

IPAD IN THE CLASSROOM

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GOAL OF THIS SESSION

- The main goal of this session is to provide you with information which will *enhance* your teaching in the classroom.
- I hope to accomplish this by showing you some tips and tricks and providing information about some particular apps.
- This is NOT about how iPads may be used by students to enhance learning.
 - Several pilot projects have provided iPads to university students for particular courses and not seen any particular enhancement in learning outcomes.
- These slides can be downloaded from:
www.phy.olemiss.edu/~jgladden/other/iPadInClassroom.pdf

OUTLINE

- Sharing files between Desktop and iPad
- Preparing content for display
 - Keynote
 - Powerpoint
 - Scanned notes
 - Other media
- Connecting and Displaying
- Quickly switching between apps
- Other work related apps: note taking, drawing, to-do lists, and calendars.
- Add-ons to make your life easier.
- General comments about the tablet platform.

SHARING YOUR FILES

- **Dropbox** - my favorite!
5 GB free storage (pay for more); automatically syncs desktop, laptop, iPad, phone; any file type; intuitive directory structure; well supported by other apps. Warning: Security is questionable - no sensitive docs (SSNs, classified work, upcoming tests??)
 - Other similar options: Google Drive, SugarSync, MyBox,....
- **iCloud** - my 2nd least favorite!
Only works for iWork documents, requires you to log in to iCloud website to download/upload from/to computer.
Good for your iTunes music ;)

SHARING YOUR FILES

- Secure File Transfer Protocol:
Set up your desktop as an SFTP server.
FTP on The Go Pro (\$9.99 - need Pro version for SFTP)
can connect and access any file on your desktop. Do NOT
use FTP: your password is sent over network as clear text.
 - Setting up your Mac as an SFTP server: System Preferences -> Sharing.
Check “Remote Login” and add users you want to be able to login. This will
allow you to login by ssh and get/put files by SFTP.
- Last resort: Connect your iPad and transfer files using
iTunes. NOT intuitive, but no other choice if no internet.

PET PEEVE: NO REAL FILE SYSTEM

- One of the biggest differences between iOS and traditional OS is there is no user accessible file system (Mac Finder, Windows Explorer, Gnome Nautilus,...)
- This means you can not organize your files in the same way. Each App will generally keep a local copy of a file and (many) have their own app specific file management scheme.
- iOS uses “Open In ...” (Application Aware) model. iOS knows (generally) which apps can deal with which files and provides a list of options based on the file type. Then that app gets a COPY of the file.

PREPARING CONTENT: KEYNOTE

- Keynote is Apple's answer to MS Powerpoint. Clean, easy to use, nice templates, typical Apple.
- It has a nice iPad version (\$9.99) which generally does a good job of reproducing your slides prepared on your desktop (see below for a few "Gotchas").
- Can also import and convert Powerpoint files - with mixed results! Fonts often changed, layout sometimes off. Better luck with simpler designs.
- Nicely displays to projector with "virtual" laser pointer.
- However, if you normally work in Powerpoint, read on ...

PREPARING CONTENT: POWERPOINT

- **Option 1:** On your desktop, import your .pptx file to Keynote, fix what needs fixing, and save as .keynote file. Open this file on iPad in Keynote via Dropbox or iCloud
- **Option 2:** Create .pptx file in PP, open .pptx file with a MS Office app such as Office² HD (\$9.99) or PPT presenter apps (see later).
- **Option 3:** Export .pptx file as a PDF file. This is the safest way to preserve formatting.
- With ANY of these options, you will loose fancy stuff like transitions, animations, embedded video.

EQUATIONS - NOT IN KEYNOTE!

- Here is an equation which shows up fine in Keynote on the Mac. It was written in Equation Editor.

$$c^2 \nabla^2 \psi(\vec{x}, t) = \frac{\partial^2 \psi}{\partial t^2}$$

- Another option is to save your equations as a PDF or PNG file and embed them as a graphic file.

- Fine if you will not be editing

$$c^2 \nabla^2 \psi(\vec{x}, t) = \frac{\partial^2 \psi}{\partial t^2}$$

PREPARING CONTENT: SCANNED NOTES

- Just about any document can be saved to a PDF file.
File -> Save As... or Print -> Print to file ...
- You can also take existing lecture notes and materials and scan them in. Best to make a PDF file of them.
 - Scan by copier, sheet feeder scanner,
- Many good PDF readers and annotators
 - **Adobe Reader** (free) and **Adobe Reader Pro** (\$5.99)
 - **GoodReader** (\$4.99) - my favorite PDF annotator
 - **iAnnotate** (\$9.99) - another good annotator
 - **PDF Max Pro** (\$4.99)

