



Create Video Demonstrations with Screen Recording Software

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"My one pupil has begun his work with me, and I will give you a description how the lecture is conducted. It is the most important point, you know, that the tutor should be dignified and at a distance from the pupil, and that the pupil should be as much as possible degraded.... So I sit at the further end of the room; outside the door (which is shut) sits the scout; outside the outer door (also shut) sits the sub-scout: half-way downstairs sits the sub-sub-scout: and down in the yard sits the pupil.

"The questions are shouted from one to the other, and the answers come back in the same way—it is rather confusing till you are well used to it."

— Lewis Carroll [Charles Lutwidge Dodgson] (1832–1898), British author, mathematician, clergyman. Letter, October 26, 1881, to Marion Richards.



Agenda

- What is a screen recorder?
- Why use a screen recorder?
- Instructional effectiveness
- Point of view of this presentation
- Two popular screen recorders
 - TechSmith Camtasia Studio
 - Macromedia Captivate
- Applications
- Resources
- Conclusion



What Is a Screen Recorder?

- "Software for recording screen activity and mouse movement to create movies and interactive demos. . . useful for creating training materials, software tutorials, presentations, and product demonstrations. Many of these screen recorders can also record audio from your computer speakers or a microphone, and some even include editing capabilities for enhancing your screen movies."
 - Adapted from About.com, <http://graphicssoft.about.com/od/screenrecorders/>
- Also known as **screencams** or **screencasting** tools



Why Use a Screen Recorder?

- Advantages for students
 - Clearer and more engaging than written instructions or static screen shots
 - "Just in time" review outside the classroom/lab
 - Can replay all or part as many times as needed
 - Can adjust pacing to individual preferences
 - Get material even if absent (or inattentive)
 - "Anytime/anywhere" learning
- Advantages for teachers
 - Perform demos in a distance learning environment
 - Can perfect and edit demos before delivery
 - Teach "infrastructure" skills without using class time
 - Demo software/hardware not installed on classroom workstation
 - Fewer questions
 - Supports reuse



Instructional Effectiveness

- Pilot study used screen recordings to augment an online nursing research course at the University of South Australia
- Students reported that recordings:
 - "Created a sense of connectedness"
 - "Helped them understand the course requirements"
 - "Improved their comprehension of content"
- Results suggest that screen recordings "can increase teaching presence and thus improve students' educational experiences"
- Lecturer's "deliberately informal and comfortable style established a clear rapport with students that increased their sense of connection"



Barnes, L., Scutter, S., & Young, J. (2005). Using screen recording and compression software to support online learning. *INNOVATE* 1(5). <http://www.innovateonline.info/index.php?view=article&id=52>

Point of View of This Presentation

- Instructors are busy people
- Most instructors are not multimedia professionals
- Students value clarity, authenticity and timeliness over slickness
- *Therefore...*
 - Creating effective, informal "rough cut" material quickly is more important than crafting polished, high-gloss presentations



Two Popular Screen Recorders



Version 3.1
<http://www.techsmith.com/camtasia.asp>



Version 1.01
<http://www.macromedia.com/software/captivate/>



Camtasia Studio™

- Recording capability
 - Full-motion, continuous, real-time screen recording
 - Can also record voice narration and/or system audio
 - Can also record Webcam image for Picture-In-Picture or side-by-side display
- Editing and enhancement
 - Cursor highlighting
 - Manually added callouts and other annotations
 - Zoom and/or pan
 - Add title slides and still images
 - Cut or splice video and/or audio tracks
 - Add or change narration during editing



Camtasia Studio™ (continued)

- Output formats
 - Video: AVI, Windows Media, RealMedia, QuickTime
 - Macromedia Flash
 - Animated GIF
 - Self-contained EXE
- Advanced features
 - Toolbar for PowerPoint recording
 - Menus and Table of Contents
 - Clickable hotspots
 - Interactive quizzes
 - SCORM 1.2 compliant
- Academic Pricing: \$149.00



Camtasia Studio™ System Requirements

- Authoring
 - Microsoft Windows 2000 or XP
 - Microsoft DirectX 9 or later
 - 1.0 GHz CPU (2.5 GHz recommended for PowerPoint and Webcam recordings)
 - 256MB RAM (1 GB recommended)
 - 40 MB disk space
 - Sound card, microphone and speakers/headset
 - Webcam for PIP recording
- Playback
 - Any system supporting AVI, Windows Media, RealMedia, QuickTime or Flash
 - Corresponding player software required



