



Digital Content Strategies for your Mobile Curriculum

Lessons Learned from
UC Irvine's iMedEd Initiative

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iMedEd



Comprehensive “reboot” of the medical school curriculum



iMedEd Initiative Year 1 and 2



Over 210 iPads & cases

13 digital textbooks

Apps and Online subscriptions

Over 50 Faculty & Staff iPads

Podcast Capture System (Mediasite)

Updated Content Management System



UNIVERSITY of CALIFORNIA • IRVINE



*Where did
funding come
from?*

Scholarship
Donation

*16, 32, or
64GB?*

16 GB

WiFi or 3G?

3G

*Device
ownership?*

Students



Why change?

Where do we start?



product/platform
infrastructure
audience
CONTENT
vendors
timeline
functionality
funding/justification
training
assumptions



Product /
Platform

Infrastructur
e

Audience

Content

Timeline

Functionality

Funding

Training

- iOS - iPhone, iPad, iPod
- Android OS - which hardware
- Laptop or Netbook?
- 3G or WiFi
- Battery and Product Lifespan



Product /
Platform

Infrastructure

Audience

Content

Timeline

Functionality

Funding

Training

- 3 devices per student
- Clinical Informatics
- Support
- Economies of Scale



Product /
Platform

Infrastructur
e

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Funding

Training

- Limited Pilot vs Full Implementation
- Students
- Faculty
- Staff



Product /
Platform

Infrastructur
e

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Functionality

Funding

Training

- Yearly Budgets
- Curriculum Planning



Product /
Platform

Infrastructur
e

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Funding

Training

- Just textbooks?
- Small groups?
- What else would you use it for?



Product /
Platform

Infrastructur
e

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Funding

Training

- Grants
- Fees
- How do you justify the cost per student
- Justifications are not just limited to academics



Product /
Platform

Infrastructur
e

Audience

Content

Timeline

Functionality

Funding

Training

- How much time do you need?
- Who do you train?
- Who will train them?
- How do you train them?
- Do they have a baseline competency?



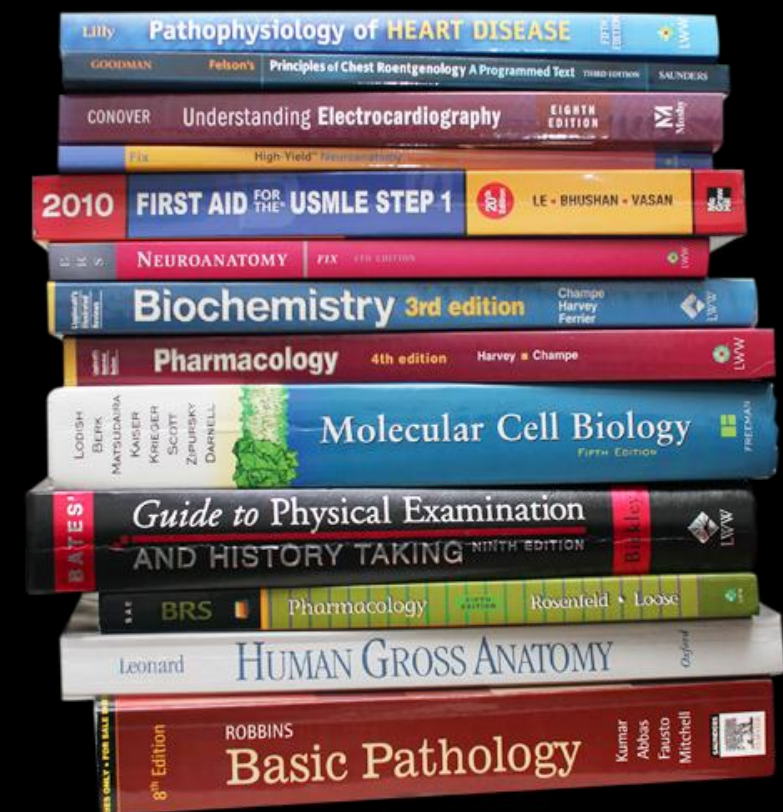
CONTENT

Scope

Types

Evaluate

Challenges



CONTENT

Scope

Types

Evaluate

Challenges

- Basic Sciences
- Clinical Sciences
- Function-specific pilot programs
- Anatomy and wet labs
- Clinical Rotations
- Shared or individual content

