

Chapter 18

Educational Podcasting

A Taxonomy of Pedagogical Applications

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ABSTRACT

The proliferation of Web 2.0 technologies generates a new wave of online behavior; distributed collaboration, and social interaction. They are already having a transformative effect on education, triggering changes in how teachers and students communicate and learn. The chapter illustrates the new forms of learning, communication, and participation enabled by podcasting and the pedagogical innovations that are possible with this audio-based Web 2.0 technology. Beyond having access to a wider range of content, learners can engage in creative authorship by producing and manipulating digital audio content and making it available for consumption and critique by classmates, teachers, and a wider audience on the Web. A range of podcasting activities are described in contemporary learning environments. The emphasis is on tertiary education settings where students are engaged in content creation, self-directed learning, and metacognitive skill development. These examples are discussed in terms of how they are indicative of the pedagogical choices now available to teachers and learners.

INTRODUCTION

Podcasting technology allows audio content from one or more user selected feeds (channels) to be automatically downloaded to one's computer as it becomes available, and later transferred to a portable player for consumption at a convenient time and place. It has enjoyed phenomenal growth

in mainstream society, alongside other Web 2.0 technologies that enable Internet users to author and distribute rich media content. Jon Udell (as cited in Campbell, 2005) attributes this growth to five main factors:

1. The pervasiveness of the Internet;
2. The rapid growth of broadband;
3. The widespread availability of the multimedia personal computer;

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4. The blurring of the distinction between streaming and downloading media content; and
5. The rapid uptake of portable MP3-capable devices.

Adam Curry (2004), of *MTV* fame, first coined the term “podcast,” which is a portmanteau word that combines the words ‘iPod’ (the name of Apple Computer’s popular music player) and “broadcast.” Podcasting has also been likened to a *TiVo* or similar device that uses a process of time shifting to allow for flexible viewing at a time convenient to the user. Once downloaded, audio podcasts can be transferred to a variety of portable devices, including but not limited to dedicated music players such as Apple’s iPod, handheld computers, as well as many modern mobile phones and personal digital assistants (PDAs).

Podcasting has the potential to support learning in a range of settings and across the disciplines. This chapter outlines innovative pedagogical uses and applications of podcasting across a range of settings, including student-generated audio segments for distribution to and critique by peers. Students at colleges and universities worldwide are now engaged in creative authorship by being able to produce and manipulate audio files and video clips, tag them with chosen keywords, and make this content available to their friends and peers worldwide through media sharing websites and RSS (Really Simple Syndication) feeds. Such applications are reflective of the new emphasis on user-generated content, creativity, and community-based knowledge building that are characteristic of Web 2.0.

BACKGROUND

Podcasting allows users to receive new audio material on their desktop computers automatically by subscription. It offers a low-cost, low-barrier solution for the timely delivery of fresh content as

it becomes available, for transfer to or synchronization with a portable device when the user is next able to physically access his/her computer. The editors of the New Oxford American Dictionary declared “podcasting” the “Word of the Year” for 2005; they defined the term as “a digital recording of a radio broadcast or similar program, made available on the Internet for downloading to a personal audio player” (Oxford University Press, 2005, p. 1). This is but one testament to the burgeoning growth of the technology and its *au courant* status in mainstream society. In fact, the word “podcast” has spawned a number of associated words, each with a particular meaning as Table 1 displays.

The popularity of podcasting has resulted in a situation whereby many authors, educators, and educational technologists tend to use the term very loosely to refer to any digital audio content that is broadcast over the Internet (for which the correct term is “audiocast,” as seen in Table 1). One definition that remains true and accurate to the use of the word by its originator (Curry, 2004), is that proposed by Dixon and Greeson (2006), who highlight three key characteristics of podcasting:

1. It uses *file-based downloads* – As opposed to streaming, which by definition means playing the media as it downloads, podcast files are downloaded in their entirety before they are consumed;
2. It is *subscription-based* – The user pre-selects one or more feeds or channels of his/her choice and podcasts are automatically “pushed” to his/her computer on a regular schedule;
3. The content is consumed on *portable devices*, such as dedicated MP3 players (including but not limited to iPods), mobile phones, as well as personal digital assistants (PDAs) that have MP3 playback capabilities. However, according to a survey by Bridge Data (n.d., cited in Dixon & Greeson, 2006) more than

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