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# Teaching with the iPad



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**Editorial and Technical Assistance: Matthew Heinrich**

## **CATALYST**

Version 1.1

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Created with iBooks Author

# Teaching with the iPad



- ▶ **iPads in Education**
- ▶ **Digital Learning Content**
- ▶ **Digital Content Development Tools**
- ▶ **Sharing Digital Content**
- ▶ **Presentation Solutions**

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# iPads in Education

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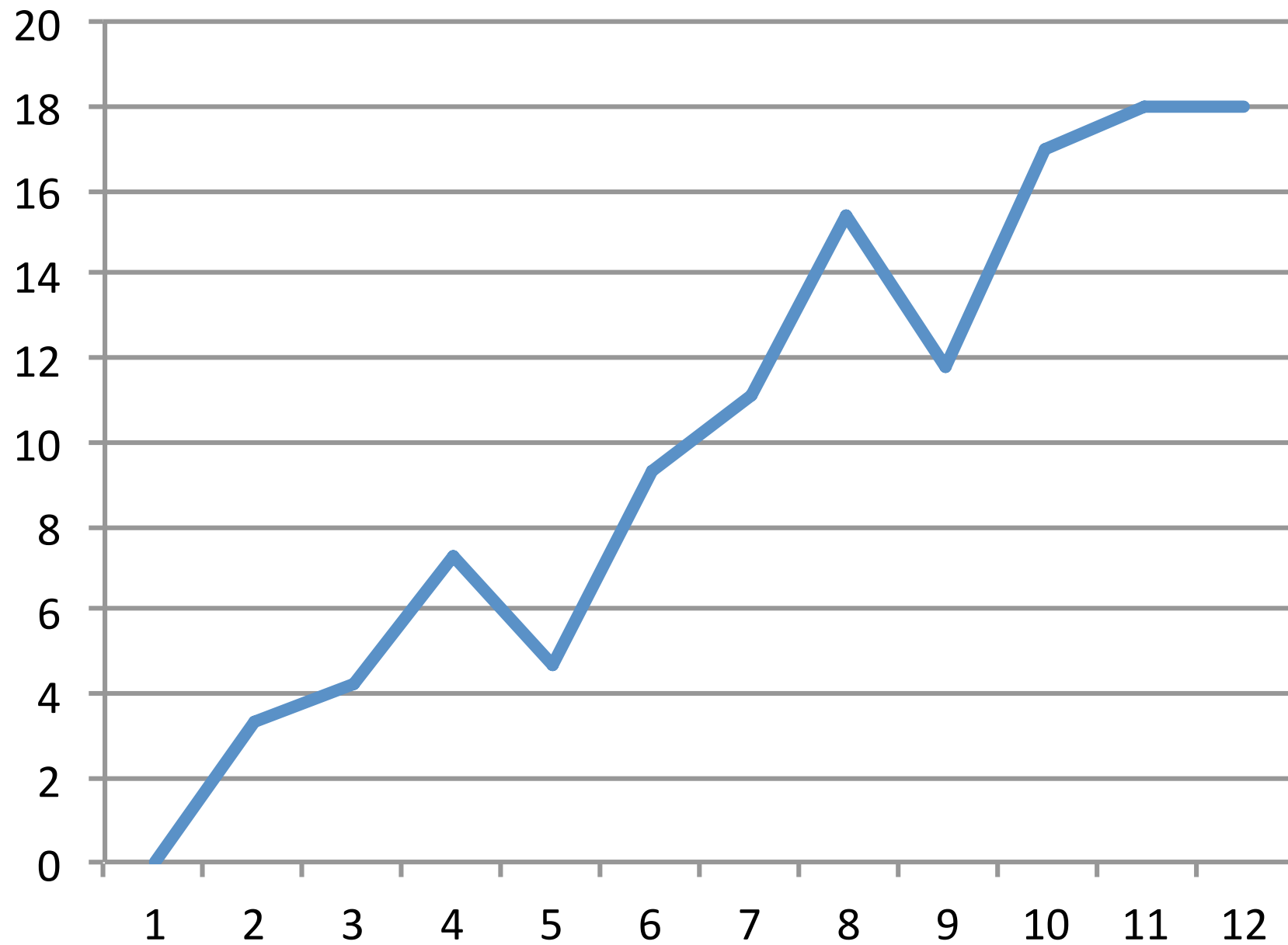
# Use of iPads in K-12 Education

## Kansas Schools

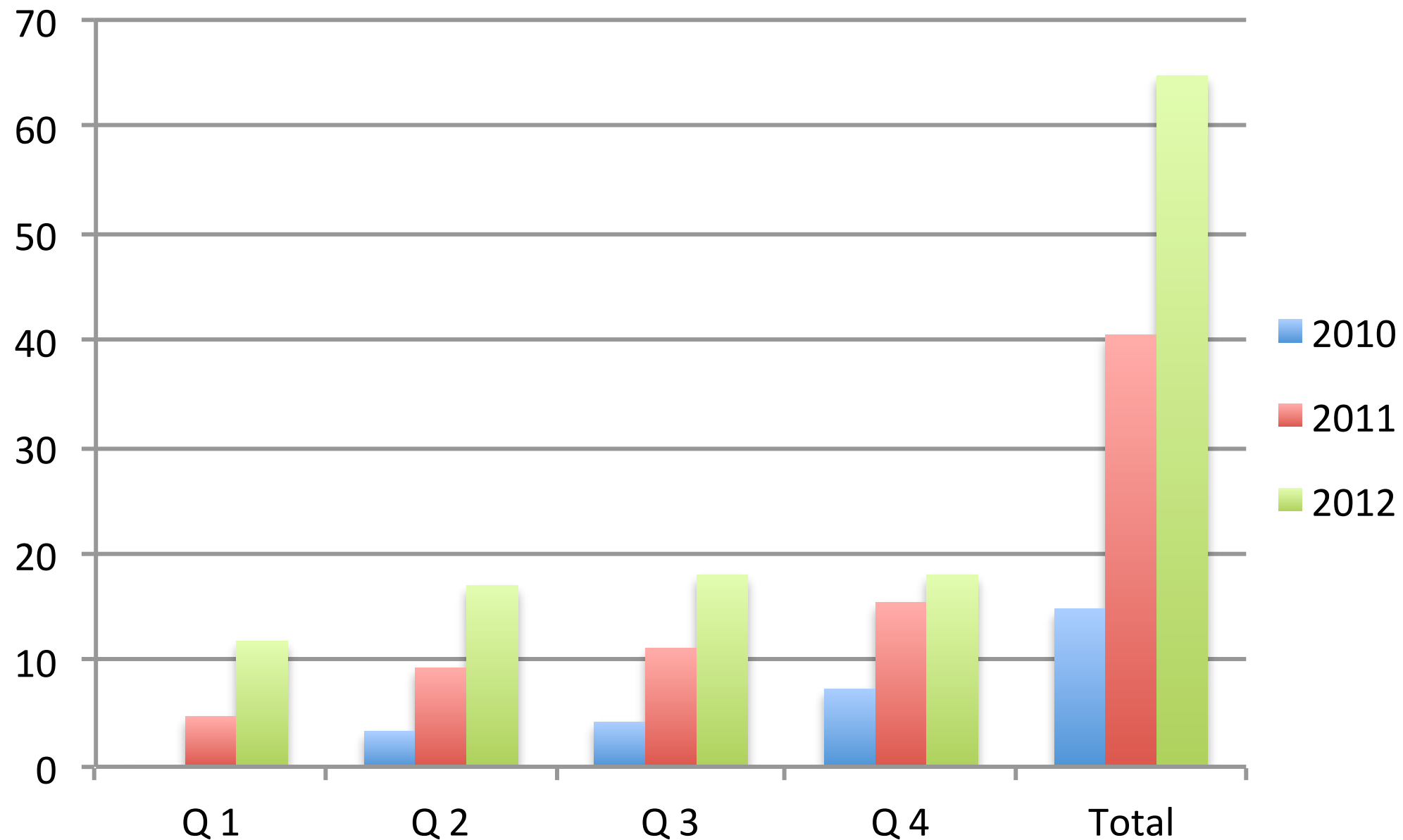
- ▶ **School Districts using iPads in the classroom**
- ▶ **iPad initiatives for students**
  - ▶ One to One
  - ▶ Classroom / Lab Carts
- ▶ **Using Digitized Media**
  - ▶ eBooks, digitized textbooks
  - ▶ Creating their own to cut education costs



