GUERILLA LECTURE CAPTURE

2010 DePaul Faculty Teaching & Learning Conference

James Moore

www.depaul.edu/~jmoore/guerilla/

Introduction

Some of the content within this document repurposes a workshop given on August 5, 2009, at the 25th Annual Conference on Distance Teaching & Learning:

www.depaul.edu/~jmoore/barefoot/

Presentation materials and supplementary videos can be found at:

www.depaul.edu/~jmoore/guerilla/

Abstract

In this lively presentation learn how you could use one of three affordable technologies to capture your live classes and then share the results as:

Podcasts

Vodcasts

Pencasts

The technology is lightweight and portable. You can use guerilla lecture capture to improve the way you teach and reduce the cognitive load on your students.

Overview

Research has indicated that typical face-to-face teaching is not the most effective way for students to learn. The typical classroom experience is not always conducive to learning. Information is rarely retained after a conventional lecture (Weiman, 2005). One strategy to assist students is to provide lecture capture, in which classroom technology is used to create an audiovisual recording that students can access to reinforce learning and reduce the cognitive load. There are excellent tools out there for academic institutions and trainers to choose from, such as

- Sonic Foundry Mediasite (http://www.sonicfoundry.com),
- Tegrity Campus (http://www.tegrity.com),
- Echo360 (http://www.echo360.com) and
- Panopto Socrates CourseCast (http://www.panopto.com).

However, these solutions involve capital outlay and the involvement of IS/IT to fully support the endeavor.

At times, faculty may need a lightweight, portable solution that they can use independent of institutional support that will work anywhere they teach. I refer to this process as guerilla lecture capture. Everything can be carried in a laptop bag. The hardware and software is affordable. The processes are straightforward and easy to follow for anyone with minimal computer experience.

Vodcasting is a refinement of podcasting. While a podcast is a series of audio files that someone might subscribe to, a vodcast is a video podcast, or a series of video files. Video provides a richer means of communication and reduces ambiguity. By providing vodcasted supplements to face-to-face classes, I find significant improvements to the learning process. Since the material I cover in class is now available for student review, the students who miss class—or have a learning disability, or are non-native English speakers—are at less of a disadvantage. The knowledge that I am being recorded also pushes me into preparing my classes with a greater degree of attention to detail and challenges me to teach to the best of my ability. There are issues with lecture capture, but I feel the advantages more than outweigh the disadvantages.

For over four years, I have been recording every lecture and presentation I give. Not every tool I have used has worked exactly as I wished, but I now find myself in a situation where I have three approaches that allow me to easily record everything I cover in the classroom: a simple way of podcasting audio recordings, a comprehensive method of vodcasting what I share on the projector, and lastly, a quick method of pencasting adhoc overhead projector (OHP) presentations.

Part 1: Basic Podcasting (Sansa Clip)

I carry a Sansa Clip with me at all times. The Sansa Clip is a small MP3 player with an integrated audio recorder and FM radio. I believe this to be about the best all-purpose device for recording audio in the classroom (and beyond). The Sansa Clip works as my backup device; if any of the other recording methods fail, I at least have a high-quality audio recording.

The Sansa Clip can be affixed to a shirt or jacket, thus allowing the presenter to walk around without fear of moving out of recording range. The Sansa Clip has the capacity to record many hours of content. Recordings are saved as high-quality WAV files and can be imported onto a computer via a USB cable. The USB connection charges the Sansa Clip's battery. Typically you can expect somewhere between 12 to 15 hours of recording time on a full charge.

The Sansa Clip is manufactured by SanDisk (http://www.sandisk.com) and is available in models with internal capacity ranging from 1GB (5–6 hours of audio storage) to 8GB (40–48 hours of audio storage). Prices start at about $20.

I follow a three-stage process for creating and distributing my audio recordings:

1. **Recording**
    - As soon as I start speaking, I start recording. At the beginning of each break I stop recording. At the end of the class I have several WAV files.
2. **Importing and Editing**
    - After class I connect the Sansa Clip to my computer. Each WAV file is imported into Audacity, which I use to trim the recording and then export it as an MP3 file. I append basic metadata (title, date, etc.). The entire process takes no longer than a few minutes.
3. **Distribution**
    - If I need to distribute the recordings, I upload them to iTunes U. Other options for distribution include personal webservers, Learning Management Systems, etc.

Creating a Recording Using the Sansa Clip

Preparing the Sansa Clip

1. Switch on the Sansa Clip
2. Press the **“Home”** button

3. Navigate to **“Voice Recording”** by pressing the **“Down”** button (the available options are Music - FM Radio - Voice - Settings)
4. Press the **“Select”** button
5. Switch off the Sansa Clip
6. You may want to recharge the Sansa Clip’s batteries (by connecting the USB cable)

Step 1: Recording

1. Switch on the Sansa Clip — **"Record Now"** should be highlighted

2. Press the **"Select"** button to start your recording

3. Slide **"Hold"** into the locked position (orange) to prevent accidental changes to your recording

4. Fix the Sansa Clip to your shirt

5. *Make your presentation...*

6. Slide **"Hold"** into the unlocked position

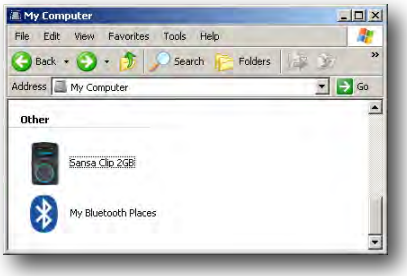
7. Press the **"Select"** button to stop the recording

8. Select **"Yes"** to **"Save Recording?"**

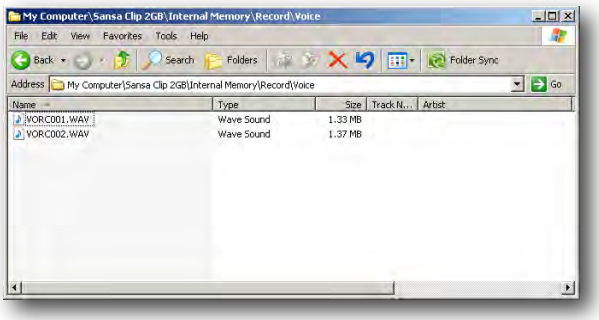
9. Switch off the Sansa Clip

Step 2: Importing and Editing (Windows)

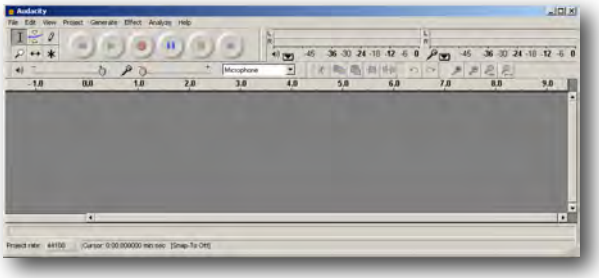
1. Connect the Sansa Clip to your computer with a USB cable. The Sansa Clip will show up as an external drive in My Computer



2. Navigate to **“Internal Memory / Record / Voice”**
3. You should see a series of files with the naming convention *VORC001.WAV*. These are your audio recordings.



