary file such as MP3, MP4a, etc. in RSS feeds (Affleck, 2005).

But, the “enclosure” feature of RSS 2.0 remained largely unused until there were enough MP3 players, blogs and people interested in sharing audio/video/graphical content to make the standard useful. Dave Winer, himself, was one of the first podcasters with his “Morning Coffee Notes.” The standard took off when Curry wrote “iPodder” in Apple Script, enabling automated linkage to iTunes and the increasingly popular Apple iPods. (Affleck, 2005)

Uses of Podcasting in Higher Education

Podcasting has been used for many popular applications, including music shows, political commentary, social commentary, how-to programs, advertising, debates, and a plethora of other uses. Enhanced podcasts enable graphics and pictures to be included. Enhanced podcasts may provide even “vodcasts” in which video-on-demand is provided. The applications in higher education are many. They include such applications as dissemination of lectures; faculty and student recorded notes; news broadcasts to a campus community; student recruiting messages; student projects; oral history records; and even sporting events (Meng, 2005).

Clearly, though, the most popular initial use of podcasting in higher education has been for the dissemination of lectures. There are many reasons for this popularity, including the allowing of students

to review material following a lecture, to double-check lecture notes, and to prepare for examinations. The podcast format enables students who miss a class session to hear, and in some cases see, the lecture that they missed (Read, 2005).

Context of Learning Object Databases

Pre-dating the advent of podcasts has been the development of learning object databases. MERLOT, the Multimedia Educational Resource for Learning and Online Teaching, is the largest and best-known online database. MERLOT permits open source access to a wide variety of resources including case studies, simulations, tests, quizzes, syllabi, and much more. (Sheffield, 2005) A simple search of the MERLOT database turned up 13,975 learning objects on May 30, 2006. Among those objects, only 12 were identified as podcasts! (MERLOT, 2006).

While one can use search engines to attempt to identify learning materials online, there currently is no effective search of the content held within audio and video files. There is no standard codification followed for metadata of podcasts. Just as MERLOT brings together an assembly of learning objects that may be peer-reviewed, the need existed for a repository to pull together podcasts that might be shared among universities.

Ed-Cast Conceptualization

The concept of Ed-Cast, the Higher Education Podcast Repository came about in discussion between the authors of this paper, Professor Emeritus Ray Schroeder of the University of Illinois at Springfield (UIS) and Professor Margaret Maag of the University of San Francisco (USF). After previous collaborations on blogging, the two identified the need for a place at which podcasts could be indexed for the purpose of sharing among faculty members and others at higher education institutions. The idea was to promote inter-institutional sharing of lectures, presentations, debates, and other audio and video materials. Dr. Burks Oakley, director of the University of Illinois Online saw the potential in the project and funded the development of a working beta version.

Domain names, including both <http://ed-cast.org> and <http://ed-cast.com>, were purchased and Web site hosting retained through GoDaddy.com. The logo and page design graphics were obtained from Gecko Designs. UIS Office of Technology-Enhanced Learning (OTEL) Web developer Matt Komanecky designed an online Access database for the input and retrieval of information. A submission page was created that collected all of the basic information about the podcasts. Creative Commons licensing became a part of the requirements for acceptance of podcasts. In order to encourage interaction among the podcast producers and the faculty and students using podcasts, an entry in the submission form was created to identify those submitters who are willing to engage in online discussions about their podcasts. A design and functionality rubric was developed in an adaptation of a rubric presented at the pre-conference workshop “Communicating Visually: New Fluencies for the Academic Community” presented by Susan Metros and Joanne Mahoney at the EDUCAUSE ELI 2006 Annual Meeting.

The initial version of Ed-Cast might best be described as a “referatory” rather than a repository. That is, the podcasts are linked at the site rather than a copy with new RSS hosted at the site. Users are referred to the home site. Over time we will import the podcasts into the ed-cast.org domain so that the RSS and URL will direct listener/viewers to copies held online at ed-cast.org rather than putting a load on the origination site for the podcast.

Challenges Ahead

Among the challenges that remain is the concern about providing accessibility for the hearing impaired to the audio podcasts and for the sight impaired to the enhanced podcasts. We have experimented with a variety of speech-to-text conversion software packages. None seem fully adequate at this point. The authors are considering automatic captioning software to provide an acceptable stream of text to accompany the audio of the podcasts. In the case of vodcasts, or video-on-demand podcasts, no software has been identified. In order to reach the full potential of podcasting, these accessibility issues must be addressed.

Additional challenges have arisen in identifying qualified reviewers for the podcasts. It would seem that we need to develop a cohort of reviewers spanning a range of academic disciplines in order to assure that all podcasts accepted into the repository meet at least a minimal standard of content relevance and quality. It may be possible that an existing non-profit organization such as the Sloan-Consortium or a large commercial provider may be able to pull together teams of reviewers that represent the necessary range of disciplines to adequately provide at least modest peer-review of the content.

Conclusions

The rapid rise of podcasting in higher education can be readily seen through the proliferation of iTunes University sites. Some universities, such as Stanford, are actively promoting the use of podcasting to enhance the learning process (Townend, 2005). Other universities such as the University of Illinois at Springfield are equipping all smart classrooms with technologies to enable easy recording of podcasts by all lecturers.

The universal electronic multimedia format and the rapid dissemination mode of RSS make podcasts particularly well adapted for sharing across institutional boundaries. Time, distance, and technical standards are not barriers to sharing these learning objects. Yet the traditional learning object repositories are slow to incorporate podcasts into their databases.

In order to best realize the potential of inter-institutional sharing of podcasts, an easily searchable database with clear copyright permissions must be provided. This database should best be open to all forms of traditional and enhanced podcasting in higher education. It should provide accessible content. The materials included in the database should be peer-reviewed for both content and format. That is what the authors aspire to offer through Ed-Cast. However, it only will be through the active participation of many podcasters in higher education that Ed-Cast can meet the potential of breaking down institutional boundaries and sharing learning materials freely among colleges and universities worldwide.

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Biographical Sketches

Ray Schroeder is Professor Emeritus of Communication, Director of the Office of Technology-Enhanced Learning at the University of Illinois at Springfield, and Faculty Associate at the University of Illinois Online. He has taught more than thirty online classes. As Director of Technology-Enhanced Learning he is dedicated to faculty development and pedagogical support of the online initiative. As Faculty Associate, Schroeder is engaged in the formation of online learning policy for the University of Illinois. He is a Sloan Consortium Distinguished Scholar in Online Learning 2002-2003 and the recipient of the 2002 Sloan-C award for the "Most Outstanding Achievement in ALN by an Individual."

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