Chapter 7  
Toward LessonCapture:  
A New Approach to Screencasting and Lecture Capture

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ABSTRACT  
LessonCapture is an approach to the creation and recording of presentation content (course lecture or demonstration), delivered either face-to-face or via screen-recording, and based on effective public speaking, presentation design, and multimedia learning principles. The combination of these principles with particular procedures and practices helps to ensure effective learning and reusability of content. The field of education faces many challenges: budgets, time limitations, new delivery approaches, and effectiveness. LessonCapture is one way to help maximize the return on the financial investment in recording technology and the instructor time needed to create high quality instructional materials.

INTRODUCTION  
Through years serving as an instructor, qualitative course feedback was collected from regarding advice they would give to future students taking the course. The comments below apply to screencasting and lecture recording.

The [screencasts] that Steve put together were invaluable!!! Review them, take notes, and review them again. The picture was worth a thousand words - and the added words made it all the more clear.

Watch the [recorded] lectures first thing. Then use them again, as you need to. Within a few minutes of seeing and hearing Steve go through steps you get an idea of what the whole unit or week is about.

Listen to the [recorded] lectures first as they are very helpful. I could hear Steve teaching, and something about his voice makes it evident that

DOI: 10.4018/978-1-4666-3962-1.ch007
he is enjoying this class and that he really wants you to enjoy it as well.

I found the video lectures one of the most helpful parts of this class. Reading alone does not always make technology concepts clear, but seeing someone else using the different applications is indispensable. In an online course it can be nice to hear a human being on the other side of the computer.

With few exceptions, every instructor using screencasting, lecture capture, and podcasting to deliver instructional materials to their students has a similar set of comments. We know anecdotally and via the literature that students appreciate having these types of materials available for face-to-face, online, or blended courses.

Being involved with the lecture recording process as a full-time instructor, a human resources trainer, and an instructional technology designer has provided ample opportunity to evaluate a wide variety of recordings and to assess the direct and indirect impact on those who view them. New developments in instructional delivery, educational initiatives, instructor responsibilities, and approaches to instructional video technology point to the need for analyzing how we design and record these lessons in a more critical way -- beyond the idea of recording instruction as a single event.

LessonCapture approaches the creation and recording process that will have a beneficial impact on recorded presentations, whether lectures or screencasts. By combining present best practices, lessons from public speaking and presentation design, and principles of multimedia learning, sessions can be recorded that capture the attention of our learners, better enable them to retain the material presented, and offer developers of the material possibilities to scale usage.

BACKGROUND
Definitions and Approaches to Capturing Content

There are many tools used to educate students in face-to-face, online, and blended learning classrooms. In order to achieve course objectives, instructors may lecture, provide demonstrations, assign readings, display videos, facilitate discussions, conduct quizzes and exams, assign projects, and have students write papers.

One of the core tools of instruction is the lecture (Jones, 2007). Although often maligned in education literature for being neither efficient nor effective (Anderson & Garrison, 1998), the lecture is a robust tool that “persists as a pedagogical form not simply as a matter of inertia and tradition but due to its flexibility and adaptability in response to changes in media and technology” (Friesen, 2011). Instructors frequently include demonstrations in lectures to show a process or procedure, which may be either screen-based if related to computer software and programming techniques or physical in nature to demonstrate a process in chemistry or kinesiology, for instance. For the consistency within this chapter, course lectures and demonstrations will be broadly referred to as presentations.

The concept of capturing a presentation is not new -- captured content has been available for generations via correspondence courses using audio cassettes and VHS tapes. Lecture capture is “an umbrella term describing any technology that allows instructors to record what happens in their classrooms and make it available digitally” in the form of a presentation (ELI, 2007).

A preponderance of sites and services such as iTunesU, college and university YouTube channels, TED, Udacity and Coursera, have brought