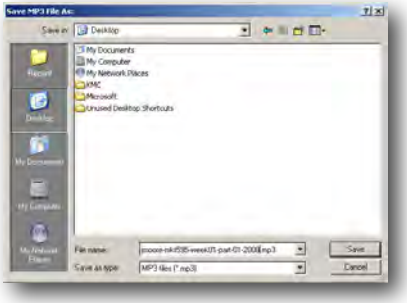
4. Start **Audacity**
5. Open one of your Sansa Clip recordings (**File / Open** and then browse to **SANSA CLIP / Internal Memory / Record / Voice / VORC001.WAV** and click **“Open”**)



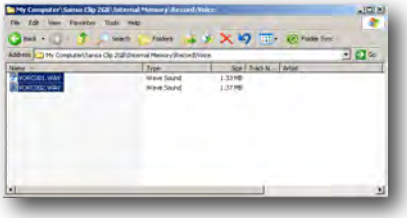
6. The beginning and end of your recording will contain dead air and noise. Press **“Play”** to identify where those areas are

7. Highlight the areas you wish to remove (by clicking and dragging your mouse) and then press **“Delete”** or **“Backspace”** on the keyboard

8. Once you are happy with your recording, click on **“File / Export as MP3”**
9. Type in an appropriate name for your recording
10. Click on “OK”

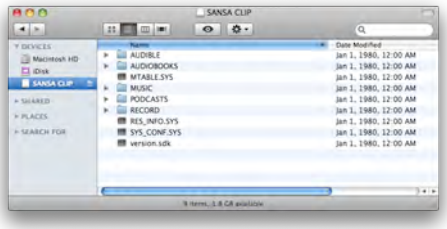


11. Delete the original WAV files from your Sansa Clip by highlighting them in Windows Explorer and pressing **“Delete”** on the keyboard
12. Eject the Sansa Clip from your computer

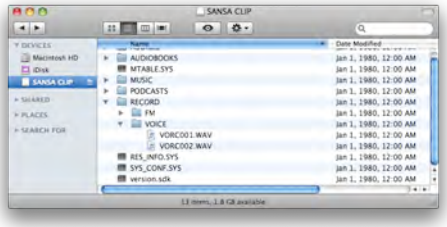


Step 2: Importing and Editing (Mac)

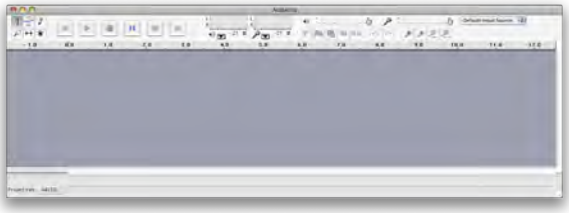
1. Connect the Sansa Clip to your computer with a USB cable. The Sansa Clip will show up as an external drive in the Finder



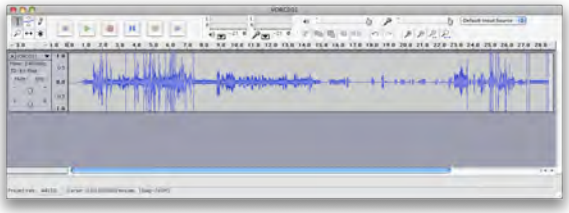
2. Navigate to **“RECORD / VOICE”**
3. You should see a series of files with the naming convention *VORC001.WAV*. These are your audio recordings. *The Date Modified* information associated with these files will be incorrect (typically Jan 1, 1980)



4. Start **Audacity**



5. Open one of your Sansa Clip recordings (**File / Open** and then browse to **SANSA CLIP / RECORD / VOICE / VORC001.WAV** and click **“Open”**)
6. The beginning and end of your recording will contain dead air and noise. Press **“Play”** to identify where those areas are

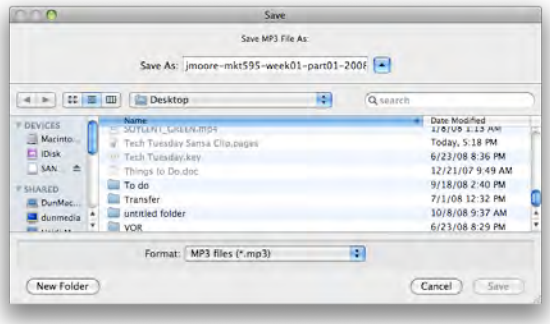


7. Highlight the areas you wish to remove (by clicking and dragging your mouse) and then pressing **“delete”** on the keyboard

8. Once you are happy with your recording, click on **“File / Export as MP3”**

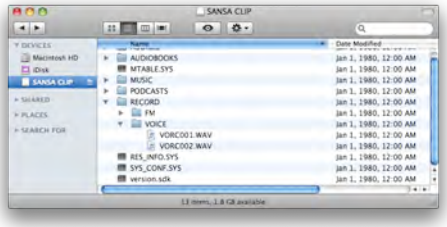
9. Type in an appropriate name for your recording

10. Click on “OK”



11. Delete the original WAV files from your Sansa Clip by highlighting them in the Finder and then dragging to the Trash

12. Eject the Sansa Clip from your computer

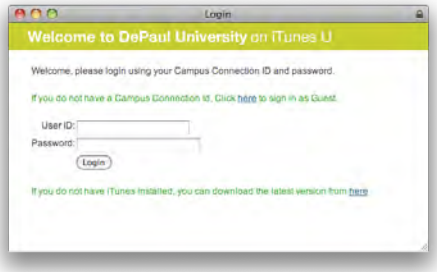


Step 3: Upload to iTunes U (DePaul University Example)

NOTE: You will need to have an account on iTunes U.

1. Using a Web browser, go to http://itunes.depaul.edu
2. Click on **"Visit DePaul University on iTunes U now"** (the text below the photographs)

3. Type in your Campus Connection **username** (user ID) and **password** and then click on **Login**

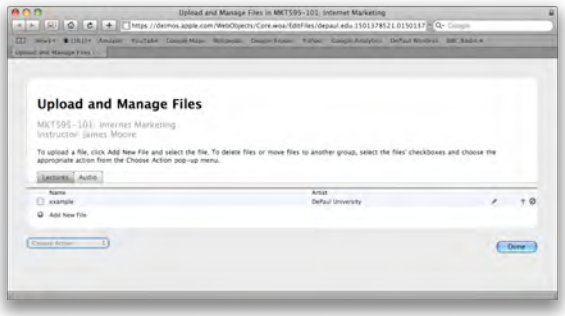


4. This should open iTunes U on your computer

5. Under **Academics**, click on **College of Commerce**
6. Click on your course

7. Click on **Upload and Manage Files**

8. Click on **Add New File**
9. **Browse** to the file that you want to upload and click on **Choose**



10. When your file has finished uploading, you can click on **Done**
11. Your files are now on iTunes U for your students to download

Installing Audacity

You can download Audacity from:

http://audacity.sourceforge.net

You can also download a portable Windows version, which will run off a USB drive from:

http://portableapps.com/apps/music_video/audacity_portable

A portable version for Mac OS X can be downloaded from:

http://www.freesmug.org/portableapps/

It is recommended that you restart your computer after installation has been completed. Audacity offers a comprehensive Help file.