# iPad Sales per Quarter, 2010–2012



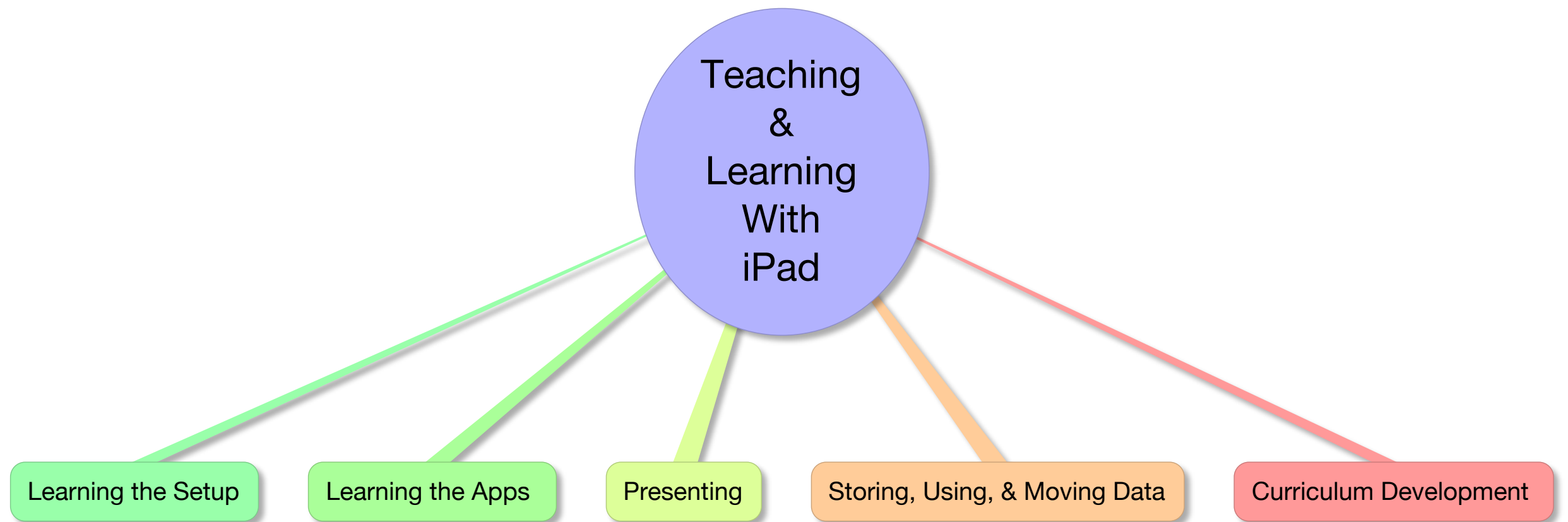
# iPad Sales: 100 Million since 2010

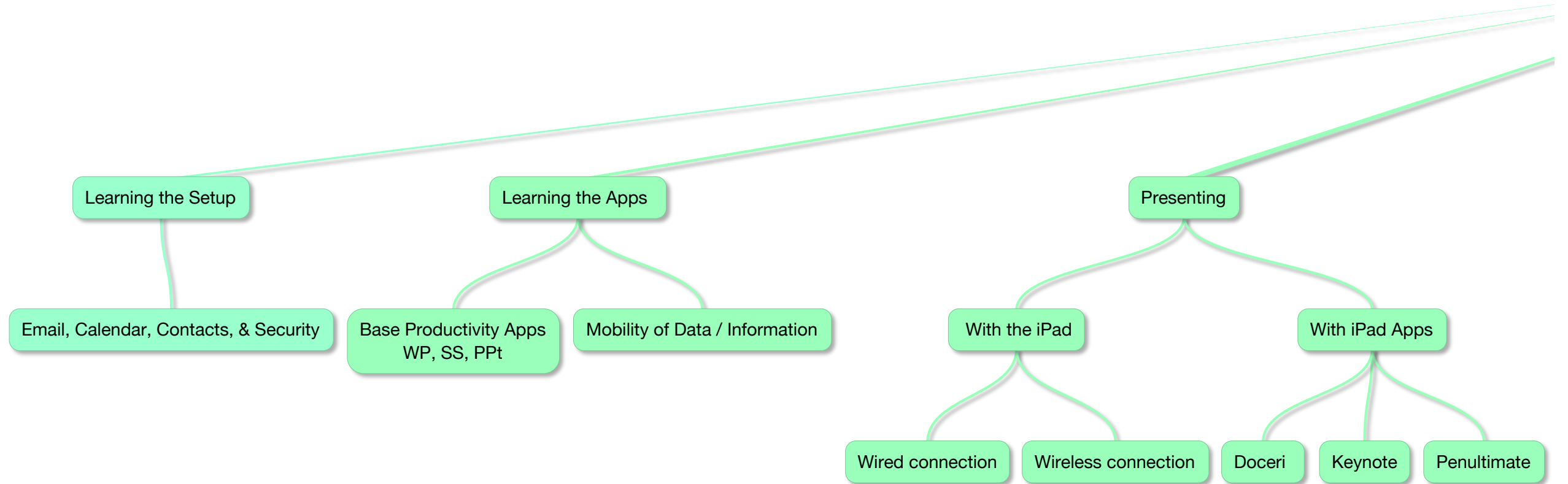


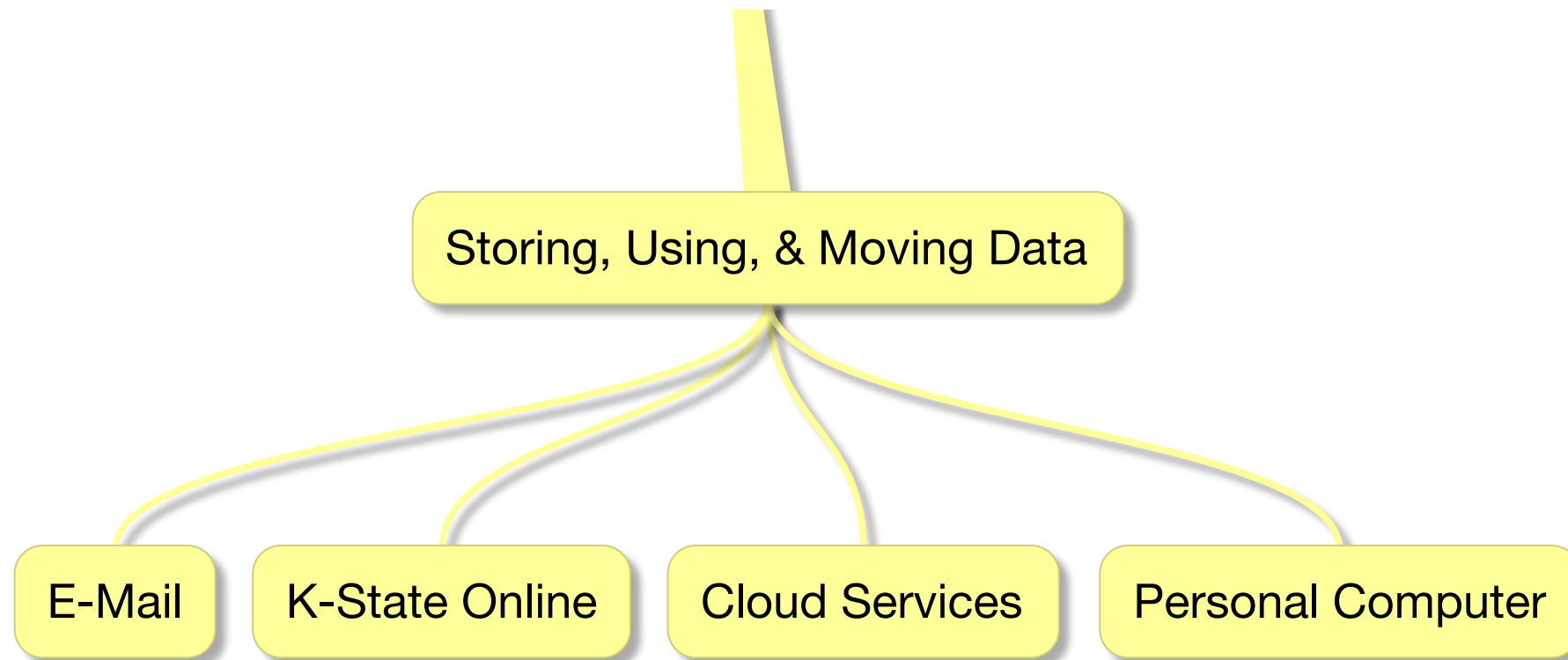
# College of Education iPad Initiative

- ▶ **Full-time instructional faculty**
- ▶ **Training in the form of 90-minute sessions**
- ▶ **Sessions focus on assisting, educating, and implementing the practice of using the iPad**









Curriculum Development

Curriculum Development Pods

Digitizing Data to Put on iPad

PDF Documents, ePubs, eBooks, iBooks

iPad Apps

Instructional Assistance

Collaboration / Engagement Development

Digital Learning Content Development Tools

Syllabus

Handouts

Textbooks

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# Digital Learning Content

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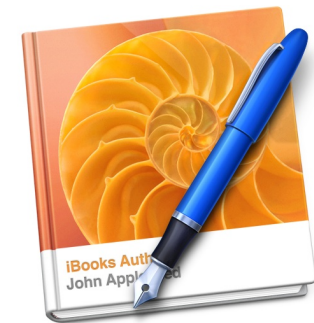


# eBooks

## Books as Digital Files for eBook Reader Apps

(iBooks 2, Kindle, Nook, Google eBooks, Stanza, PDF Readers, etc.)

- ▶ **ePUBs**
- ▶ **Enhanced ePUBs**
- ▶ **PDFs**
- ▶ **iBooks**



## Books as Stand-alone Apps

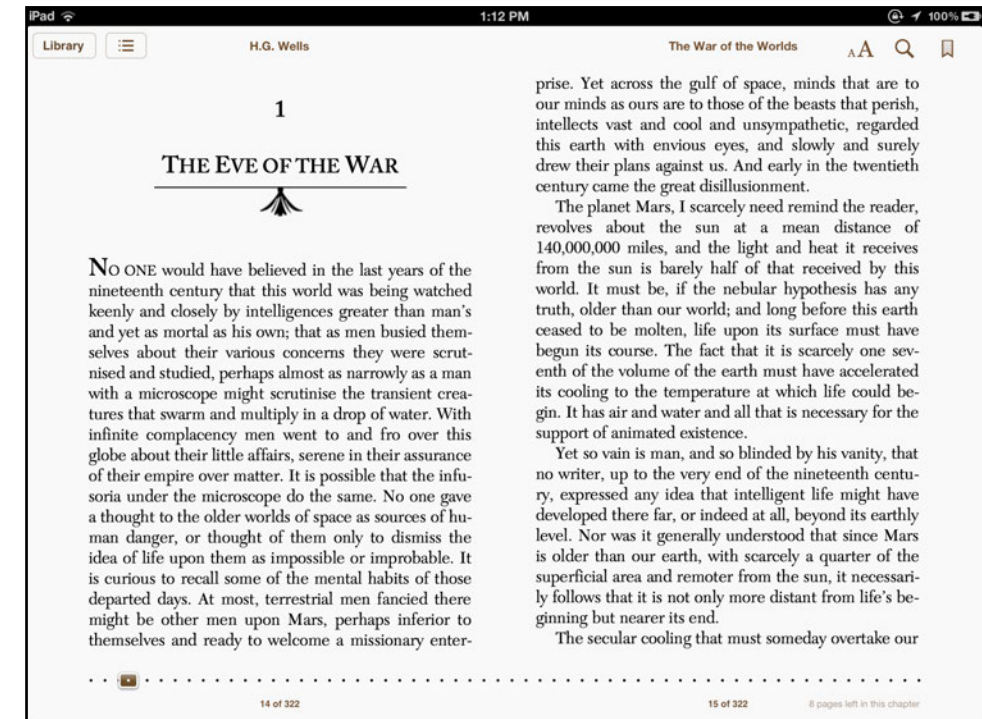


# DRM: Digital Rights Management

- ▶ DRM is access control technology used by publishers, hardware manufacturers, copyright holders, and other content providers with the intent to limit the use of digital content after sale.
- ▶ DRM is controversial, as it can restrict users from doing legal things, such as making backup copies of CDs or DVDs, lending materials through a library, accessing works in the public domain, or using copyrighted materials for research and education under fair use laws.

# ePUB (electronic PUBlication) Format

**ePUB books can display reflowable content that can adjust its presentation to the output device; use this format when text is the most important part of your document.**



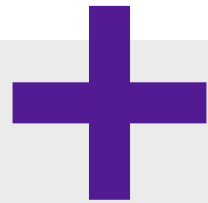
*ePUB is the format standard for digital publications and documents based on web standards.*

Source: International Digital Publishing Forum, <http://idpf.org>



# ePUB

## PROs



- ▶ Reflowable text; adaptable for small devices
- ▶ Ability to annotate and create bookmarks
- ▶ Small file size
- ▶ Compatibility with most eReader devices
- ▶ Accessible for sight impaired

## CONs



- ▶ Requirements for creation are stringent; validation checks are necessary
- ▶ Can be difficult to create valid ePUBs without some programming knowledge (XHTML, CSS)

# ePUB 3

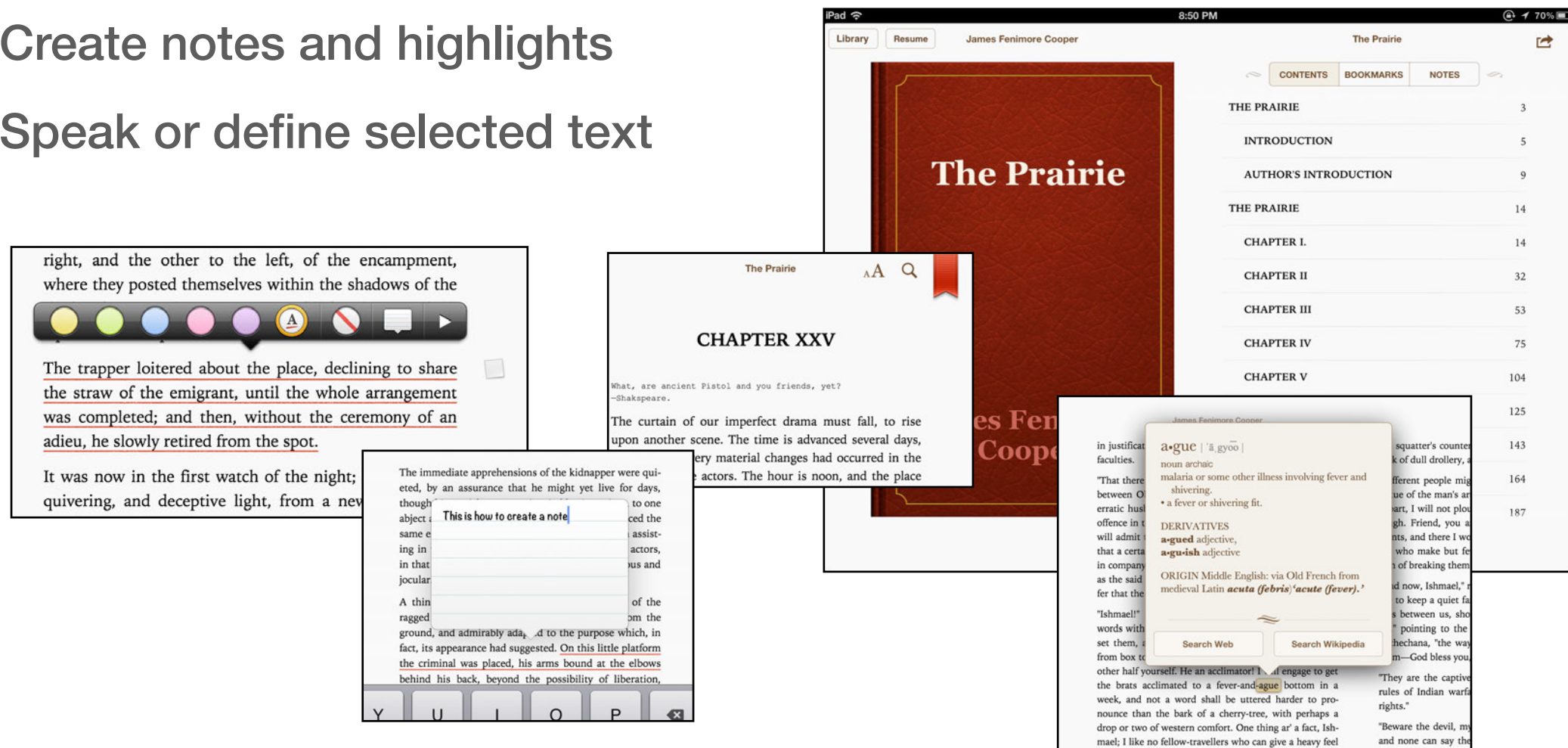
EPUB 3 will support a wider range of publication requirements, including complex layouts, rich media and interactivity, and global typography features. The expectation is that EPUB 3 will be utilized for a broad range of content, including books, magazines and educational, professional and scientific publications.

**iBooks 3.0 will have EPUB 3 Support**



# ePUB in iBooks 2

- ▶ Screen brightness, size of text, font, or theme can be changed
- ▶ Search function within the whole document
- ▶ Place bookmarks within the book
- ▶ Create notes and highlights
- ▶ Speak or define selected text





# Enhanced ePUBs

## PROs



- ▶ Media (audio, video, animation)
- ▶ Interactivity
- ▶ Supported by ePUB standards



## CONs



- ▶ Can be difficult to create valid ePUBs without working programming knowledge (XHTML, CSS, audio and video compression)
- ▶ File sizes can be much larger

# PDFs (Portable Document Format)

**PDFs are viewable on virtually any platform, and are replicas of formatted print documents; use this format when layout is the most important part of your document.**



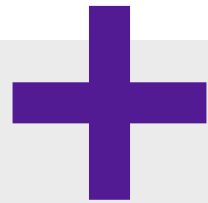
*Portable Document Format (PDF) is a file format used to represent documents in a manner independent of application software, hardware, and operating systems.*

Source: Wikipedia



# PDF

## PROs



- ▶ Creator/publisher has control over layout and fonts
- ▶ Most widely used document format worldwide
- ▶ Easily generated
- ▶ Can be read on most platforms/devices