CONTENT

Scope

Types

Evaluate

Challenges

Handouts
CD/DVD
Textbooks

PDFs
Podcasts
E-books
Web-based
Apps

iBooks
Vodcasts



CONTENT

Scope

Types

Evaluate

Challenges

- Critically evaluate current content
- Content/vendor mapping

CONTENT

Scope

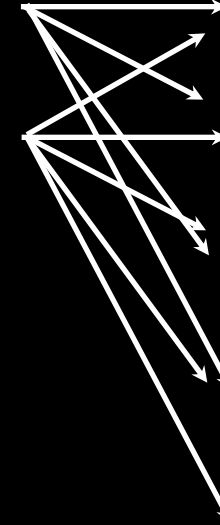
Types

Evaluate

Challenges

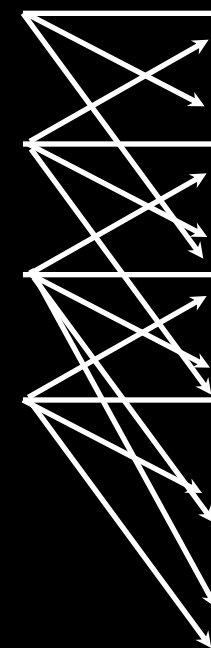
Powerpoint
Core Notes

Keynote
PDF
iBooks
eBooks
Wiki



Lippincott Wolters Kluwer
Elsevier
Lange
McGraw Hill

VitalSource
Inkling
Kno
CourseSmart
Publisher App
Modality Body



CONTENT

Not all digital textbooks created equally

Scope

Types

Digital **Replication**

Digital **Transformation**

VitalSource

Inkling

CourseSmart

ModalityBody

Kno

Publisher App

Evaluate

Challenges

CONTENT

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II. FLUID MOSAIC MODEL OF THE PLASMA MEMBRANE

A. The **lipid bilayer** (Figures 1.1, 1.2, and 1.3) is freely permeable to small, lipid-soluble, nonpolar molecules but is impermeable to charged ions.

1. **Molecular structure.** The lipid bilayer is composed of phospholipids, glycolipids, and cholesterol, of which, in most cells, phospholipids constitute the highest percentage.

a. **Phospholipids** are **amphipathic** molecules, consisting of one **polar (hydrophilic)** head and two **nonpolar (hydrophobic)** fatty acyl tails, one of which is usually unsaturated.

b. The two leaflets are not identical; instead the distribution of the various types of phospholipids is asymmetrical.

(1) The **polar head** of each molecule faces the membrane surface, whereas the **tails** project into the interior of the membrane, facing each other.

(2) The **tails** of the two leaflets are mostly 16–18 carbon chain fatty acids, and they form weak **noncovalent** bonds that attach the two leaflets to each other.

c. **Glycolipids** are restricted to the extracellular aspect of the outer leaflet. **Polar carbohydrate residues** of glycolipids extend from the outer leaflet into the extracellular space and form part of the **glycocalyx**.

1

Highlights sync to your iPad and notes are seen as a “sticky note” icon

permeable to charged ions.