MP3 Example Metadata Template (for Sansa Clip recording)

Naming Convention:
jmoore-mkt-595-week1-part1.mp3

Title:
MKT 595 Week 1 Part 1

Artist:
James Moore

Album:
MKT 595 Week 1

Track Number:
01

Genre:
Other (or Education)

Comments:
Class Recording (for more information visit http://www.depaul.edu/~jmoore/)

Note: Metadata template for MP3s edited in Audacity.

Part 2: Vodcasting (ScreenFlow)

My favored set-up is to present on an Apple MacBook Pro laptop. I use Telestream ScreenFlow (http://www.telestream.net) to record whatever materials I present in the classroom. Audio is captured by connecting a Zoom H2 microphone (http://www.samsontech.com) via a shielded USB cable to my laptop. The Zoom H2 has four microphones positioned in such as way as to allow 360-degree recording. Generally this is sufficient coverage for a typical classroom. If the recording is not adequate, I can import my Sansa Clip audio.

If I have to present on a Microsoft Windows machine, I can use Camtasia Studio (http://www.techsmith.com) as an alternative to ScreenFlow. However, Camtasia does not have the instant encoding capability or rich post-production options that ScreenFlow has. I can also Screenflow a Remote Desktop session to a Microsoft Windows machine if I need to demonstrate Windows software.

To enhance the completed video, I split-screen classroom footage with whatever material is displayed on the projector. At present the only way to achieve this is by importing video from a standalone camera and combining the videos at the editing stage. The camera I currently prefer is the Creative Labs Vado HD (http://us.creative.com). The particular model has an 8GB capacity, which allows me to store up to eight hours of video (at 640x480 pixels). The Vado HD has a replaceable, removable battery with an approximate recording time of two hours. The combination of generous video storage and removable batteries in a small, pocketable package ensures that I am easily able to record any class at a moment's notice. Finding a suitable location to place the camera in the classroom can be problematic. I carry a small portable tripod, the Manfrotto 785 Modo Maxi (http://www.manfrotto.com), which fits in my briefcase, as well as two desktop/mobile tripods—the Gorillapod (http://www.joby.com) and the UltraPod II (http://www.pedcopods.com). The desktop/mobile tripods can be used to affix the camera to walls and ceiling projections.

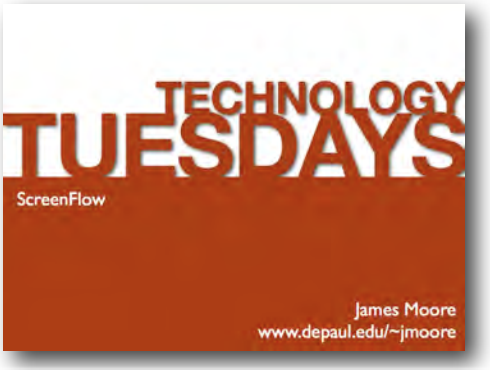
Again, the three-stage process is as follows:

1. **Recording**
    - As soon as I start speaking, I start recording the desktop with ScreenFlow. The Sansa Clip is used for audio backup.
2. **Importing and Editing**
    - After class I open the ScreenFlow recordings and import video footage from the Vado HD. I trim and synchronize the recordings. This part of the process takes less than five minutes.
    - The edited recordings are exported as QuickTime MOV files. Exporting each recording can take 30 to 45 minutes. However, this can take place in the background.
    - I use an Apple Automator (http://www.apple.com/macosx/features/300.html#automator) workflow to append appropriate metadata to the QuickTime files and then send these to QuickTime Professional (http://www.apple.com/quicktime/) to export as M4V files, which are suitable for iTunes, iPods and Apple TVs.
3. **Distribution**
    - I distribute the videos in at least two formats: streamed and downloadable. The downloadable files (M4V) are uploaded to iTunes U, and streaming takes place by uploading the Quicktime files (MOV) to Ooyala (http://www.ooyala.com).
    - Streaming via Ooyala allows me to prevent redistribution of materials and to access comprehensive viewing metrics. Once a file has been uploaded and converted to Ooyala, I simply paste some HTML code into my web pages. The videos are then viewable in a web browser using the Adobe Flash plug-in.
    - Downloadable files via iTunes U is preferred by most students. However, this raises the potential issue of redistributing copyrighted material. Guidance on how to follow either the Fair Use Guidelines for Educational Multimedia or the TEACH Act can be confusing (Taleb, 2007).

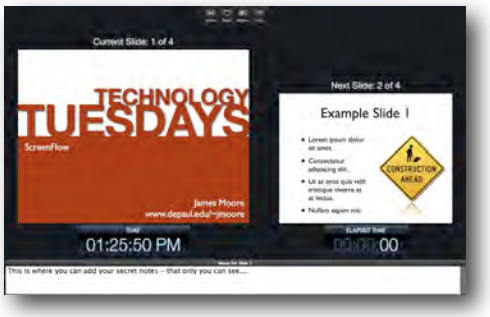
ScreenFlow Alternatives (OS X)

- Camtasia Studio for Mac
  http://www.techsmith.com/macdevelopment.asp
- iShowU HD
  http://store.shinywhitebox.com
- Screen Mimic
  http://www.decimus.net
- Snapz Pro X
  http://www.ambrosiasw.com/utilities/snapzprox/

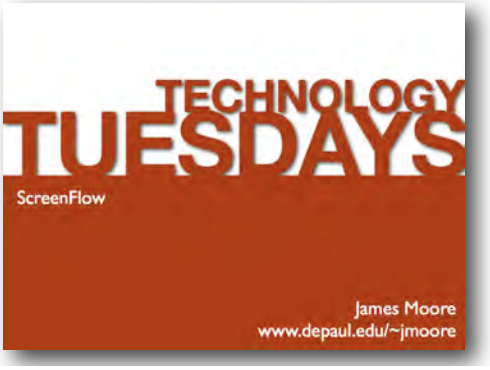
Recording A Presentation - Using An External Monitor



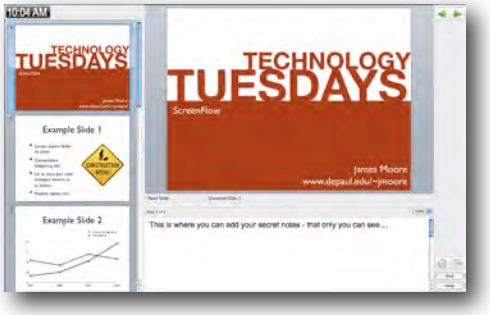
External Monitor (Keynote)



Primary Monitor (Keynote)



External Monitor (PowerPoint)



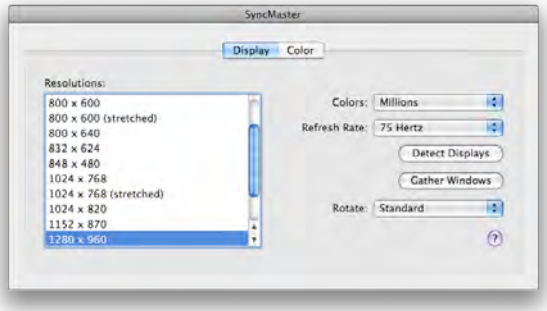
Primary Monitor (PowerPoint)

Ideally, you should record all presentations using an external monitor. This way you can record what is presented on the external monitor, but use the primary monitor as your workspace. The advantage of this approach is that you can read “hidden” notes in your presentations and preview upcoming slides as you record your video.