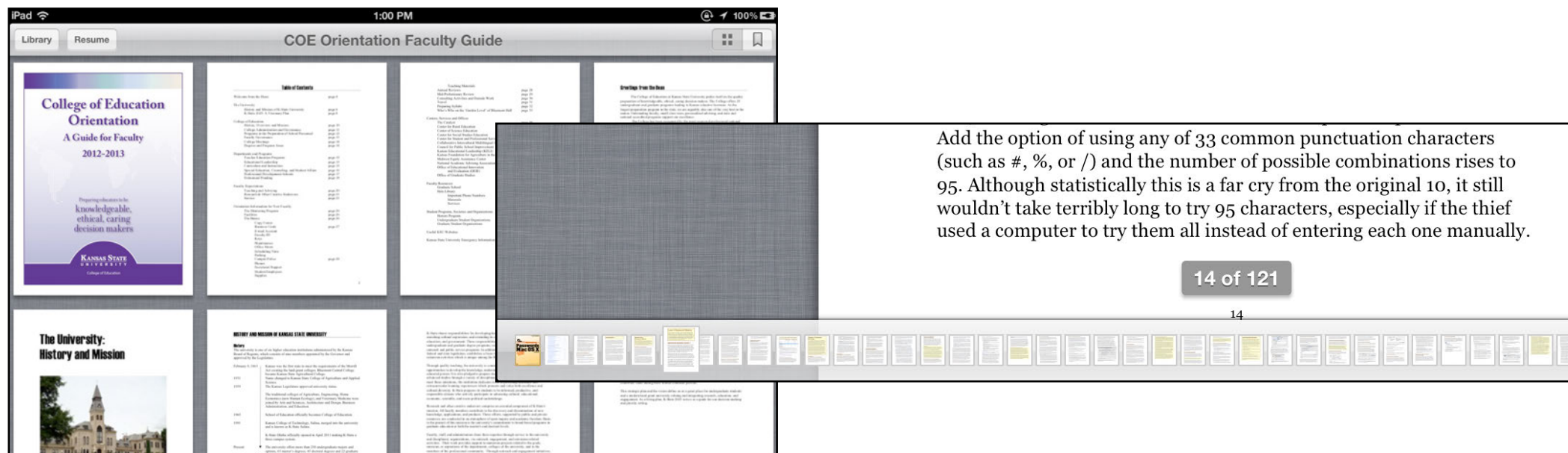
## CONs



- ▶ Readers cannot reflow text or change font size
- ▶ Readers are forced to view the book exactly as it was designed; does not adapt to various sized display and devices

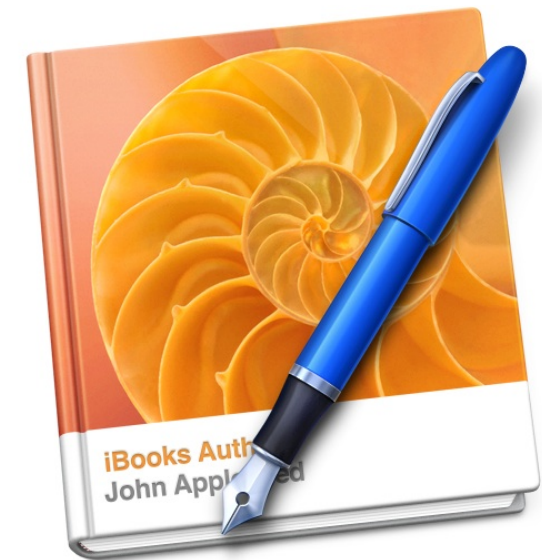
# PDFs in iBooks 2

- ▶ Screen brightness can be changed
- ▶ Search function within the whole document
- ▶ Place bookmarks on document pages
- ▶ Pages are seen as page thumbnails that can be selected and viewed in expanded screen size
- ▶ No annotation features



# iBooks

**iBooks are digital books created specifically for the Apple iPad, saved in the ePUB 3 format with a few proprietary Apple-specific additions. They can include audio, video, 3D objects, and other media, and support user interaction through multi-touch gestures.**



*iBooks are created with iBooks Author, a free book design and publishing program developed by Apple.*

Source: [www.fileinfo.com](http://www.fileinfo.com)

# iBooks

## PROs



- ▶ Easy to create with free iBooks Author software and templates; no programming knowledge needed
- ▶ Ability to add video and other interactive elements
- ▶ Can be exported as PDFs for those without iPads
- ▶ Accessible for sight impaired

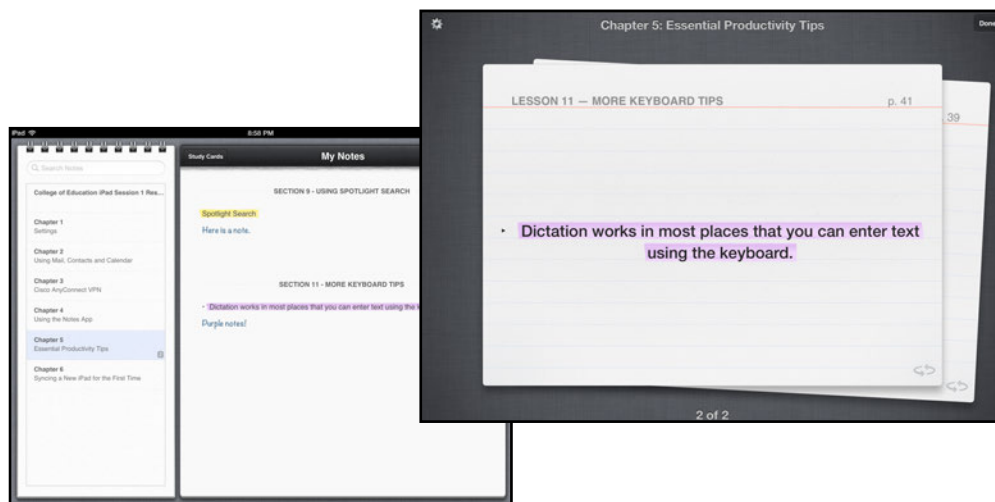
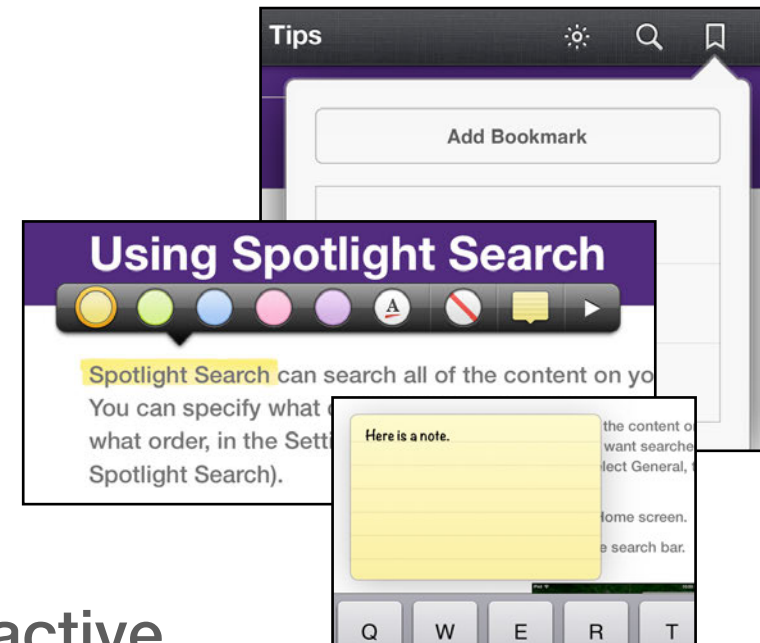
## CONs



- ▶ Exclusive to the iPad
- ▶ If you intend to sell, iBooks can only be sold through Apple's iBookstore
- ▶ Including video can make file sizes very large

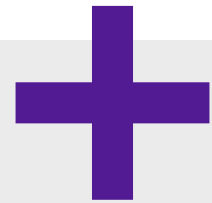
# iBooks in iBooks 2

- ▶ Screen brightness can be changed
- ▶ Search function within the whole document
- ▶ Place bookmarks on document pages
- ▶ Create notes and highlights, and study cards
- ▶ Speak or define selected text
- ▶ Content includes video, glossary, galleries, interactive diagrams, 3D objects and other widgets



# Stand-alone Book Apps

## PROs



- ▶ Navigation and styling can be customized
- ▶ Feature-rich with greater interactivity options
- ▶ Not limited to iBookstore; may open new markets through App Store

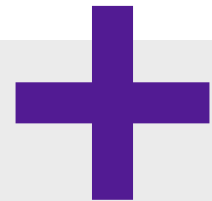
## CONs



- ▶ Costly to produce
- ▶ Platform-specific; you must produce different versions for each
- ▶ File sizes can be very large
- ▶ Requires custom development experience to produce

# Videos, Whiteboards and Presentations

## PROs



- ▶ Great content for visual learners
- ▶ Content is easily captured and created on the iPad
- ▶ Content is easy to share

## CONs



- ▶ Quality of audio and video produced on iPad is not optimal
- ▶ Production can be time-consuming; some apps have high learning curve

# Digital Learning Content

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# Development Tools





# eBook Tools: On the Mac

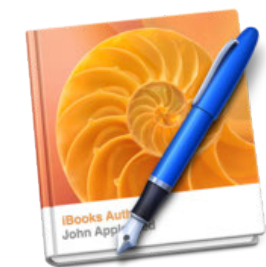
## Pages for Mac (\$19.99)

Use paragraph styles and other formatting attributes allowed in an ePub file (documents created in page layout templates can't be exported to the ePub format); then Export as EPUB.



## iBooks Author (Free)

Create multi-touch books such as this one. You can Preview it on your iPad, then Publish to iBookstore or to your own devices through a web server.



## eBookBinder (\$5.99)

Simple to use: Enter book details (title, etc.), add text files (txt, doc, html, etc) as chapters, then hit Bind Book button.



# eBook Tools: On Mac or PC

## Microsoft Word and Calibre

Format your book in Word, and save it in html format. Then import the html file into a free program called **Calibre**, which allows you to convert your html file into an EPUB file. Microsoft conversion to html is not always clean. Very helpful to know html for cleanup.



## Adobe InDesign 5.5+

Design and layout your book, then export your file directly to ePUB format.

# eBook Tools: Online

## dotepub.com

- ▶ Convert any webpage into an eBook
- ▶ Compatible with the iPad and other ebook readers



## 2epub.com

- ▶ Convert pdf, doc and other types of documents to ePUB format



And there are many, many more...

## eBook Tools: On the iPad

### **Creative Book Builder (\$3.99)**

Create ePUBs right on your iPad, including audio, video content.



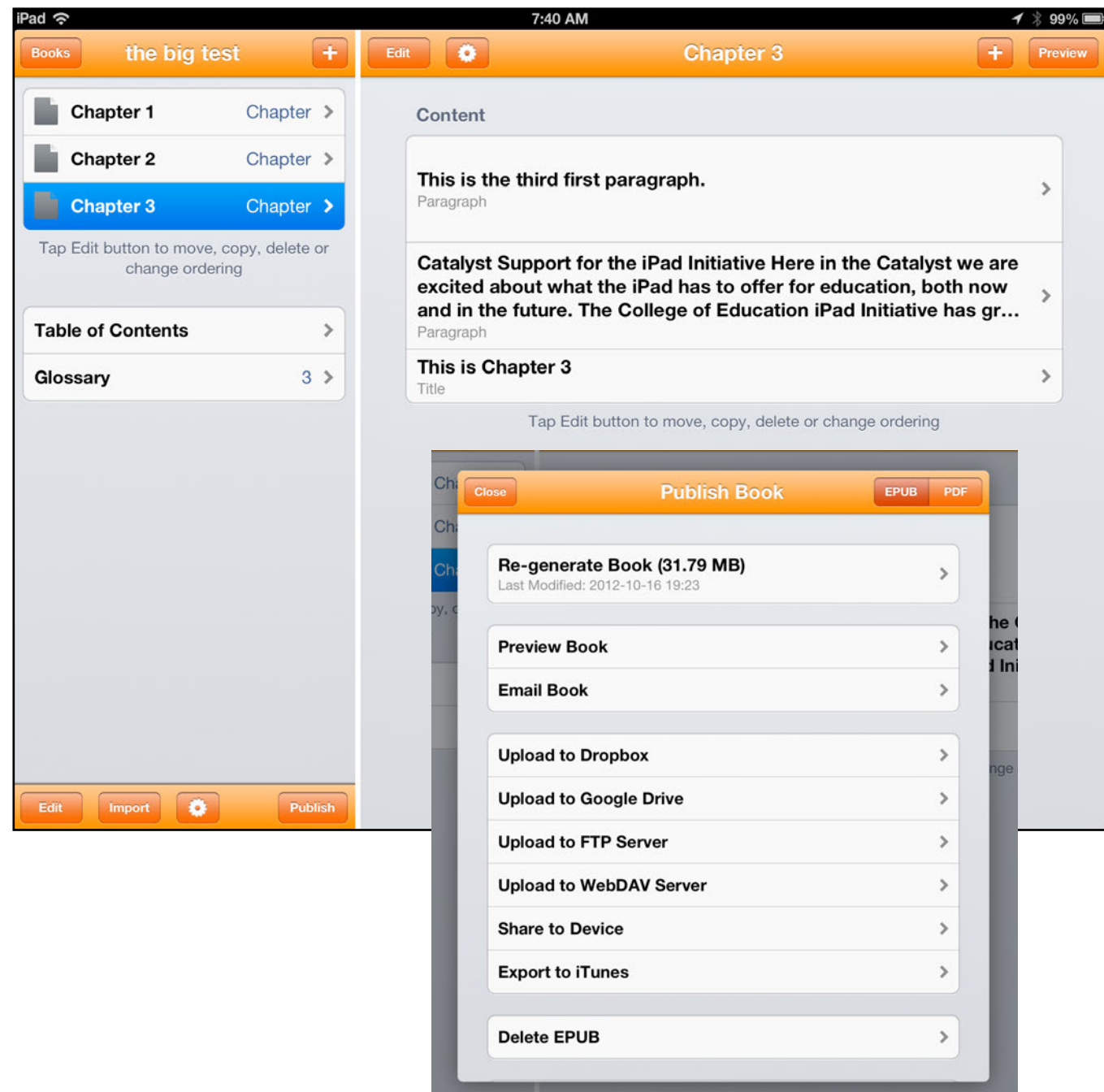
### **myMemoir for iPad (\$1.99)**

Journaling app that exports as ePUB.