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Show Note

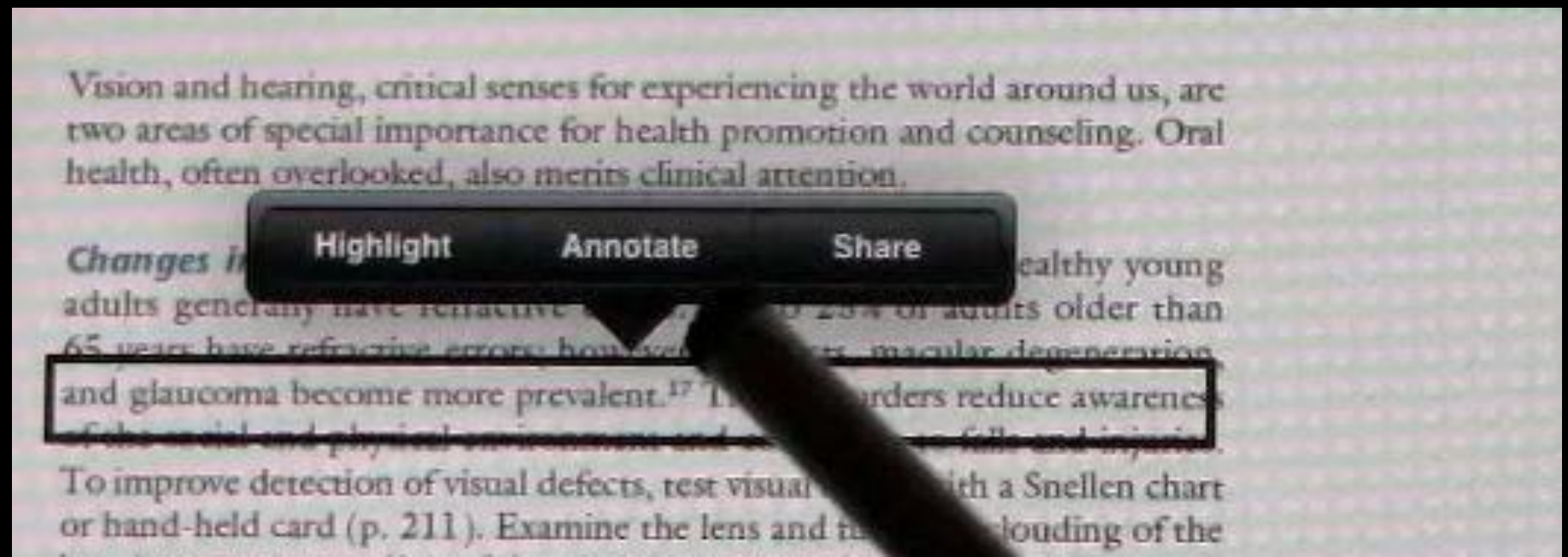