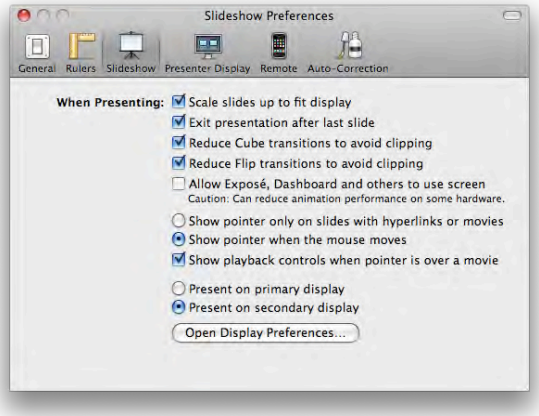
Recording With Keynote (External Monitor)

1. Open **System Preferences.**
2. Click on **Displays**.

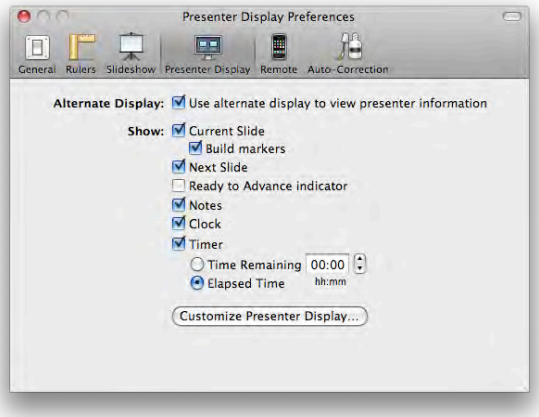
3. On the window that represents the secondary display, change the **Resolutions** values to **1280 x 960**.
4. Click on the **Color LCD** window.
5. Click on **Arrangement**.
6. Uncheck **Mirror Displays**
7. Close **System Preferences**.



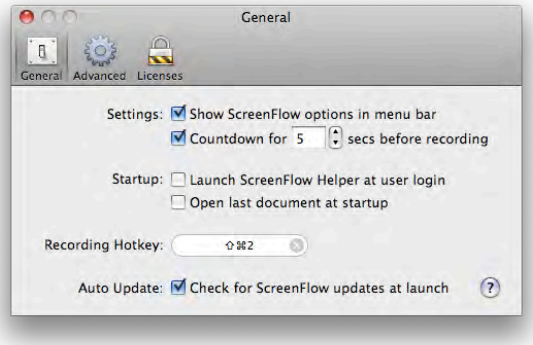
8. Open your **Keynote presentation**.
9. Click on **Preferences.**
10. Click on **Slideshow** and enable these settings:
    - **Scales slides up to fit display**.
    - **Exit presentation after last slide**.
    - **Reduce Cube transitions to avoid clipping**.
    - **Reduce Flip transitions to avoid clipping**.
    - **Show pointer when the mouse moves**.
    - **Show playback controls when pointer is over a movie**.
    - **Present on secondary display**.



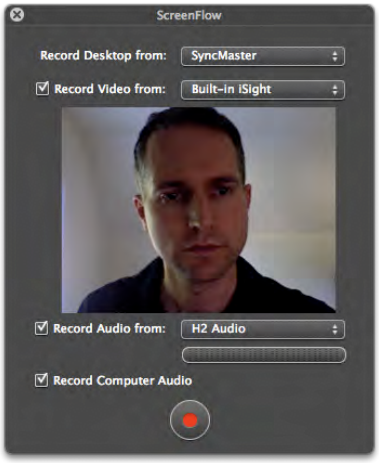
11. Click on **Presenter Display** and enable these settings:
    - **Use alternate display to view presenter information**.
    - **Show: Current Slide**.
        - **Build markers**.
    - **Show: Next Slide**.
    - **Show: Notes**.
    - **Show: Clock**.
    - **Show: Timer**.
        - **Elapsed Time**.



12. Close **Preferences.**
13. Open **ScreenFlow**.
14. Open **Preferences** and enable these settings:
    - **Show ScreenFlow options in menu bar**.
    - **Countdown for 5 secs before recording**.
15. Close **Preferences**.
16. Click on **File / New Recording**.



17. In the ScreenFlow window enable these settings:
    - **Record Desktop from: <secondary display>**
    - **Record Video from: Built-in iSight**
    - **Record Audio from: <external microphone>**
    - **Record Computer Audio**
18. Position the laptop so your face is appropriately framed in the preview window.
19. Then click on the red **Record** button.



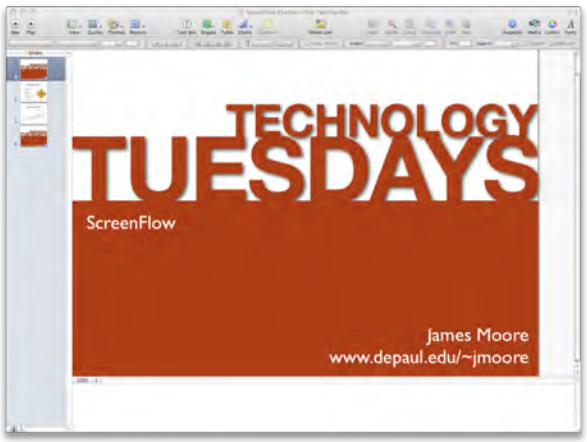
20. Wait for the countdown timer to finish.

21. Return to your **Keynote** presentation and click **Play**.
22. Make your presentation as normal.

    Tips

    - Speak clearly and precisely.
    - Ensure that you are in a quiet environment.
    - Enjoy the experience!