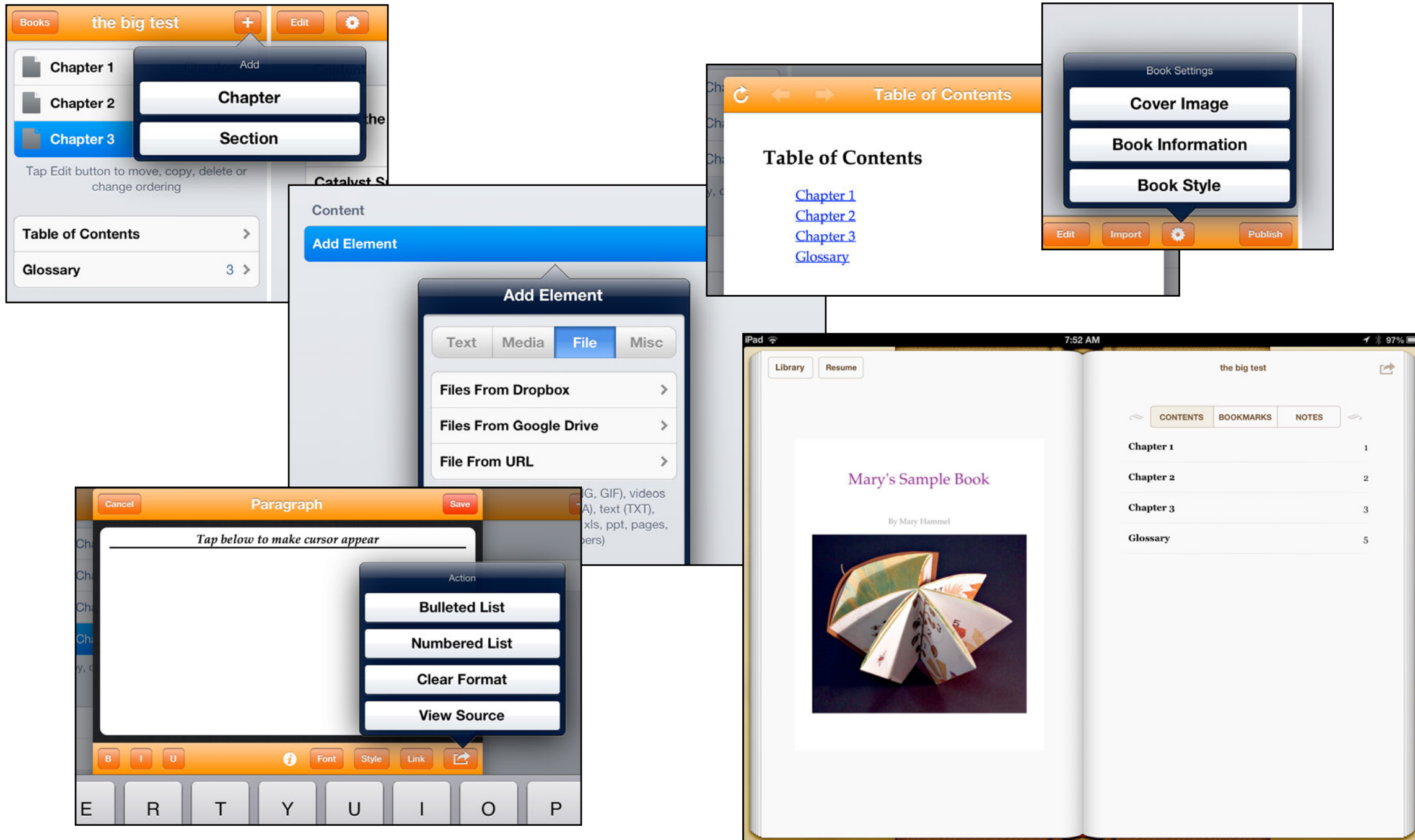


# Creative Book Builder

Creative Book Builder lets you create, edit, and publish an eBook in ePUB format.

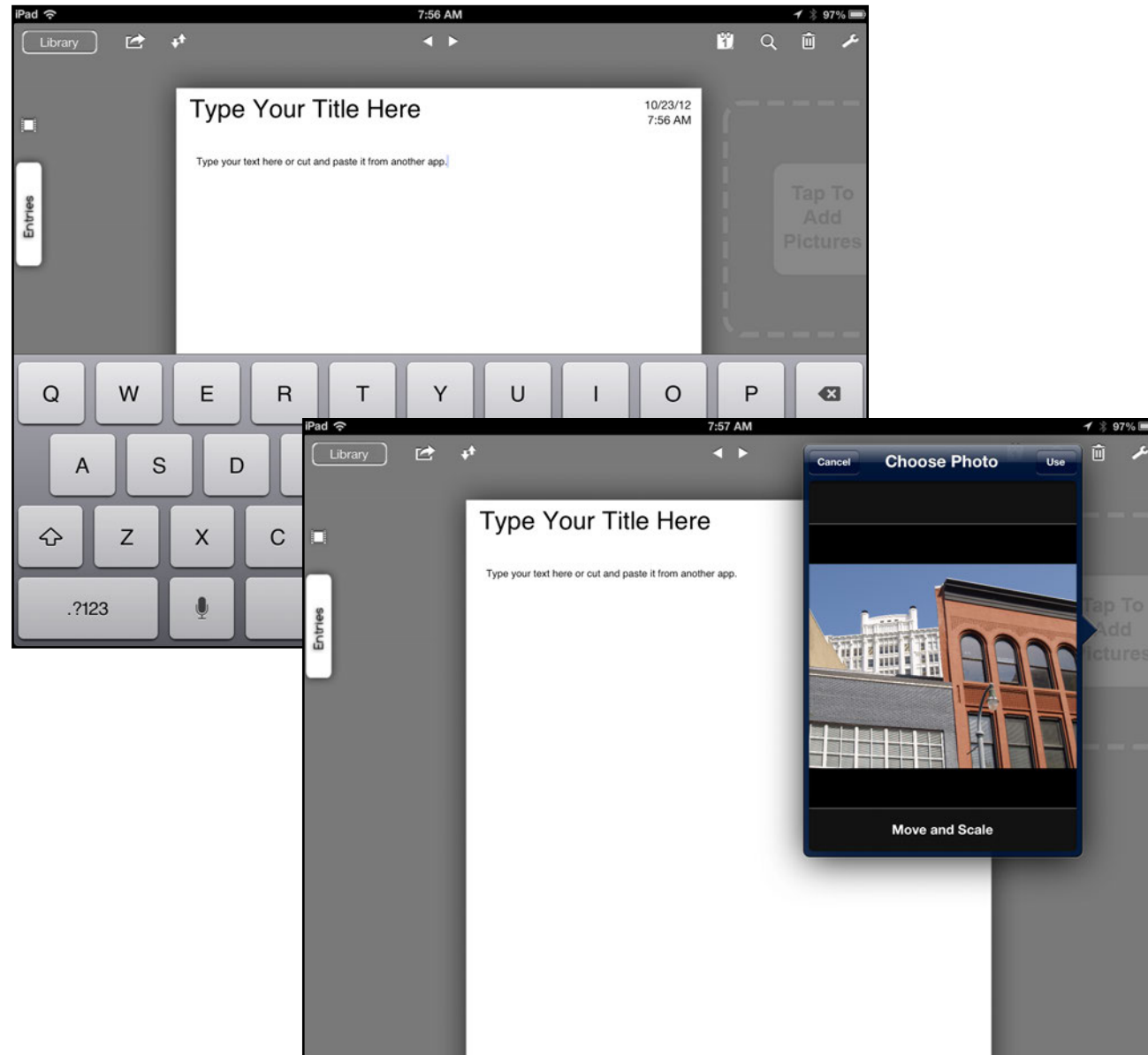


# Content Creation



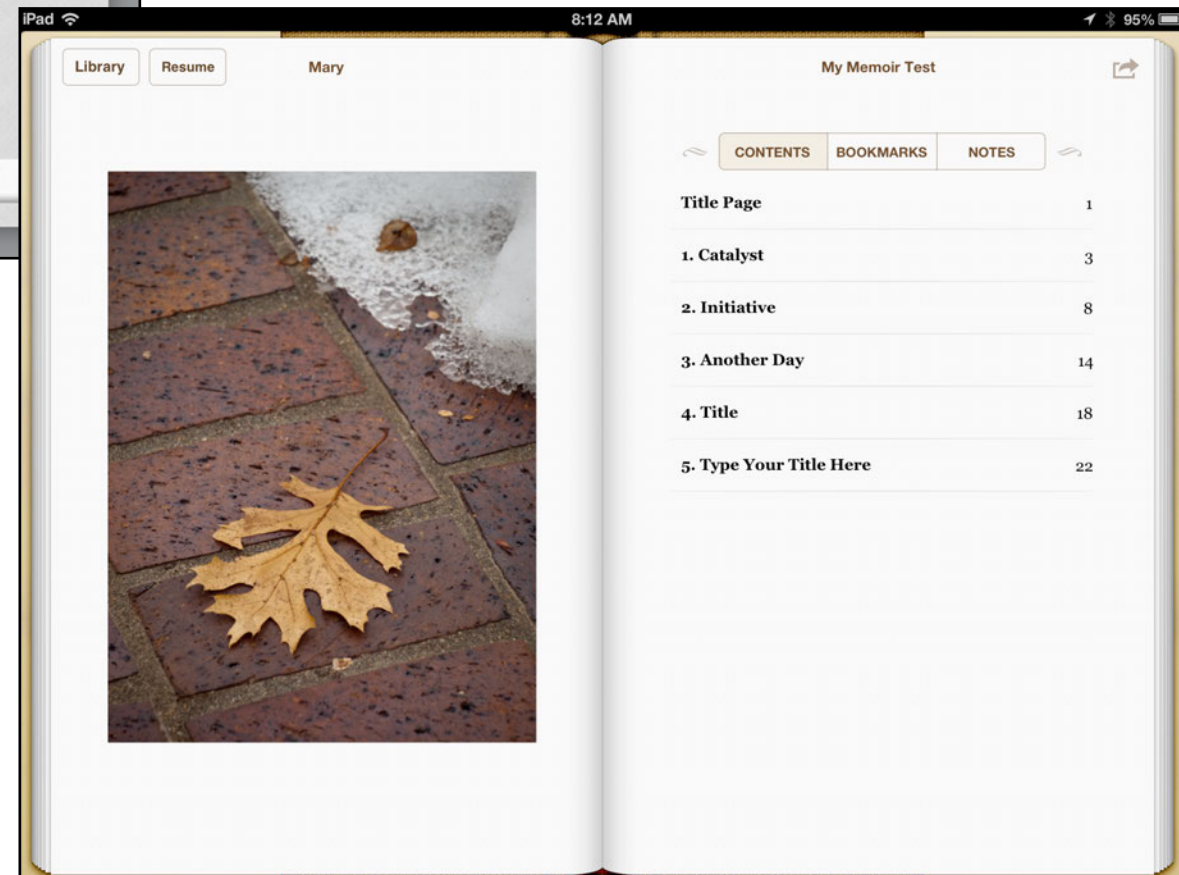
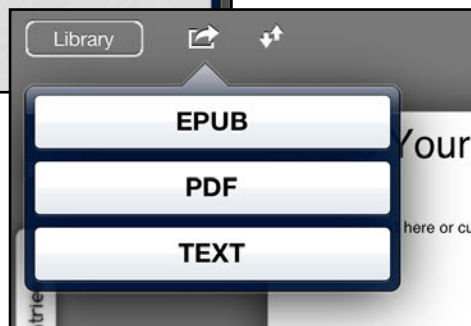
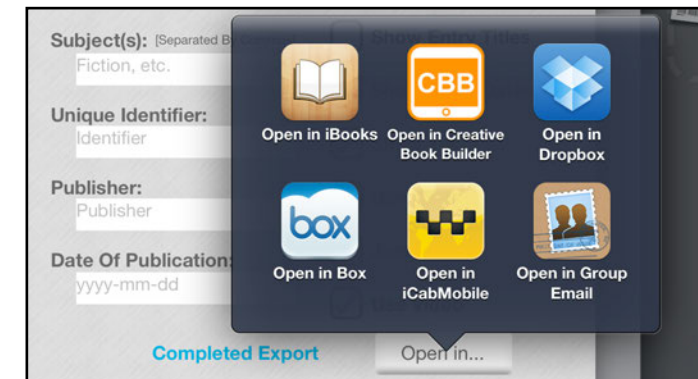
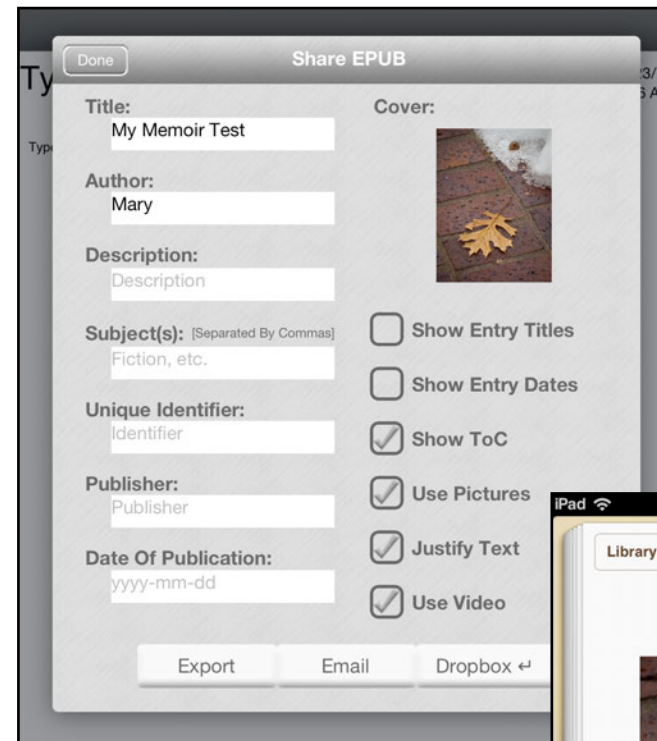
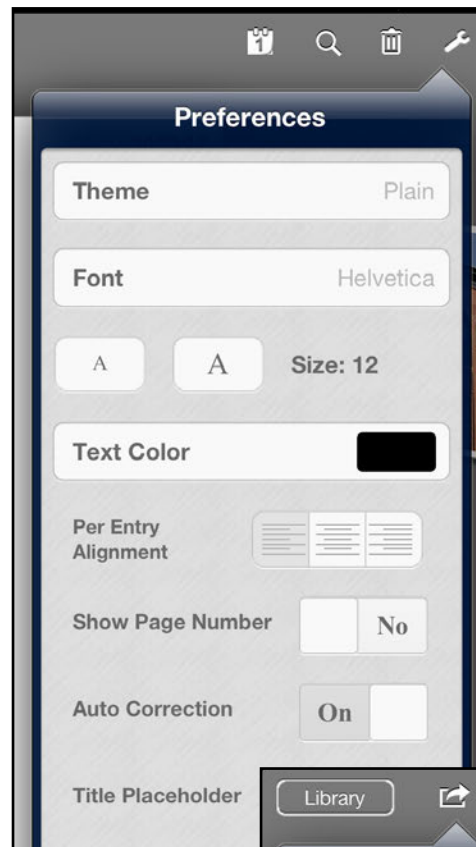
# myMemoir

myMemoir is a journaling app that lets you add photos and video to your text, and save as ePUB or PDF. Each “day” of the journal is a chapter in your ePUB.