DISPLAYING CONTENT

- Connect the projector or TV
 - Make SURE you have plenty of charge - can't charge and display at the same time!
 - You'll need a VGA adaptor which will work for all projectors and most TVs. Apple also makes a HDMI adaptor if you will regularly be using a TV.
 - **Biggest Pain:** The stiff VGA cables will easily pull out the the connector from the iPad OR even pull your iPad off the desk! Take some care to make sure the cable weight is fully supported and there is no tension on the connector.
 - Note the aspect ratio of the projector matches the iPad in Landscape mode. This mode will lock when projecting.
 - **Rarely** the projector won't display. Get to the Home Screen (Home button), disconnect and reconnect the adaptor.
 - Might also want to increase "Autolock" (in Settings -> General) to 15 minutes)

OTHER APPS FOR PRESENTATIONS

- **2Screens Presentation Expert** (\$4.99)
More sophisticated, can project over AirPlay to AppleTV. Supports DropBox, SugarSync,...
Can open .pptx and .pdf files directly from DropBox using “Open in...”
- **Slide Shark** (free)
Displays .pptx files (only) well (generally gets animations), virtual laser pointer, has a Presenter View. Must upload files to Slide Shark website (won't open via Dropbox or other)
- **Power Presenter** (\$1.99)
Displays PPT, Keynote, PDF, images, Videos. Has a simple white board mode and web browser. Need to transfer files via iTunes :-(.

QUICKLY SWITCHING APPS

- When I teach, I hate “dead time” - especially technology related.
- Let’s say you have some slides you want to show, a video, a website, and a sound clip. Gather all the materials in a folder (i.e. Dropbox) and open them up in their apps **right before** class.
- Use the 4 finger swipe up to quickly switch to the most recent apps you’ve used. 4 finger swipe left cycles back through most recent in order.

OTHER USEFUL APPS FOR WORK

- **Evernote** (Free, Pro option)
Good note taking app that syncs note to phone, Desktop,... Can only type notes (no free hand)
- **Remarks** (\$4.99)
Good free hand note taking and sketching. Can export to PDF, email, sync to DropBox or Google Docs. Decent note organization.
- **iWork** apps (Pages, Keynote, Numbers - \$9.99 each)
Probably the best general office apps, reasonable compatibility with MS Office docs, seamless iCloud integration. Do NOT expect fully functionality, but reasonable to start a project on the go and finish at your desk.
- **QuickOffice Pro** (\$19.99)
Offers native MS Office (Word, Excel, PowerPoint) compatibility, but expect formatting issues. Syncs with Dropbox but not iCloud.
- **BlackBoard Mobile Learn** (free)
Nice interface to the BlackBoard system
- **Textastic** (\$9.99)
Great text editor with syntax highlighting, remote connections, FULL virtual keyboard. Good for programmers and web designers.

OTHER USEFUL APPS FOR WORK

- Graphics

- **Sketchbook Pro** (\$4.99)

good bitmap drawing program (like Photoshop), lots of drawing tools and brush styles and layers, handy for use as a “white board” in class

- **Inkpad** (free)

Solid vector drawing app (like Illustrator), basic shapes, standard transformations, fills, line styles, layers. Can export to SVG or PDF files.

- **neu.Draw** (\$1.99)

Another good vector drawing app. A bit more fully featured and fairly easy to use.

- Electronic Text Books

- **Kno** (free): growing library of offerings, nice interface

- **CourseSmart** (free): used to have larger offerings, only works in portrait mode.

OTHER USEFUL APPS FOR WORK

- **Network and Connectivity**
 - **FTP on the Go Pro** (Free, Pro option for \$9.99)
Pro version offers better interface AND SFTP support (important).
 - **Jump Desktop** (\$9.99)
Very cool Remote Desktop client. Allows you to display and control your desktop from iPad over internet. Need to setup Remote Management on desktop
(System Preference -> Sharing -> check Remote Management and set access).
 - **iSSH** (\$9.99)
Full featured SSH client for command line control of Unix systems (including Mac OSX)

USEFUL ADD-ONS

- If you are planning to use the iPad for any serious writing, I would suggest investing in a **Bluetooth keyboard** (\$69 from Apple). Major gripes about virtual keyboard: no tactile feel, missing arrow keys (means constantly having to use finger to reposition cursor), no tab, takes up valuable screen real estate.
- **Smart Cover:** very clever design to position mostly horizontal (like a book) or mostly vertical (like a laptop screen).
- **Stylus** (~\$10 at Walmart): much nicer for drawing and navigating if your fingers are slightly damp (MS humidity!)



GENERAL COMMENTS

- What role does a tablet play in our work life?
 - Currently tablets are very good at content delivery and only marginal at content creation, although this is evolving.
 - Tablets are not a laptop or desktop replacement. No integrated file management, no USB ports (iPad only - most Android tablets do), printing is virtually impossible unless you happen to have an Airport printer handy. So, you will need a desktop or laptop in addition.
 - I have gotten by pretty well the past year in moving from a laptop only model to a iPad + Desktop model. MUCH easier to move around campus and more comfortable to “absorb content”. It has helped me virtually eliminate paper from my life.