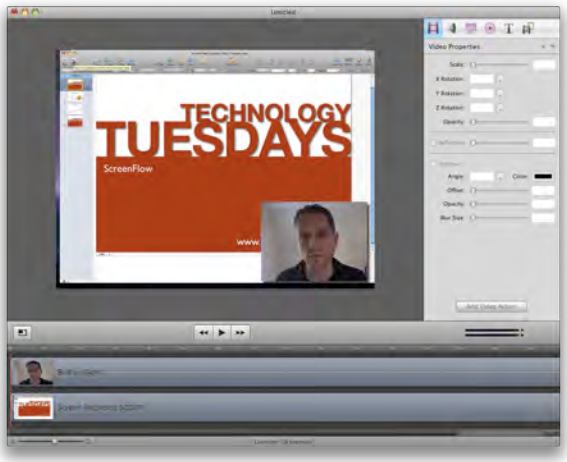
23. When you are finished presenting, click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⇧⌘2)



24. Your **ScreenFlow** recording will appear after you stop recording. Click on **File / Save As** and save the recording into an appropriate place.

    Tips

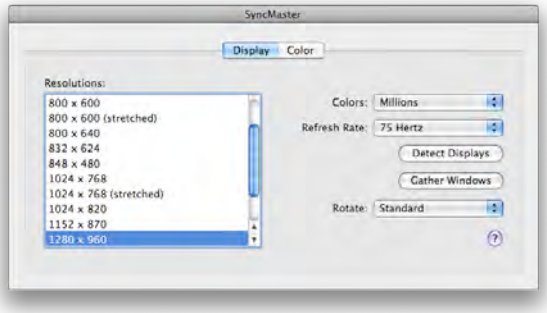
    - Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
    - ScreenFlow does not autosave. Remember to save your file periodically.
    - Create a title slide for the first and last pages of your presentation.



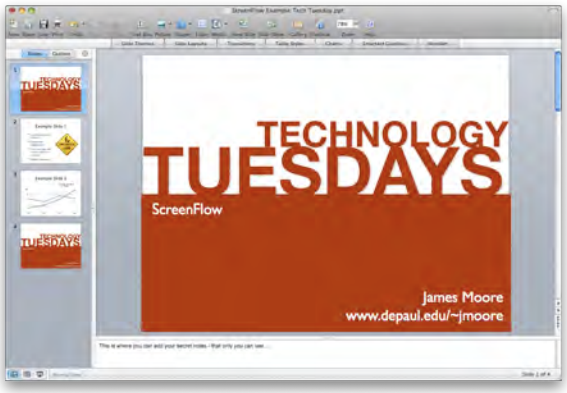
Recording With PowerPoint (External Monitor)

1. Open **System Preferences.**
2. Click on **Displays**.

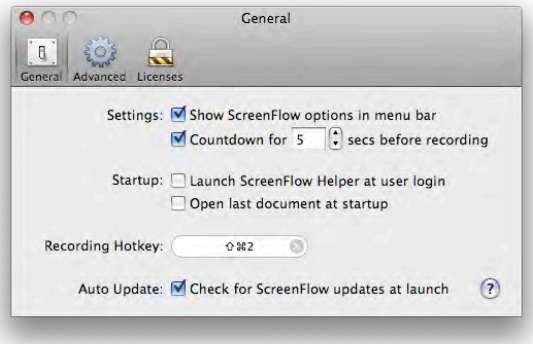
3. On the window that represents the secondary display, change the **Resolutions** values to **1280 x 960**.
4. Click on the **Color LCD** window.
5. Click on **Arrangement**.
6. Uncheck **Mirror Displays**
7. Close **System Preferences**.



8. Open your **PowerPoint presentation**.



9. Open **ScreenFlow**.
10. Open **Preferences** and enable these settings:
    - **Show ScreenFlow options in menu bar**.
    - **Countdown for 5 secs before recording**.
11. Close **Preferences**.
12. Click on **File / New Recording**.



13. In the ScreenFlow window enable these settings:
    - **Record Desktop from: <secondary display>**
    - **Record Video from: Built-in iSight**
    - **Record Audio from: <external microphone>**
    - **Record Computer Audio**
14. Position the laptop so your face is appropriately framed in the preview window.
15. Then click on the red **Record** button.

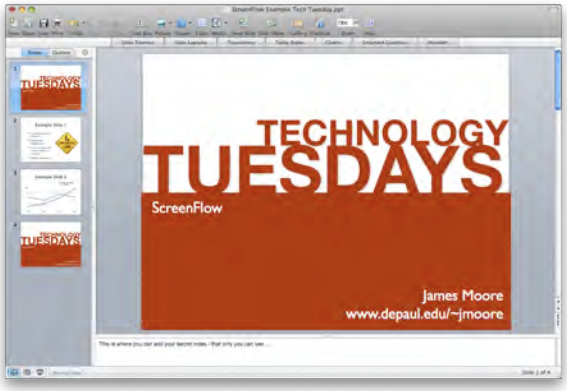
16. Wait for the countdown timer to finish.

17. Return to your **PowerPoint** presentation and click **Play Slide Show**.
18. Make your presentation as normal.

    Tips

    - Speak clearly and precisely.
    - Ensure that you are in a quiet environment.
    - Enjoy the experience!

19. When you are finished presenting click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⇧⌘2)



20. Your **ScreenFlow** recording will appear after you stop recording. Click on **File / Save As** and save the recording into an appropriate place.

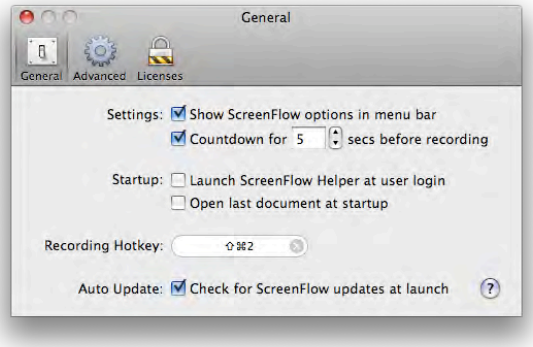
    Tips

    - Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
    - ScreenFlow does not autosave. Remember to save your file periodically.
    - Create a title slide for the first and last pages of your presentation.

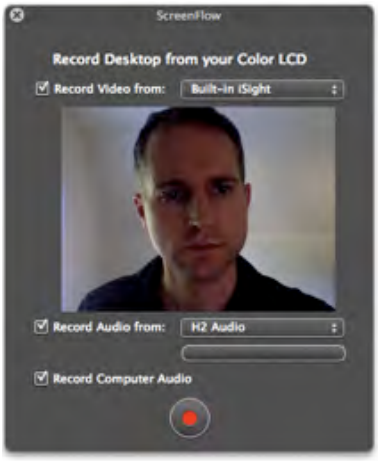
Recording A Presentation - Single Screen

Recording With Keynote

1. Open **ScreenFlow**.
2. Open **Preferences** and enable these settings:
   - **Show ScreenFlow options in menu bar**.
   - **Countdown for 5 secs before recording**.
3. Close **Preferences**.
4. Click on **File / New Recording**.



5. In the ScreenFlow window enable these settings:
   - **Record Video from: Built-in iSight**
   - **Record Audio from: <external microphone>**
   - **Record Computer Audio**
6. Position the laptop so your face is appropriately framed in the preview window.
7. Then click on the red **Record** button.



