Exploring Applications for Using Video Podcasts in Online Learning

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ABSTRACT

The purpose of this paper was to explore research-based applications for using video podcasts in an online learning environment. Five key video podcast uses were examined including administration, instruction, student assignments, feedback, and community. Administrative video podcasts provide course information on areas such as learning goals, lesson plan instructions, course policies, and homework or assignment expectations. Instruction-based video podcasts present short summaries or worked examples for teaching specific concepts. Student assignment video podcasts offer a creative way for students to demonstrate a variety of skills in a wide range of subject areas. Feedback-based video podcasts provide formative guidance to students about their progress or summative evaluation for assignments they complete. Finally, community-based video podcasts help build instructor-to-peer and peer-to-peer connections within an online learning course. Future exploration on the design of video podcasts, regardless of the application used, is discussed.

Keywords: Assessment, Online Learning, Pedagogy, Synchronous Learning, Video Podcasts

INTRODUCTION

Overview

Video podcasts are audio-visual files that are distributed in a digital format through the Internet using personal computers or mobile devices (McGarr, 2009). Since 2006, the use of video podcasts has grown markedly in higher education (e.g., Heilesen, 2010, McGarr, 2009). Research indicates that this medium is useful, helpful, and effective with respect to improving learning (e.g., Abdous, Facer, & Yen, 2012; Bennett & Glover, 2008; Holbrook & Dupont, 2010; Lonn & Teasley, 2009; Kay & Kletskin, 2012; Kennedy & Thomas, 2012; Pilarski, Johnstone, Pettepher, & Osheroff, 2008). Video podcasts appear to be a natural fit for online education allowing students to control when and where they learn (e.g., Hill & Nelson, 2011; Hill, Nelson, France, & Woodland, 2012; Jarvis & Dickie, 2010; Taylor, 2009; Winterbottom, 2007), what they need to learn (e.g., Fill & Ottewill, 2006; Heilesen, 2010), and the pace of learning (e.g., Chester, Buntine, Hammond, & Atkinson, 2012).

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History and Use of Video Podcasts in Education

The production and availability of video podcasts has increased dramatically since 2005, when YouTube, a site designed to broadcast a wide range of video clips, was launched (“YouTube”, 2012). By 2006, YouTube recorded 100 million downloads per day (Infographics, 2010). As of January 2012, YouTube video podcasts were viewed over four billion times per day (Limer, 2012). Originally used for entertainment purposes, YouTube is a free source of numerous educational video podcasts in a wide range of subject areas. In addition, new portals such as the Khan Academy, exclusively designed to distribute education based video podcasts, are used extensively with over 300,000 clips downloaded per day (see http://www.khanacademy.org/).

Research on the use of video podcasts has also grown rapidly since 2006 (e.g., Heilesen, 2010, Kay, 2012; McGarr, 2009). While studies targeting the use of video podcasts in online education are limited, the results in conventional, face-to-face classrooms suggest that these audio-visual tools could be a promising fit in online education (Kay, 2012).

Online Learning and the Use of Video Podcasts

Over the past five years, a substantial amount of money and effort has been directed toward delivering online education, with estimated annual growth from 10 to 21 percent (Allen & Seaman, 2008, 2009, 2010, 2011). Although this growth has been impressive and far exceeds the two percent increase in the overall higher education population, a number of obstacles have impeded its progress including resistance to using technology (Harper, Chen, & Yen, 2004), the time required to develop course resources (Harper et al., 2004; Hayes & Jamrozik, 2001) and to support students (Levine & Sun, 2002), paucity of technology skills (Berge & Smith, 2000), and cost (Burgess & Russell, 2003; Levine & Sun, 2002). In addition, the promise of interactivity and constructivism in distance learning has not been realized as many online learning courses resemble traditional classroom environments with passive presentation of concepts and materials (Coates & Humpeys, 2003; Levine & Sun, 2002; Navaro, 2000). A reasonable argument can be made that video podcasts are a natural fit for an online learning environment. The ready availability and variety of clips matches the needs of online learners who are looking for control over when, where, what, and how they learn. Furthermore, video podcasts are easy to develop and typically free, which address issues of cost, excessive time for developing resources, and limited technology skills (Kay, 2012). Finally, when used in a meaningful and effective manner, video podcasts can help increase interactivity (Kay, 2012) and consequently the quality of online learning.

Purpose

The purpose of this paper is to present a preliminary set of research-based applications for using video podcasts in an online learning environment. Five applications will be discussed in detail and include administration; instruction, student assignments, feedback, and community.

Method

For each component, a description of the type of video podcasts used along with specific examples will be provided. Next, relevant supporting research will be discussed. In some instances, relevant evidence is not abundant, so recent case study data is provided. It is important to acknowledge that the applications presented are preliminary and that future research is needed to establish their reliability and validity.