Chapter 8
In the Current or Swimming Upstream?
Instructors’ Perceptions of Teaching with Streaming Media in Higher Education

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ABSTRACT
In the not too distant future, university students will have trouble recalling a pre-YouTube or pre-podcast world. While streaming media in those formats has become ubiquitous in many areas of their lives through ease of use and dissemination, how does it factor into their learning? Should instructors in higher education utilize students’ engagement with streaming media as teachable opportunities? Or, in lieu of instructors intentionally choosing to use streaming media, what about the potential for it to be imposed on them for logistical or operational reasons and the effects of that on student learning and teaching? Building upon prior work that has been done on the use of streaming media in higher education (Chang, 2007; Phillips et al., 2007; Shepherd, 2003; Foertsch et al., 2002; Brahler et al., 1999), this chapter will examine it from several instructors’ perspectives with a focus on their decision-making processes, implementations, challenges, and opportunities. From their experiences, a set of grounded guidelines for using streaming media in higher education will be developed and offered as starting points for others interested in trying this in their teaching.

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INTRODUCTION

In the not too distant future, many university students will have trouble recalling life before on-demand where most of one’s needs were not individually delivered in the form and at the time desired. The spread of customer as delivery point has penetrated most aspects of the developed world such that many intellectual products are either portable or readily retrievable. Through searchable databases, pay-per-view films, podcasts, and YouTube, physical attendance is no longer required in order to enjoy the content of a particular sporting event, religious service, or music concert. This type of delivery, streaming media, is defined by continuously present and transmitted text, image, data, voice, sound bytes, and video using a telecommunications network. While streaming media has become ubiquitous in many areas of life through ease of use and dissemination, how does it factor into the field of higher education? Should instructors in higher education utilize students’ engagement with streaming media as teachable opportunities? Or, in lieu of instructors intentionally choosing to use streaming media, what about the potential for it to be imposed on them for logistical or operational reasons (e.g., an instructor who is required to teach two concurrent sessions with one face-to-face (FTF) and the other by video due to classroom size or scheduling constraints) and the effects of that on student learning and teaching?

The short answer to the first question above is that online learning, with streaming media being a possible method of its delivery, is increasingly becoming an economically powerful factor in higher education. The University of Phoenix’s distinction of having the largest student enrollment of any higher education institution in the world suggests that online learning, and its related delivery methods, has been accepted by many as a legitimate and desirable way to engage in learning. The answers to the latter questions are a bit more difficult to definitively establish.

As the following review of literature about streaming media in higher education demonstrates, the research in this area appears to have been focused on how to teach with streaming media and less intent on exploring the ways in which instructors have come to use it and their beliefs about its effectiveness on supporting student learning. Within the research there are valuable tips and pointers as in the work by Brahler et al. (1999), but given the changing nature of technology, perhaps a less detailed view of using streaming media is more applicable over time. In order to evaluate the established suggestions about teaching with streaming media from the perspectives of instructors, three case studies will be presented and analyzed following the literature review.

REVIEW OF RELEVANT LITERATURE ABOUT STREAMING MEDIA IN HIGHER EDUCATION

In many instances, higher education instructors have quickly responded to new paradigms of training and information presentation for their teaching activities. As a result, large volumes of data are now streamed in educational contexts. In streaming, large amounts of textual, auditory, and visual data, often in conjunction and simultaneously, are distributed and sent in the form of packets that are then assembled in the client computer and can be either assembled and downloaded, or allowed to “stream” and reload on demand. The availability of high speed networks, new methods of data transfer that allow small quantities of data packaged in tandem, and the compression of data has opened up a new dimension of higher education. The purpose of this chapter is to first provide a brief description of the defining characteristics of streaming media, illustrate the rationale for its deployment and usage in higher education, outline the key limitations, and lay out a roadmap of its usage. Further, we shall present three case stud-