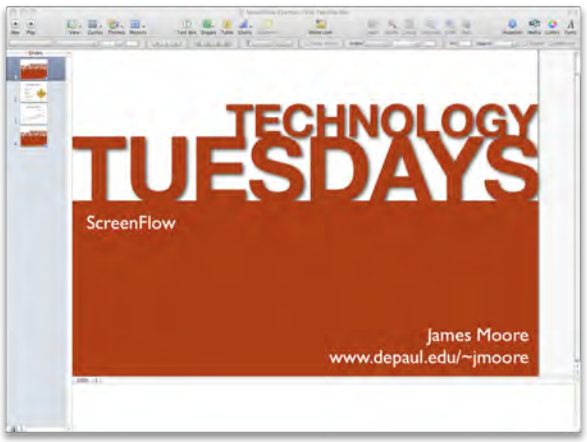
8. Wait for the countdown timer to finish.

9. Return to your **Keynote** presentation and click **Play**.
10. Make your presentation as normal.

    Tips

    - Speak clearly and precisely.
    - Ensure that you are in a quiet environment.
    - Enjoy the experience!

11. When you are finished presenting click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⇧⌘2)



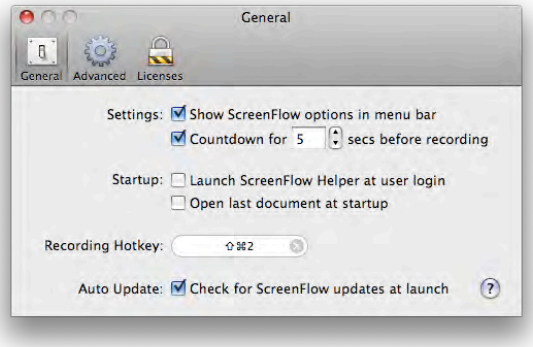
12. Your **ScreenFlow** recording will appear after you stop recording. Click on **File / Save As** and save the recording into an appropriate place.

    Tips

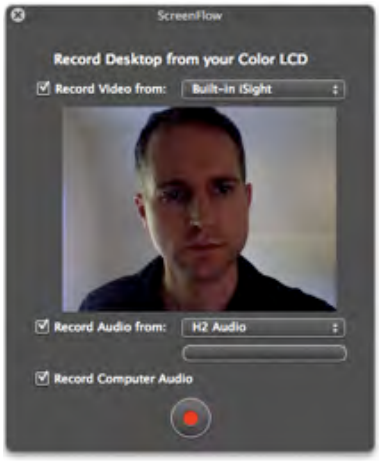
    - Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
    - ScreenFlow does not autosave. Remember to save your file periodically.
    - Create a title slide for the first and last pages of your presentation.

Recording With PowerPoint

1. Open **ScreenFlow**.
2. Open **Preferences** and enable these settings:
   - **Show ScreenFlow options in menu bar**.
   - **Countdown for 5 secs before recording**.
3. Close **Preferences**.
4. Click on **File / New Recording**.



5. In the ScreenFlow window enable these settings:
   - **Record Video from: Built-in iSight**
   - **Record Audio from: <external microphone>**
   - **Record Computer Audio**
6. Position the laptop so your face is appropriately framed in the preview window.
7. Then click on the red **Record** button.



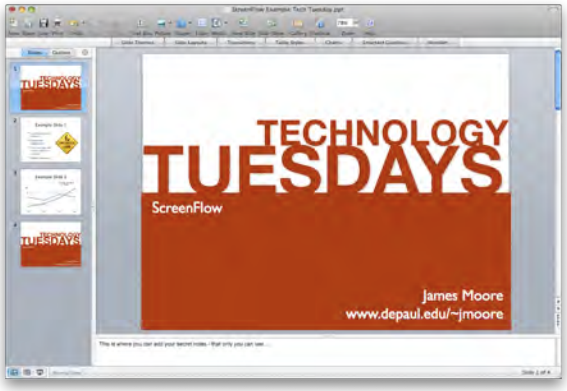
8. Wait for the countdown timer to finish.

9. Return to your **PowerPoint** presentation and click **Play Slide Show**.
10. Make your presentation as normal.

    Tips

    - Speak clearly and precisely.
    - Ensure that you are in a quiet environment.
    - Enjoy the experience!

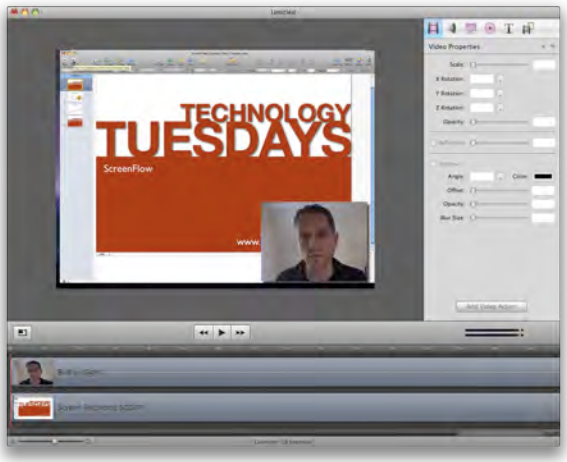
11. When you are finished presenting, click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⇧⌘2)



12. Your **ScreenFlow** recording will appear after you stop recording. Click on **File / Save As** and save the recording into an appropriate place.

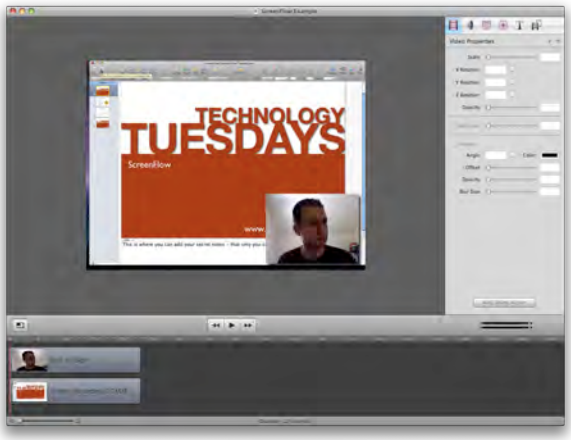
    Tips

    - Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
    - ScreenFlow does not autosave. Remember to save your file periodically.
    - Create a title slide for the first and last pages of your presentation.



Editing Your Recording

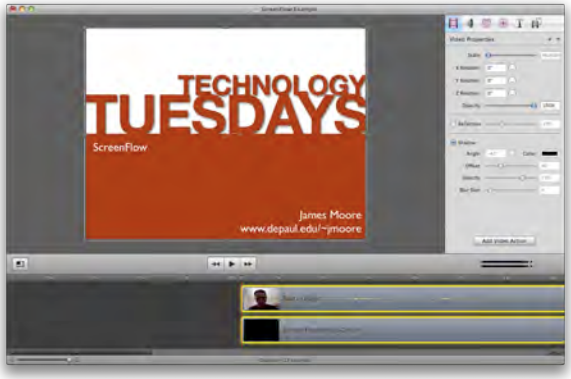
1. Open your **ScreenFlow** recording.
2. Remember to periodically save the file (ScreenFlow can crash, and you do not want to lose your work).