# Create and Share





# Video, Whiteboard and Presentation Tools

## Pinnacle Studio (\$9.99)

Robust film-editing technology on the iPad.



## Doceri (Free)

Combining screencasting, desktop control, and an interactive whiteboard in one app.



## Penultimate (.99¢)

Note-taking, sketching app that stores and organize your thoughts in never-ending notebooks.



## Keynote (\$9.99)

Create and enhance presentations with elements such as tables, charts, media, and shapes.



# Pinnacle Studio

Pinnacle Studio is one of a few free video editing apps for the iPad. It is designed for editing on the go; which means you take footage or pictures taken with your iPad and use them to cut together videos that can be exported or shared directly online with a number of sites including YouTube.



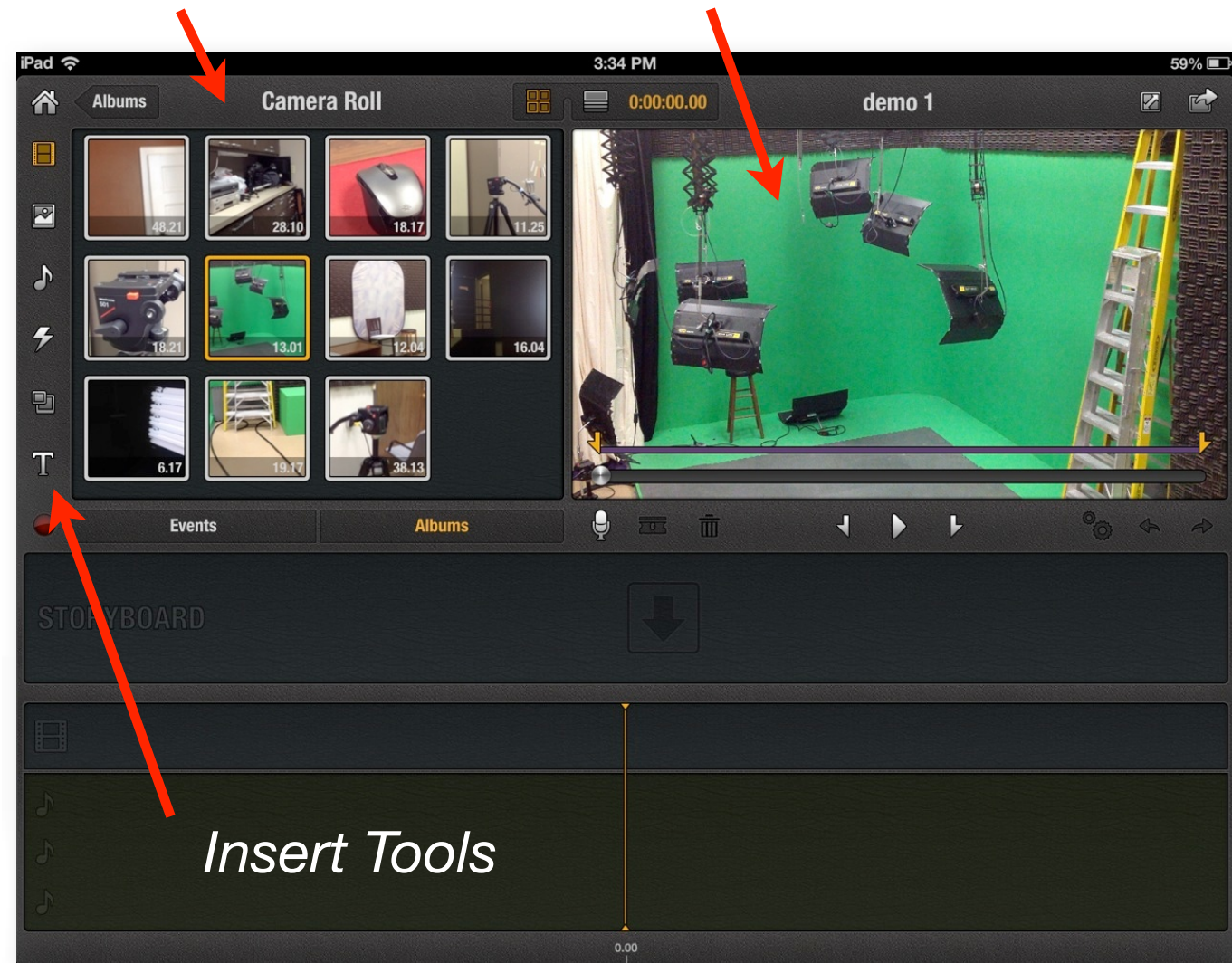
# Layout

The layout is pretty straightforward: clips are taken from your camera roll (top left of screen) and viewed in the preview pane (top right of screen).

The icons running vertically to the left of the camera roll give you simple tools for adding music, transitions, effects, text, and even the ability to record and import at the same time.

*Camera Roll*

*Preview Pane*

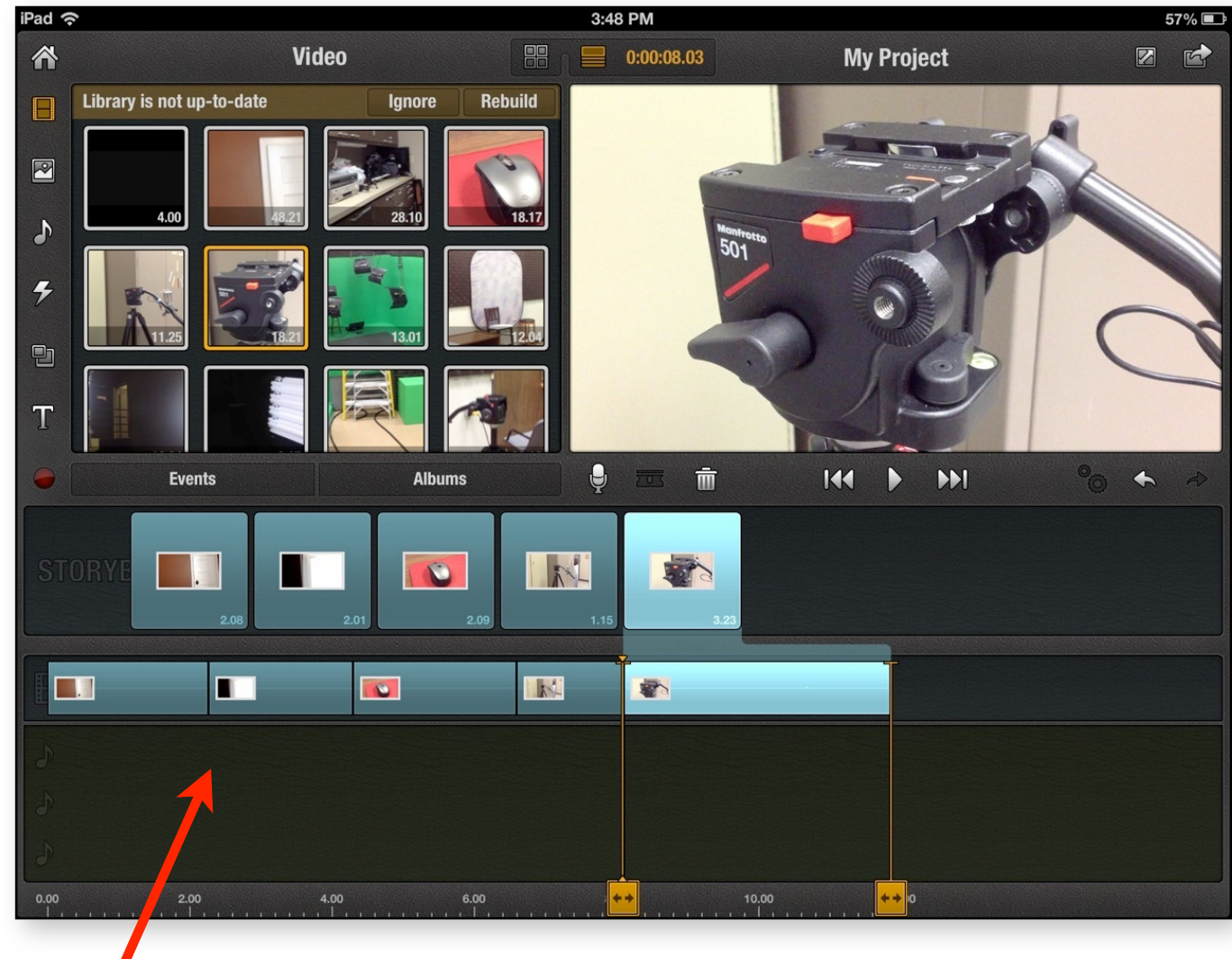




# Editing

When you are ready to start editing clips, you simply drag them from the camera roll into the timeline (bottom third of the screen) or tap and hold to bring up the precision editor.

The precision trimmer lets you cut/edit clips with a lot of accuracy. You can pause and playback the video using the controls under the preview pane.



*Precision Trimmer*

# Enhancement Tools

Once you've edited the basic footage into your timeline you can add music, effects, transitions, titles, etc. by tapping on the vertical insert tools in the top left side of the screen.

It's best to experiment with your first video project to learn what each tool does. A novice editor could learn all of the tools in this program in 30 minutes or less just by experimenting.

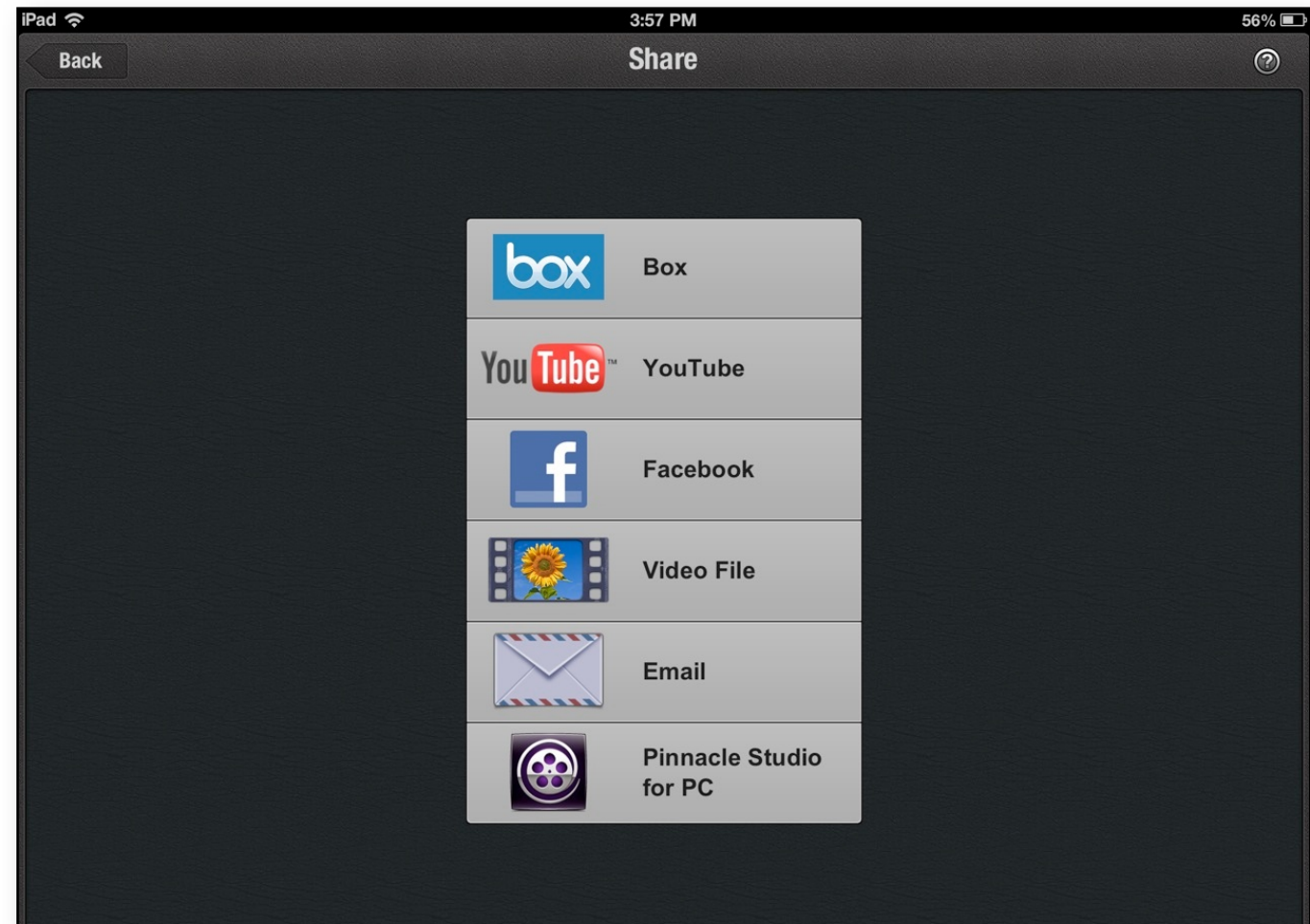




# Sharing

Once your video is complete, click on the share icon in the top right corner of the screen.