Camtasia Studio Examples

- [Update DeVry eLearning Platform Email](#)
 - Screen recording + narration
- [Hybrid Course Introduction](#)
 - PowerPoint recording + PIP narration
- [Visio Crow's Foot Entity Relationship Diagram](#)
 - Screen recording + narration + callouts



Macromedia Captivate™



- Recording Capability
 - Animated snapshots triggered by events
 - Also does full-motion continuous recording as an alternate mode
 - Can also record voice narration
- Editing and enhancement
 - In snapshot recording mode, automatically creates discrete slides for easy editing
 - Automatically adds callouts with text instructions for each user action
 - Add title slides and still images
 - Modify, replace or rearrange slides, or change timing
 - Add or change narration during editing



Macromedia Captivate™ (continued)

- Output formats
 - Macromedia Flash
 - Self-contained EXE
 - Exports still images of slides to Word for handouts
- Advanced features
 - Imports PowerPoint presentations
 - Menus and Table of Contents
 - Clickable hotspots
 - Interactive quizzes
 - SCORM 1.2 and SCORM 2004 certified
- Academic Pricing: \$199.00



Macromedia Captivate™ System Requirements

- Authoring
 - Windows 2000 or XP
 - 600 MHz Pentium III CPU
 - 128 MB RAM (256 MB recommended)
 - 100 MB available disk space
 - Sound card, microphone and speakers/headset
- Playback
 - Any system supporting Flash
 - Flash plugin required



Captivate Example

- [Submitting an Assignment through the DeVry eLearning Platform Dropbox](#)
 - Screen recording with automatic callouts (no narration)





Camtasia vs. Captivate



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|--|--|
| <ul style="list-style-type: none">• Camtasia<ul style="list-style-type: none">– Pros<ul style="list-style-type: none">• Full-motion recording captures all mouse moves• PIP Webcam recording• Cursor highlighting• Zoom & pan• Varied output formats• Lower price– Cons<ul style="list-style-type: none">• Editing required for mistakes and dead spots• Some editing operations are cumbersome• Flash output creates many files |  <ul style="list-style-type: none">• Captivate<ul style="list-style-type: none">– Pros<ul style="list-style-type: none">• Snapshot recording eliminates dead time• Automatic callouts• Easy slide-based editing• Easy to fix mistakes without re-recording• Clean single-file Flash output• Relaxed system requirements– Cons<ul style="list-style-type: none">• Snapshots miss some actions and screen changes• Flash is only output option |
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Applications

- Teach use of basic course tools
 - Learning Management System, word processor, spreadsheet, drawing tools, etc.
- Illustrate assignment formats and procedures
 - Improve consistency
 - Speed grading
- Record PowerPoint lectures
- Demonstrate any process that can be performed using a computer application
 - Writing using a word processor
 - Accounting/finance using a spreadsheet
 - Almost anything using a Web browser



Resources

Vendors	http://www.techsmith.com/camtasia.asp http://www.macromedia.com/software/captivate
Research	<p>Barnes, L., Scutter, S., & Young, J. (2005). Using screen recording and compression software to support online learning. <i>INNOVATE</i> 1(5). http://www.innovateonline.info/index.php?view=article&id=52</p> <p>Weber, P., & Epstein, W. C. (2003). An innovative approach to teaching software utilizing computer screen recording technology. In Weigand, C. L. (Ed.), <i>From email to earthquakes: On teaching and learning with technology in the California State University</i>. Long Beach, CA: California State University Press.</p>
Reviews	<p>Collingbourne, H. (2005, June). Camtasia Studio 3. <i>Bitwise Magazine</i>. http://www.bitwisemag.com/copy/reviews/software/screencasts/camtasia3/camtasia3.html</p> <p>Smith, R. (2006, January). Web authoring: Macromedia Captivate review. <i>Devarticles</i>. http://www.devarticles.com/ca/Web-Authoring/Macromedia-Captivate-Review/</p>
Slides & More Info	http://www.RussellWalker.com/TechEd2006/



Conclusions



"Teaching is a performing art."
 — Bob Ross, professional speaker and humorist

- Screen recordings can augment almost any course
- Time-consuming, highly polished productions are not required
 - Short, informal "rough cuts" with minimal scripting and editing can connect with students
- Both Camtasia and Captivate are useful tools
 - Choice depends on individual needs and preferences
- Instructor enthusiasm and creativity are key