3. **Resize the canvas area to 640 x 480 pixels** and then click on **Apply**. The canvas icon is on the left of the screen, just above the timeline.

4. Click on **View / Zoom to 100%**.
5. **Resize your Screen Recording** so that it fits all of the canvas. You can resize with the scroll button on your mouse, or you can change the **Scale** value under **Video Properties**.
6. **Move your Screen Recording** so that it is centered within the canvas. “Snapping” and the yellow guidelines will help you in centering the image.

7. Trim the start of your recording by moving the **scrubber** (red line) to a point in your recording where you want to delete all previous material. You may want to zoom in (slider on bottom left-hand side of screen) for greater control.



8. Then press the **Command** and **A** keys (⌘**A**) at the same time to highlight all your clips in the timeline (this will put a yellow border around each of your clips).

9. Click on **Edit / Trim Front to Scrubber.**
10. Click and drag your clips to the start of the timeline.

11. Trim the end of your recording by moving the **scrubber** (red line) to a point in your recording where you want to delete all subsequent material. You may want to zoom in (slider on bottom left-hand side of screen) for greater control.

12. Then press the **Command** and **A** keys (⌘**A**) at the same time to highlight all your clips in the timeline (this will put a yellow border around each of your clips).

13. Click on **Edit / Trim End to Scrubber.**

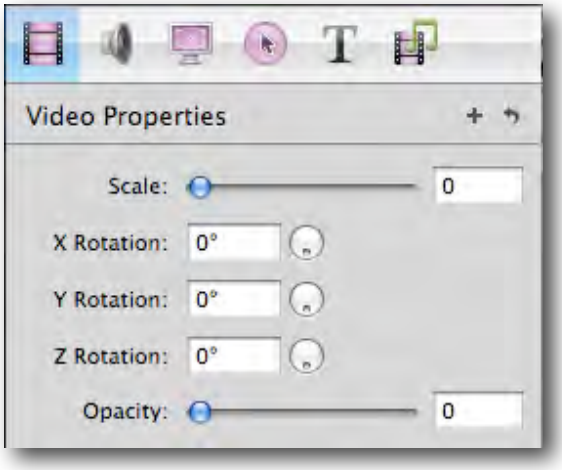
14. Click on the **Built-in iSight** clip in your preview pane and then drag the clip to an appropriate place.

15. Resize the **Built-in iSight** clip by using either the **scroll button** on your mouse or by changing the **Scale** value in **Video Properties**.

16. Move the **scrubber** to a position in your recording where you would like to fade-out your image. Click on the **Add Video Action** button.

17. This will add a yellow Video Action to your timeline. You can reposition the Video Action by clicking and dragging.You can increase or decrease the duration of the Video Action by clicking and dragging on the handles.

18. Click on on the **Built-in iSight** clip (to the right of the Video Action) and then change the **Scale** and **Opacity** values in **Video Properties** to zero.

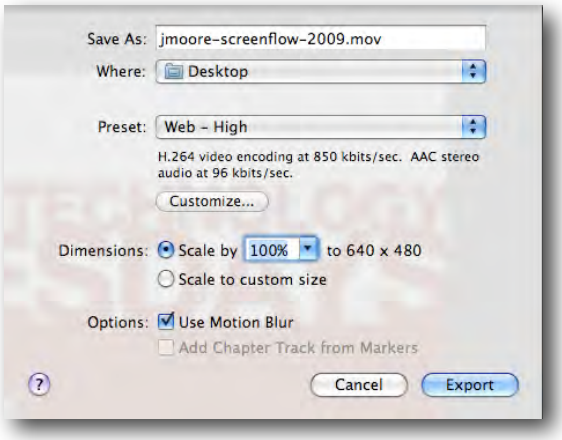


Exporting Your Recording (QuickTime)

If you wish to create a streaming video, export your completed video in the QuickTime format, and then convert the QuickTime file into a streaming format (i.e. Ooyala video).

1. In ScreenFlow, click on **File / Export**.

2. Choose an appropriate filename in the **Save As** textbox.
3. Change the **Preset** to **Web - High**.
4. Change the **Dimensions** to **Scale by 100% to 640 x 480**.
5. Under **Options** check **Use Motion Blur**.
6. Click on **Export**.



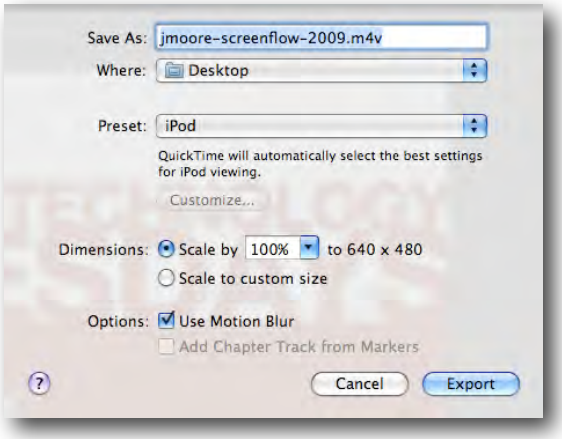
7. Wait for the QuickTime file to export.
8. After ScreenFlow has finished exporting, **open the QuickTime file** (in the QuickTime player) and verify that the video plays correctly.
9. Convert/upload to streaming format.

Exporting Your Recording (M4V/iPod)

If you wish to create a downloadable video, export your completed video in the M4V format. The best way to distribute this file is through iTunes U.

1. In ScreenFlow, click on **File / Export**.

2. Choose an appropriate filename in the **Save As** textbox.
3. Change the **Preset** to **iPod**.
4. Change the **Dimensions** to **Scale by 100% to 640 x 480**.
5. Under **Options** check **Use Motion Blur**.
6. Click on **Export**.



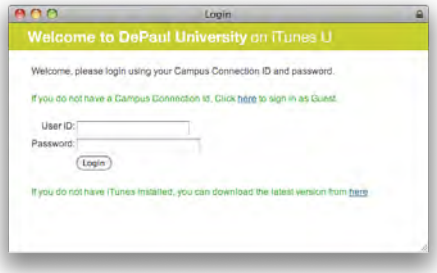
7. Wait for the M4V file to export.
8. After ScreenFlow has finished exporting, **open the M4V file** (in the QuickTime player or iTunes) and verify that the video plays correctly.
9. **Upload the M4V file to iTunes U**.

Upload to iTunes U (DePaul University Example)

NOTE: You will need to have an account on iTunes U.