This will give you options for sharing the video content you have created. If all you want to do it make a video file that could be accessed for later, simply click on the video file button and the new video will be stored in your camera roll on the iPad.



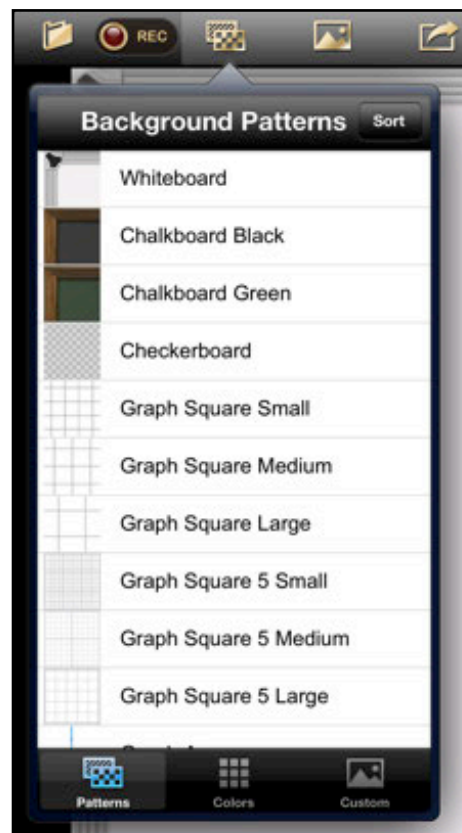
# Doceri

Doceri is the professional iPad interactive whiteboard and screencast recorder with sophisticated tools for hand-drawn graphics and built-in remote desktop control.

Doceri can also be used in presenting through a computer. The Doceri app links wirelessly with the Doceri Desktop application on the computer (Mac or PC) to display content.



# Options and Settings





# Content Creation

iPad 1:56 PM 32%

②③ Find the point where the 2 lines intersect and graph your solution.  
 $y = 2x + 1$   
 $y = -3x + 4$

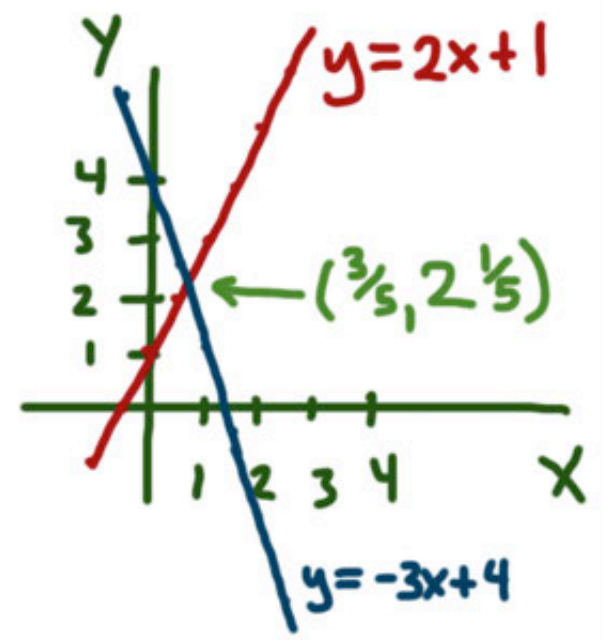
iPad 1:56 PM 32%

②③ Find the point where the 2 lines intersect and graph your solution.  
 $y = 2x + 1$   
 $y = -3x + 4$

Solution:  $2x + 1 = -3x + 4$   
 $-1 \quad -1$   
 $2x = -3x + 3$   
 $+3x \quad +3x$   
 $5x = 3$   
 $\frac{5}{5} \quad \frac{5}{5}$   
 $x = \frac{3}{5}$

$y = 2(\frac{3}{5}) + 1 = \frac{6}{5} + 1 = 1\frac{1}{5} + 1 = 2\frac{1}{5}$

Check:  
 $y = -3(\frac{3}{5}) + 4 = -\frac{9}{5} + 4 = -1\frac{4}{5} + 4 = 2\frac{1}{5} \checkmark$



# Featured Lessons/Samples

iPad 7:37 PM 81%

Subject Area Featured Lessons



PHASE DIAGRAMS  
States Of Matter by Chris Ming

Pythagorean Theorem  
What Is The Pythagorea... by Debra Porowski

Karyotype - Intro To Gen...  
by Jeremy Reichel

Acids And Bases  
by Chris Ming

Muscular System  
by Alistair Williamson

Lewis And Clark  
by Rex Stephenson

Pythagorean Theorem  
by Jason Fournier

Review: Parts of the Cell  
by Julia Hum

MODE  
by Peggy Scripter

Unit 9 -- The Gas Laws  
by Paul Groves

Transformations  
by Peggy Scripter

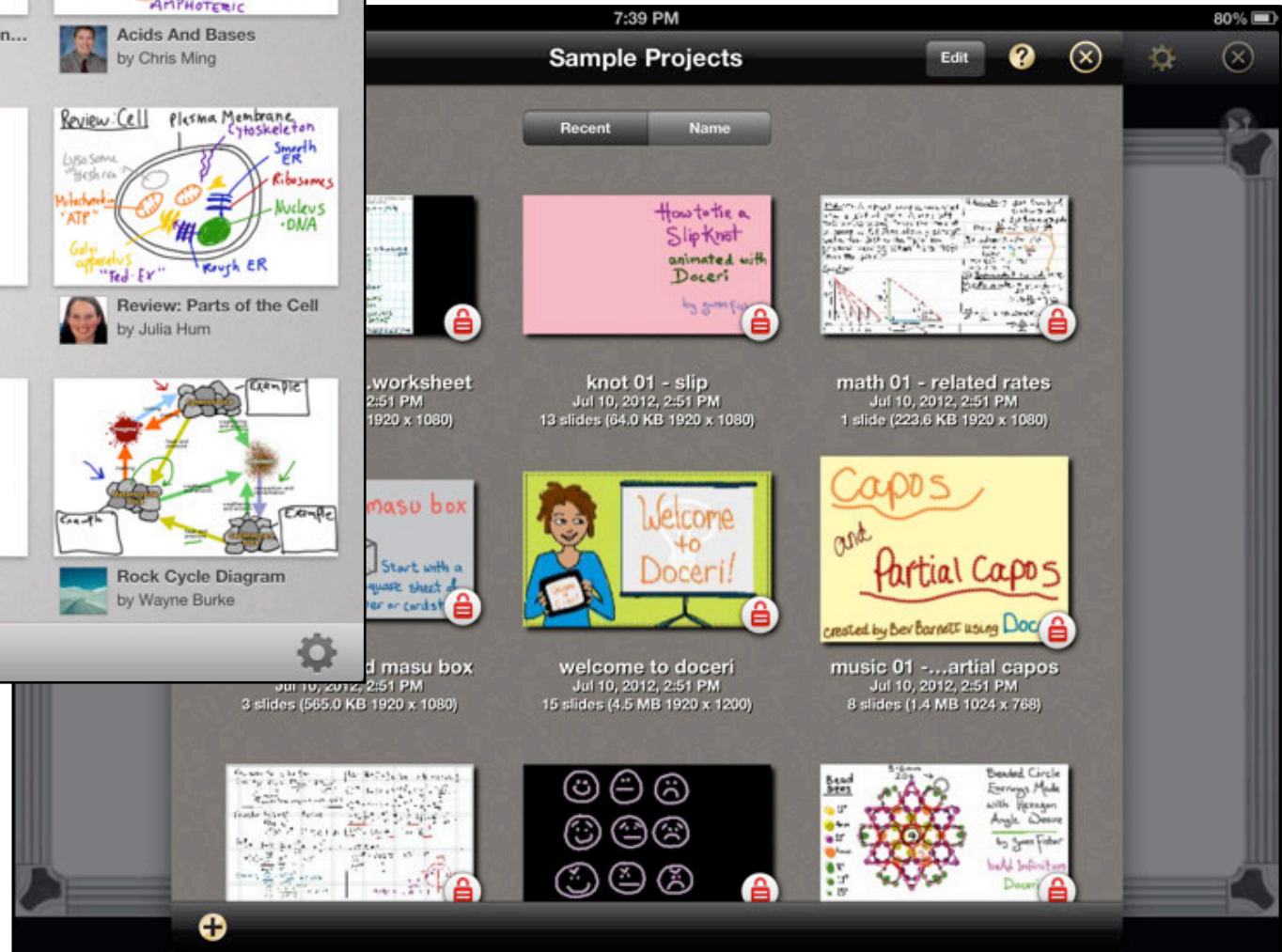
Rock Cycle Diagram  
by Wayne Burke

My Lessons Featured

7:39 PM 80%

Sample Projects

Recent Name



How to tie a Slipknot animated with Doceri  
by gwen f...  
knot 01 - slip  
Jul 10, 2012, 2:51 PM  
13 slides (64.0 KB 1920 x 1080)

math 01 - related rates  
Jul 10, 2012, 2:51 PM  
1 slide (223.6 KB 1920 x 1080)

welcome to doceri  
Jul 10, 2012, 2:51 PM  
15 slides (4.5 MB 1920 x 1200)

music 01 - ...artial capos  
Jul 10, 2012, 2:51 PM  
8 slides (1.4 MB 1024 x 768)

+



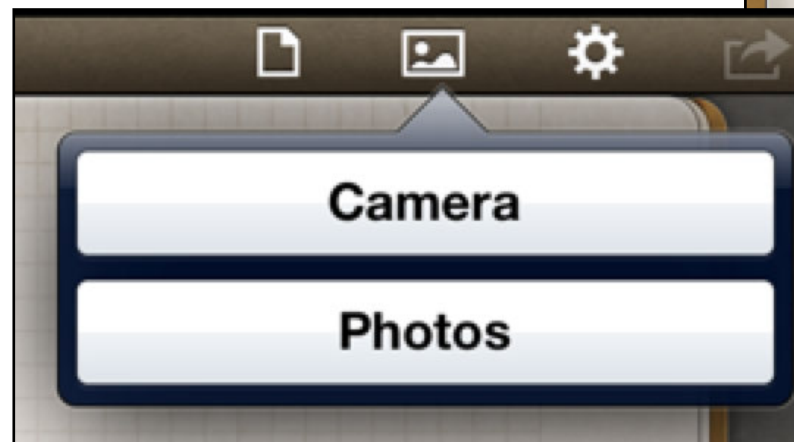
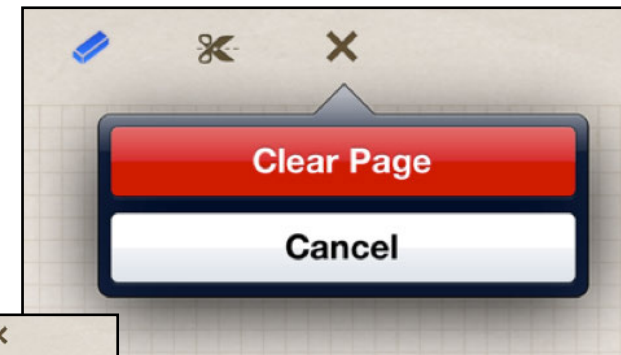
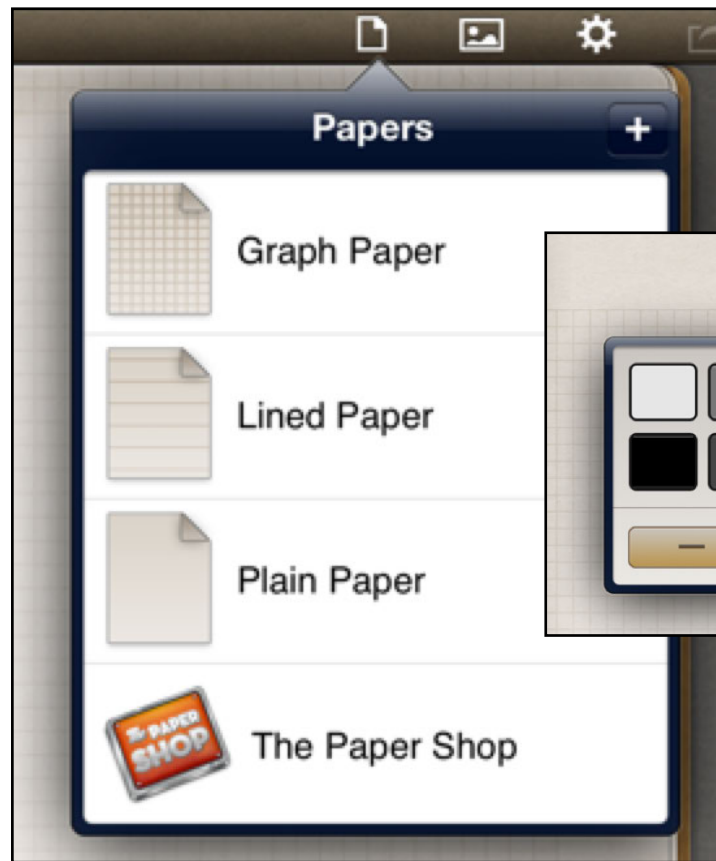
# Penultimate

The Penultimate app has many possibilities as a presentation tool. It is great for taking notes, and it can be preconfigured to show information that you want to present, or used in real-time, as a whiteboard.

