

Chapter 41

The Use of Podcasting/ Vodcasting in Education

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ABSTRACT

Podcasting and vroadcasting are audio and video files, respectively. These files can be accessed by subscribers at any time of day. Initially, the technology was used for information and entertainment. Later on, it became clear that this technology could be useful in education. There are many advantages in the use of these technologies. Yet, there are a few drawback that cannot render the technology useless. The technology can be used in various ways in both tertiary and secondary education. Until recently, the process of creating, editing, and distributing vodcasts and podcasts was a manual process. Fortunately, new tools have automated this process, and the authors describe one of these tools and its use.

INTRODUCTION

The terms podcasting and vroadcasting refer to automatically downloadable audio and video files. Typically a podcast is an MP3 file whereas a vodcast can be any popular compressed video file. In 2004 the term podcasting was first mentioned in an article in the newspaper The Guardian (Hammersley, 2004). The term podcasting derives from iPod, the device that was first used to download and play podcasts. The inventors of the technology are Dave Winer and Adam Curry (Brown & Green, 2007). At that time, Winer was a software developer and an RSS evangelist while Curry was an MTV vj. Rich Site Summary, or just RSS, is a format for delivering regularly changing web content. Initially, podcasting was used for personal entertainment or information but soon it became clear that it could be used in education. Since its introduction the technology became very popular and this can be seen by the number of downloads. In April of 2006 ten million podcasts were downloaded while in November of the same year 17 million podcasts were downloaded.

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The terms podcasting and vodcasting (the vod part comes from *Video On Demand*) refer to a process. In particular, when there is an event, one has to capture the song, the interview, etc. The result can be either an audio file or a video file. Today's video capturing devices can produce high definition video that is stored using a compressed codec so there is no need to re-encode the video, something that was quite common in the early days. Then, one had to post this audio or video file to a web site or a blog and using an RSS (Rich Site Summary) envelope (RSS is a format for delivering regularly changing web content). Obviously, the author had to inform people who might be interested in the new content. This is done automatically if people subscribe to an RSS feed. Nowadays one can use her smartphone to read the RSS feed and then to download the new content.

Today one can use a smartphone to record a video file or an audio file. Also, one can use a digital camera to record a video file. When one prepares a podcast, then it is recommended to use the "Audacity" open source software for audio editing. On the other hand, the open source project "pitivi" can be used to edit video files.

BACKGROUND

Podcasting was primarily used in tertiary education to make lectures available to students in order to clarify difficult parts and emphasize important ones. Later on, podcasts were replaced by vodcasts. Currently, there are four kinds of vodcasts that are used in education: lecture-based, enhanced, supplementary, and worked examples (Kay, 2012). A lecture-based or "substitutional" vodcast is a recording of an entire lecture. Thus students can experience what happened in the lecture hall without actually being physically present. An enhanced vodcast is video footage of a slideshow (e.g., Powerpoint or Beamer presentations) that is presented with an audio explanation. Supplementary vodcasts are designed to augment the teaching and learning of some courses and may include administrative support, real-world demonstrations, summaries of lectures or textbook chapters, or additional material designed to broaden or deepen student understanding.

There are also other ways to classify vodcasts. For example, depending on whether a vodcast is offered in segments or not, one can talk about segmented vodcasts or non-segmented vodcasts, respectively. In addition, the pedagogical strategy can be used to categorize vodcasts. In particular, there are three different teaching approaches. The first is called receptive viewing and includes vodcasts to be viewed by students in a passive manner (i.e., like watching a movie). There are problem-solving vodcasts that are designed to explain and help students in learning how to solve problems and exercises related to their courses. Naturally, such vodcasts are useful for people who study science, mathematics, or engineering. A third category includes vodcasts that are created by students for students.

Although vodcasts seem to be quite popular today, there are a few questions related to their use in education. The first question is whether students are ready for this technology and the second question is whether this technology is actually useful. The first question has been tackled by (Walls, Kucsera, Walker, Acee, McVaugh, & Robinson, 2010) among others. First we need to note that today most if not all students own laptop or desktop computers and smartphones, which can be used to listen to music, to watch videos, take pictures, shoot videos, and so on. Thus many of the devices of the past (e.g., iPods, mp3 players, pocket digital cameras, and so on) have been replaced by smart-phones. This simply means

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