1. Using a Web browser go to http://itunes.depaul.edu/
2. Click on **"Visit DePaul University on iTunes U now"** (the text below the photographs)

3. Type in your Campus Connection **username** (user ID) and **password** and then click on **Login**

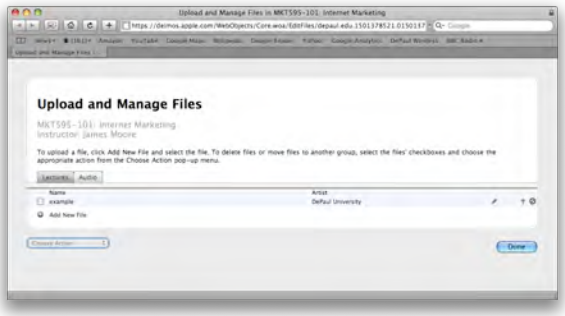


4. This should open iTunes U on your computer

5. Under **Academics**, click on **College of Commerce**
6. Click on your course

7. Click on **Upload and Manage Files**

8. Click on **Add New File**
9. **Browse** to the file that you want to upload and click on **Choose**



10. When your file has finished uploading, you can click on **Done**
11. Your files are now on iTunes U for your students to download

Hardware and Software

Software

Screenflow ($99)

http://www.varasoftware.com/products/screenflow/

iTunes (free)

http://www.apple.com/itunes/

Hardware

Snowball Mic ($99)

http://www.jr.com/blue-microphones/pe/BMC_SNOWBALL/2

http://www.bluemic.com

Zoom H2 ($169)

http://www.jr.com/zoom-h2-handy-recorder/pe/ZOO_H2/

http://www.samsontech.com

Sansa Clip (approx. $35)

http://www.jr.com/sansa-clip-2-gb-black/pe/SAD_SDMX11R204K/

http://www.sandisk.com

Belkin AV22201-06 PureAV Digital Camera Cable ($25)

http://www.jr.com/belkin/pe/BKN_AV22201_hy_06/

http://www.belkin.com/

Unibrain Fire-i ($100)

http://www.unibrain.com

Cables to Go - IEEE 1394 Extender ($25)

http://www.amazon.com/Cables-Go-extender-FireWire-regeneration/dp/B000PGHSWW

Logitech Qc 3000 for Business ($28)

http://www.amazon.com/Logitech-960-000309-3000-for-Business/dp/B000BO1X2Y/

Tripp Lite Active Extension Cable ($20)

http://www.amazon.com/Tripp-Lite-U026-016-Certified-Extension/dp/B0002D6QJO/

Gorillapod ($20)

http://www.amazon.com/Joby-GP1-E1EN-Gorillapod-Flexible-Tripod/dp/B000EVSLRO/

Pedco UltraPod Digital ($18)

http://www.amazon.com/Pedco-UltraPod-Digital-Lightweight-Camera/dp/B000A1AQU8/

Manfrotto 785 Modo Maxi Photo Video Grip Head Tripod ($60)

http://www.amazon.com/Manfrotto-Modo-Photo-Video-Tripod/dp/B000FA7PQ2/

Tamrac TR406 ZipShot Compact Ultra-Light Instant Tripod

http://tamrac.com

BT-1 Bluetooth Webcam

http://www.bt-1.com

Part 3: Pencasting

I bring a Livescribe Pulse smartpen (http://www.livescribe.com) to classes. The Livescribe Pulse allows me to record both what I say and what I draw/write on special paper. This recording can then be shared as an embedded Flash video, exported as a PDF, or exported as an audio file. The term that Livescribe has coined for this process is "pencasting."

The Livescribe Pulse comes in two versions: 1GB or 2GB capacity. The 2GB version has the capacity to store up to 200 hours of audio. The pen requires special dot paper to record and digitize what is written. The dot paper can be purchased in a variety of formats (notebooks, journals, notepads), or printed via certain color laser printers. Livescribe provides free hosting services to share pencast recordings.

The advantage of using the Livescribe Pulse is that all I need to carry with me is the pen and paper. If a classroom has an overhead projector, I can provide an ad-hoc presentation or lesson and then share this as a video after the class.

The three-stage process is as follows:

1. **Recording**
    - As soon as I start speaking or writing, I start recording. The pen has a built-in microphone that picks up my voice. The Livescribe Pulse synchronizes the recording of my voice with whatever I draw or write. I can pause audio recording if required.
2. **Importing and Editing**
    - After class I dock the Livescribe Pulse with my computer. The recording is copied over to a desktop application, which enables me to make changes to the metadata and title the session.
3. **Distribution**
    - The desktop software allows me to export the session as an audio file with accompanying PDF. My preferred format is an Adobe Flash video, which can be embedded in any web page or shared via Facebook. The limitation to this approach is that Livescribe only provides 250MB of shared storage. My hope is to find an alternative way to export video files directly from the desktop.

Papershow

The disadvantage to the Livescribe Pulse is that I need access to an overhead projector. Instead, I can use a Papershow smartpen (http://www.papershow.com). The Papershow pen uses a similar dotpaper to the Livescribe Pulse, but communicates over Bluetooth to a USB drive connected to a classroom PC. Everything I write on the dotpaper is broadcast to the classroom projector via the classroom PC. Whilst the Papershow pen does not record in the same way as the Livescribe Pulse, it is a superior tool for presenting. I use ScreenFlow to record in these situations.

My presentations can be saved to the USB drive, and the dotpaper allows me to navigate through the presentation.

Livescribe Pulse Pen ($150-200)

http://www.livescribe.com

Papershow Starter Kit ($100-150)

http://www.papershow.com

About James Moore

James Moore is the Director of Online Learning for DePaul University's College of Commerce. He teaches Internet Marketing classes in fully online, blended and face-to-face formats. He attempts to balance his love of technology and gadgets with the knowledge that quick and simple solutions are best. Unfortunately, creating quick and simple solutions often involves a long and complex process.

Contact Information

Office: DPC 6317 (6th floor of the DePaul Center, 1 East Jackson Blvd., Chicago, IL 60604)

Telephone: +1 (312) 362-5701

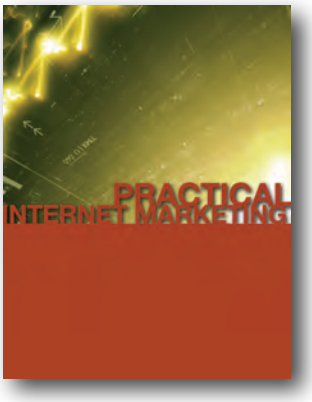
e-mail: jmoore@depaul.edu

Google Wave: jmoore.depaul@googlewave.com

Twitter: http://twitter.com/mkt595

Gratuitous Self-Promotion

Here are a few of the courses and seminars I teach:



Practical Internet Marketing Certificate Program: Hands-On Techniques for Small Businesses and Nonprofits
http://cpe.depaul.edu/opim (online)
http://cpe.depaul.edu/pim (face-to-face)

A six-week certificate program that covers (almost) everything you need to know about marketing on the Internet.

Taught online and face-to-face in Chicago.

MKT 595: Internet & Interactive Marketing
http://www.depaul.edu/~jmoore/mkt595/
An eleven-week DePaul University MBA course that covers (almost) everything you need to know about marketing on the Internet.

Taught online and face-to-face in Chicago.