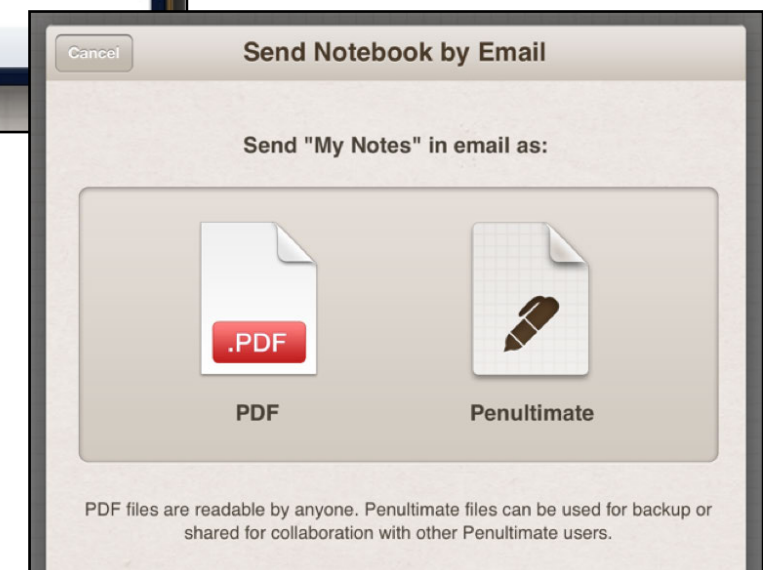
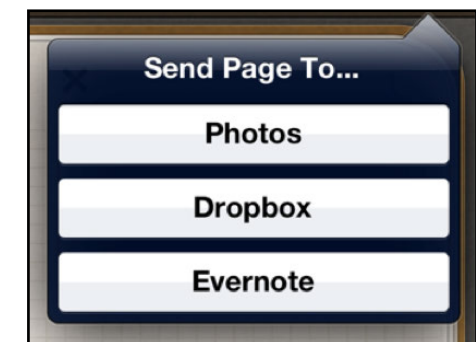
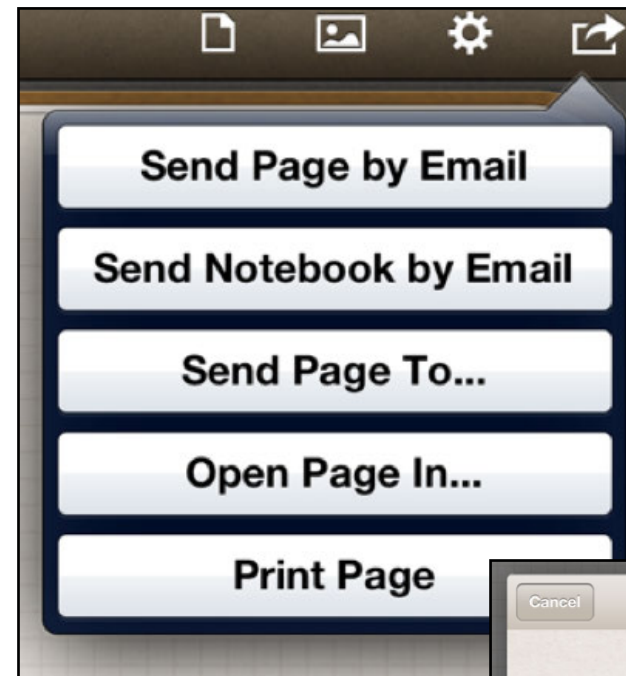
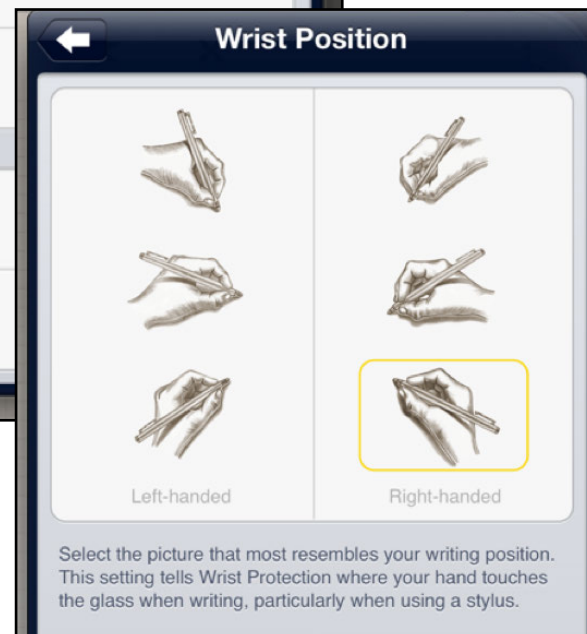
When you are presenting, it shows through the projector or display as a whiteboard. The tools that you see and use will not be visible on the projected view.



# Tools



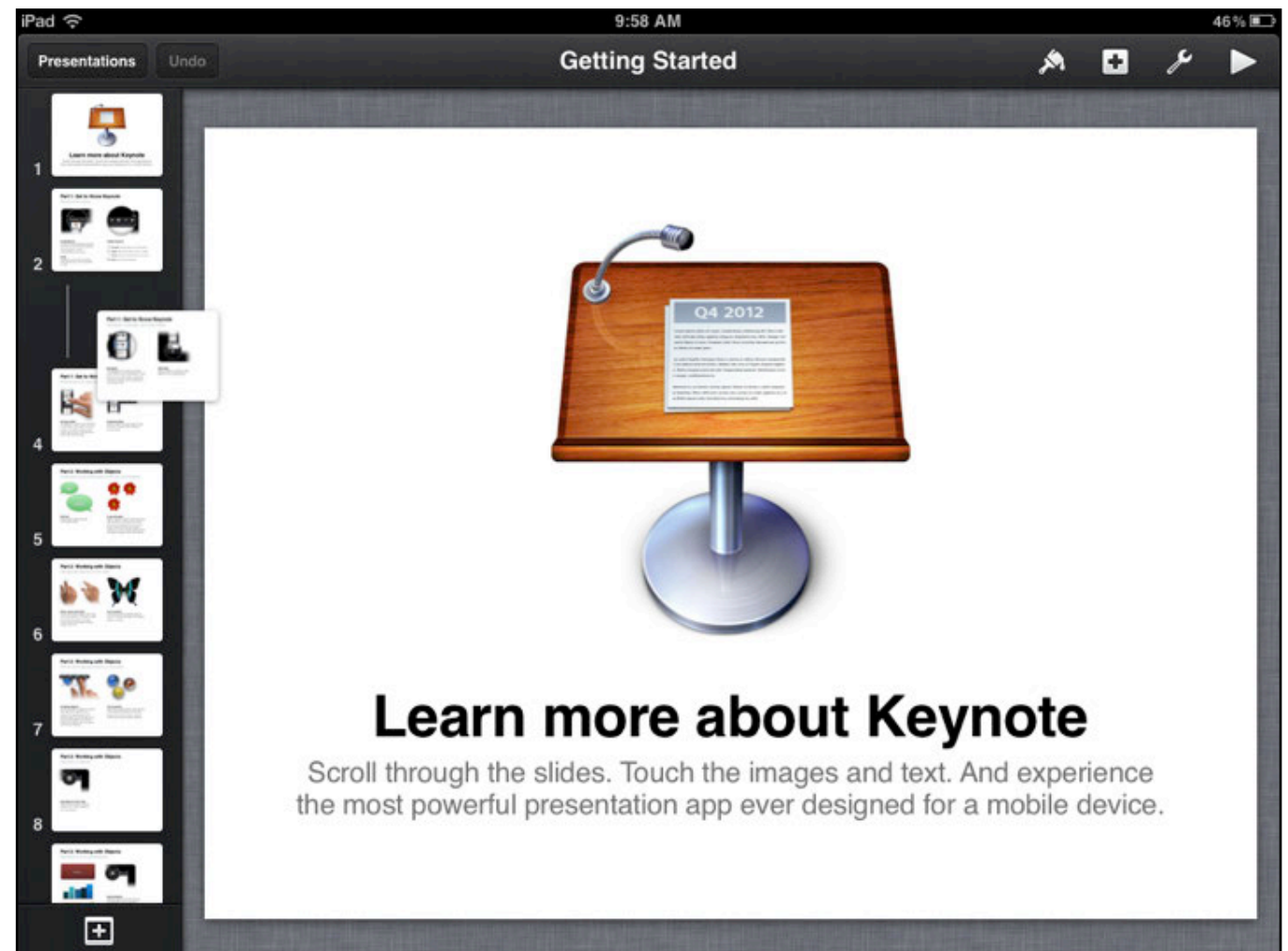
# Settings and Sharing



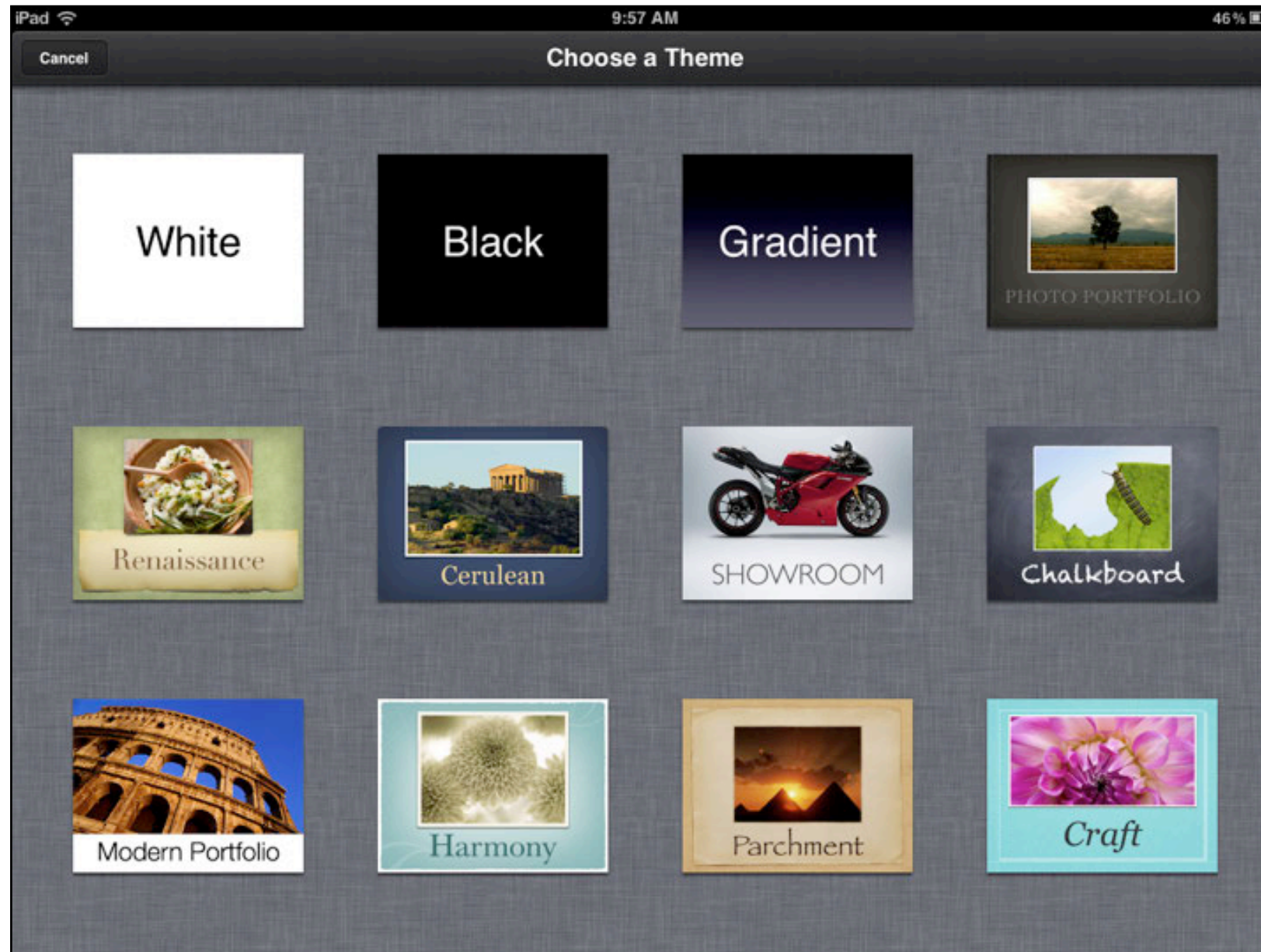


# Keynote

Keynote is a feature-rich presentation app that is built and maintained by Apple for the iPad. It allows you to create new presentations, edit existing ones, and export presentations in either Keynote, Microsoft PowerPoint, or PDF formats.



# Templates



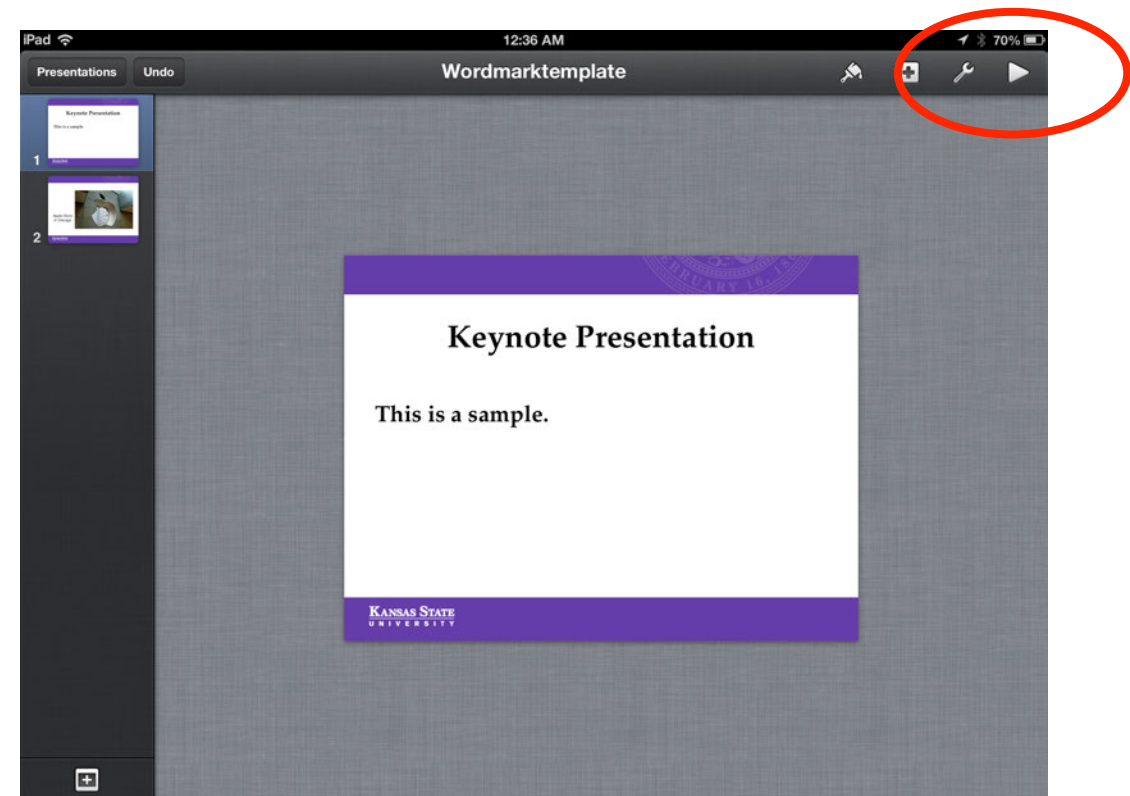
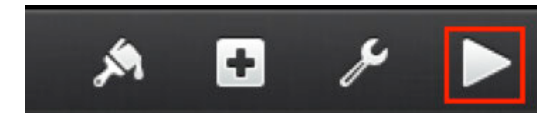
# Format, Insert, Transition





# Share and Present

For sharing a presentation between yourself and others, PowerPoint is the best option.



# Sharing Digital Content

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# GoodReader App

GoodReader lets you view and organize a wide variety of documents, annotate PDFs, password protect files, access and sync files from servers and websites, and transfer files wirelessly to your iPad.

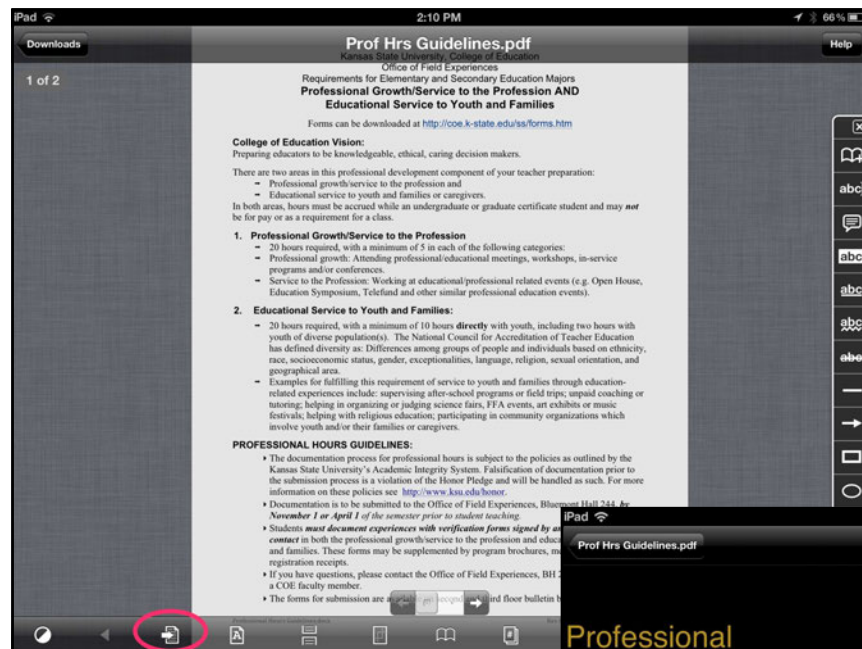


The following file types can be viewed in GoodReader:

- ▶ very large PDF or TXT files
- ▶ high-resolution images (jpg, tif, png, bmg) and graphic files (ai)
- ▶ Microsoft Office files (Word/PowerPoint/Excel)
- ▶ HTML files and Safari webarchives
- ▶ iWork files (Pages/Numbers/Keynote)
- ▶ audio files (mp3, m4a, aac, aif, wav)
- ▶ video files (mov, mp4, m4v)
- ▶ zip files

# PDF Reflow

The PDF Reflow feature will extract all of the text from a single page of a PDF file for use in another app.



Professional  
Hours  
Guidelines.docx

Rev  
8/20/12

Kansas State University, College of Education Office of Field Experiences Requirements for Elementary and Secondary Education Majors Professional Growth/Service to the Profession AND Educational Service to Youth and Families

Forms can be downloaded at <http://coe.k-state.edu/ss/forms.htm>

College of Education Vision: Preparing Educators to be

Text Copied to Clipboard

The entire page has been  
successfully copied to clipboard

OK

# Use of Cloud Servers

## Dropbox (Free 2GB account)

Easy way to sync files across computers, phones, and tablets. It stores your files in a Dropbox “cloud” for you to access anywhere Internet is available. Accessible in many iPad apps.



## iCloud (5GB Free)

Combining screencasting, desktop control, and an interactive whiteboard in one app.



## Google Docs (Free)

Set of productivity apps that let you create different kinds of online documents, work on them in real time with other people, and store them in your online Google Docs.



# Presentation Solutions

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# AirPlay

In order to use AirPlay, an Apple TV is necessary. Make sure that the equipment or the room are setup for using the Apple TV AirPlay system.



*Apple TV is a digital media receiver that lets you wirelessly stream content from your iPad to an HDTV.*

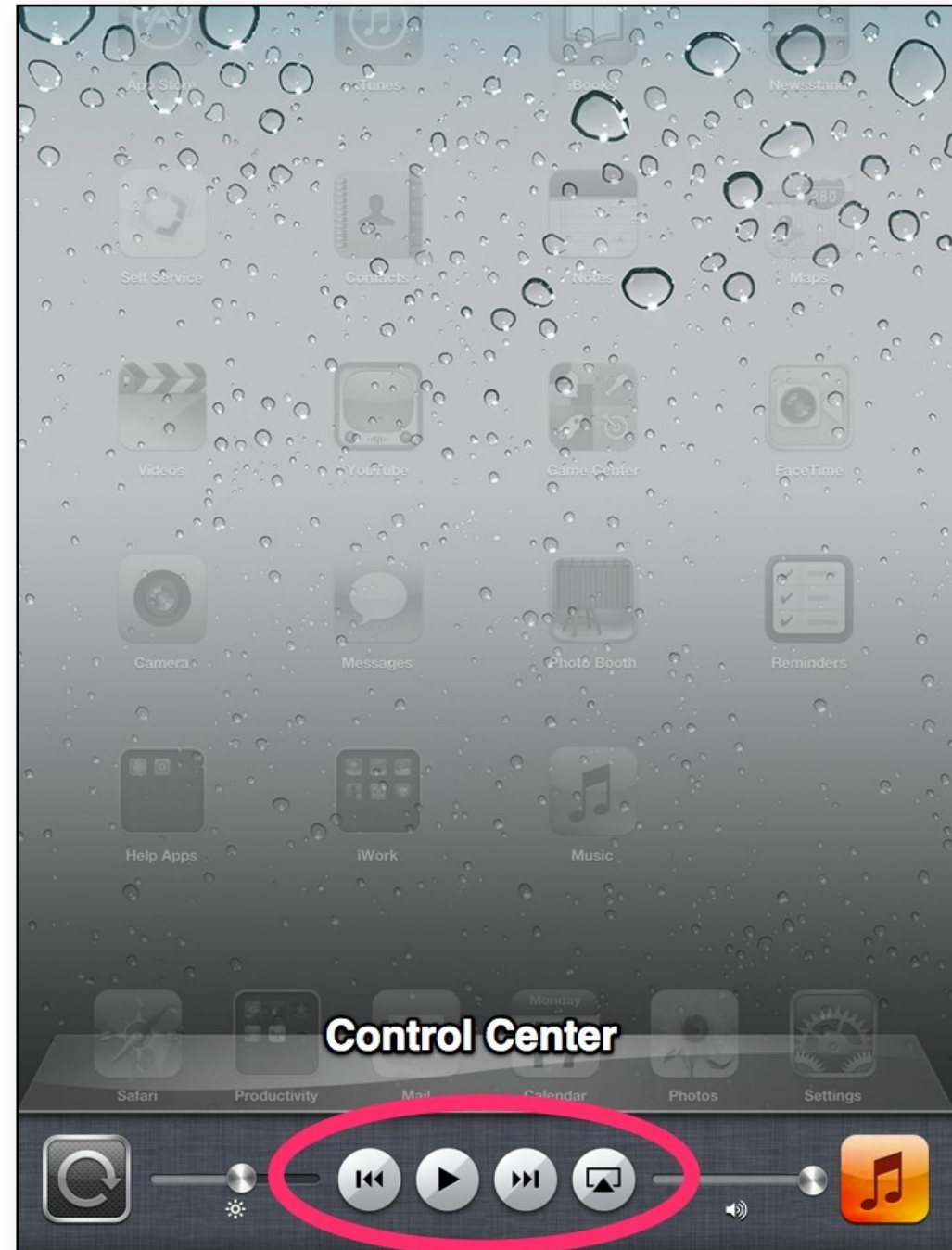


# Connecting to AirPlay

To connect to Airplay, double tap the home button. Scroll the Multitask bar to the right until you get to the control center, then select the **AirPlay** button.



*AirPlay button*





# Passwords and Mirroring

AirPlay-enabled sites will be shown in a list; select the site you will be using and enter the **password** for the room. If you have connected with this room before, you may not be asked for the passcode.

In order to see your iPad's display on the Apple TV, **Mirroring** will need to be turned to **ON**.



# iPad VGA Adapter

The Apple iPad VGA adapter is used to connect your iPad to a TV, monitor, projector, or LCD display that uses a VGA connector.



# iPad VGA Adapter

## PROs



- ▶ The adapter works great with most video projectors, monitors and TV displays.
- ▶ Most media systems have VGA connections.
- ▶ Easily connects.
- ▶ Great when there is no other way to present.

## CONs



- ▶ Mobility is limited by the length of the VGA cable.
- ▶ Not all applications will project correctly.
- ▶ Does not carry audio.



# Reflection

Mirrors the iPad wirelessly through the Reflection app on the computer.

Also lets you capture screen of the iPad and save as video file.

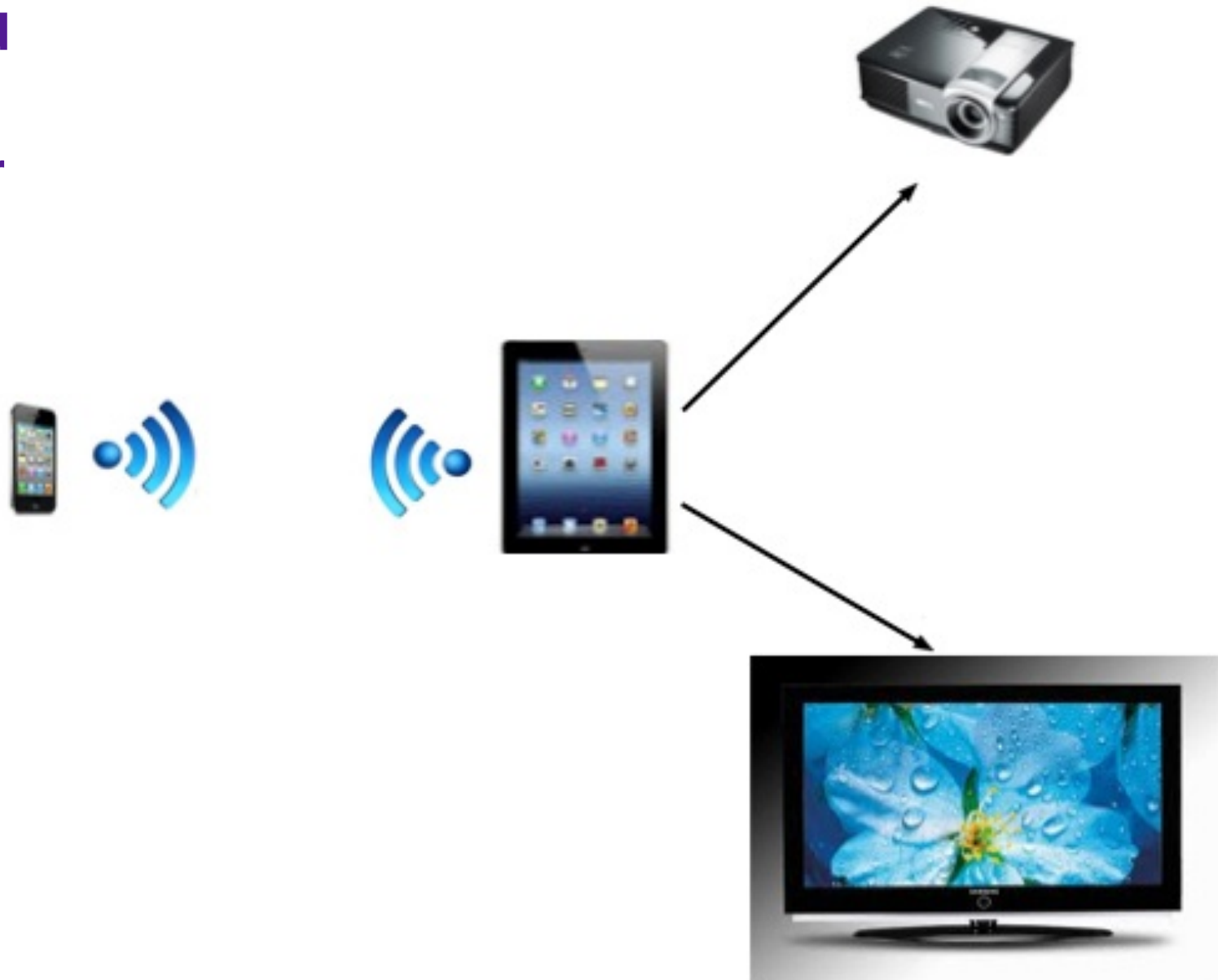
Single user: \$14.99

5-seat license: \$49.99



# Keynote Remote App for iOS

Use an iPhone, iPod or iPad as a remote to control Keynote presentations over a Wifi network or Bluetooth connection.





# Authentication and Usage



## Authentication is required.

Keynote Remote will give you a 4-digit passcode to enter in Keynote.

## Landscape mode:

See the current and the next slide.

## Portrait mode:

See the current slide and presenter's notes.