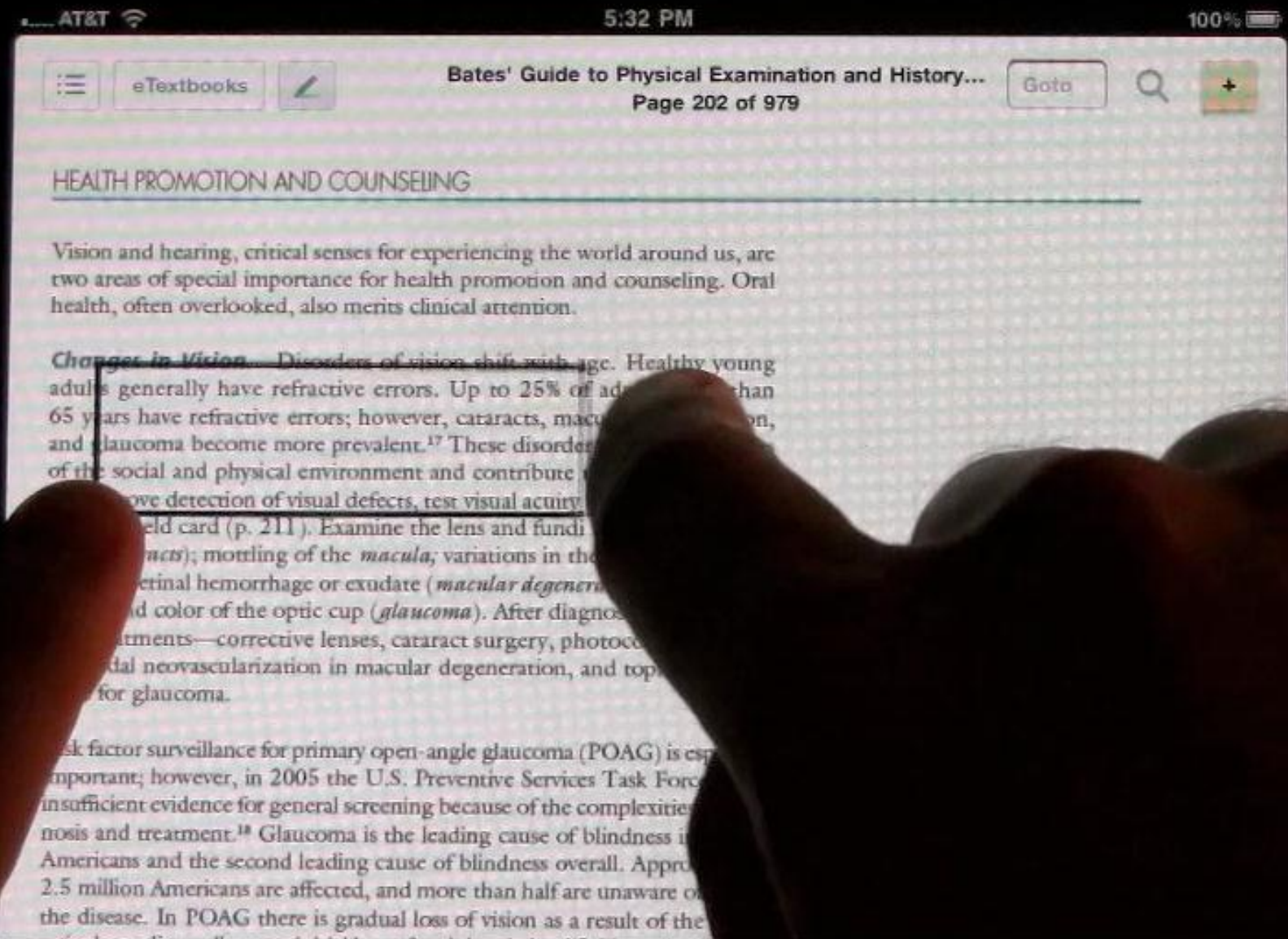
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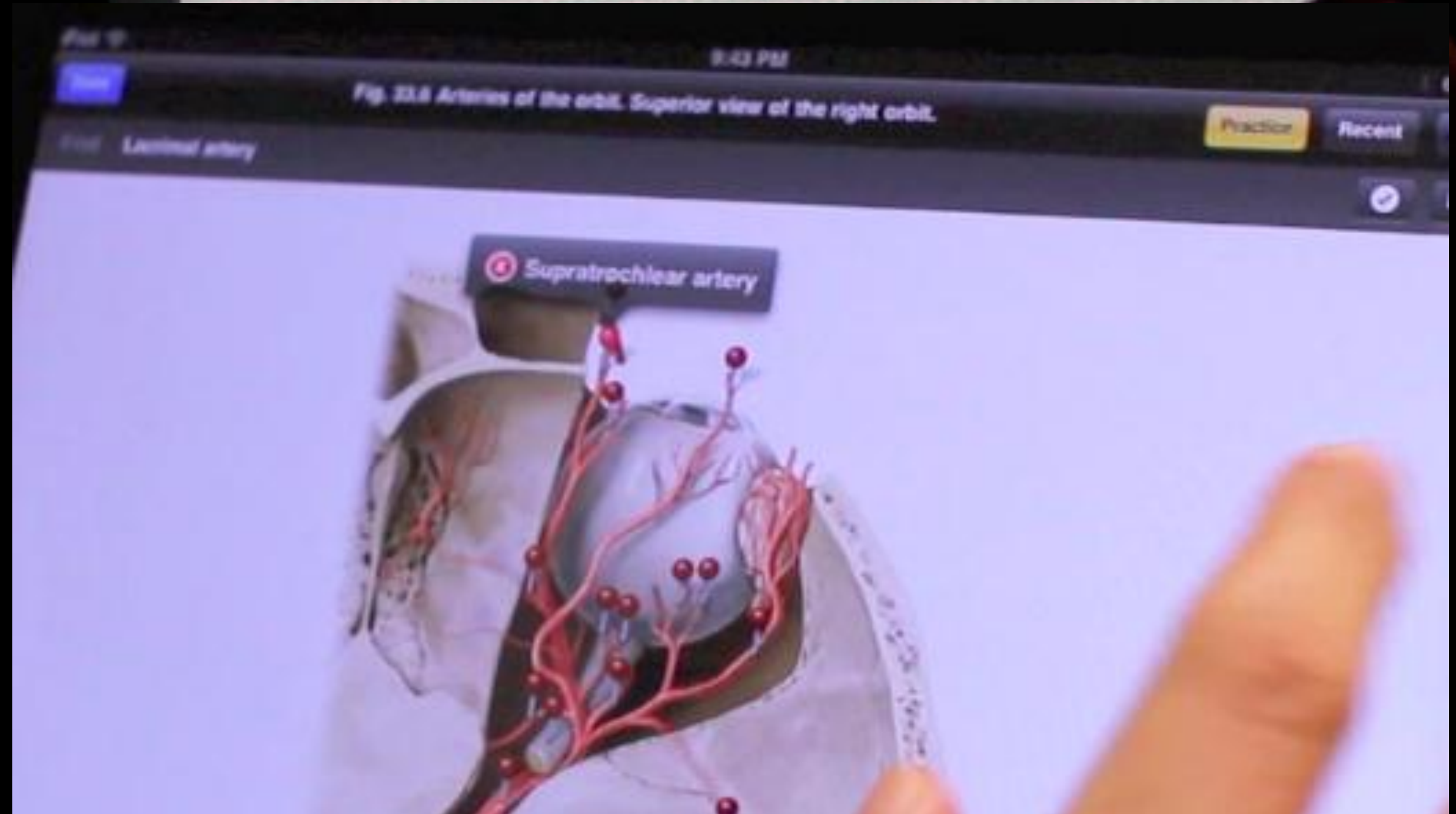
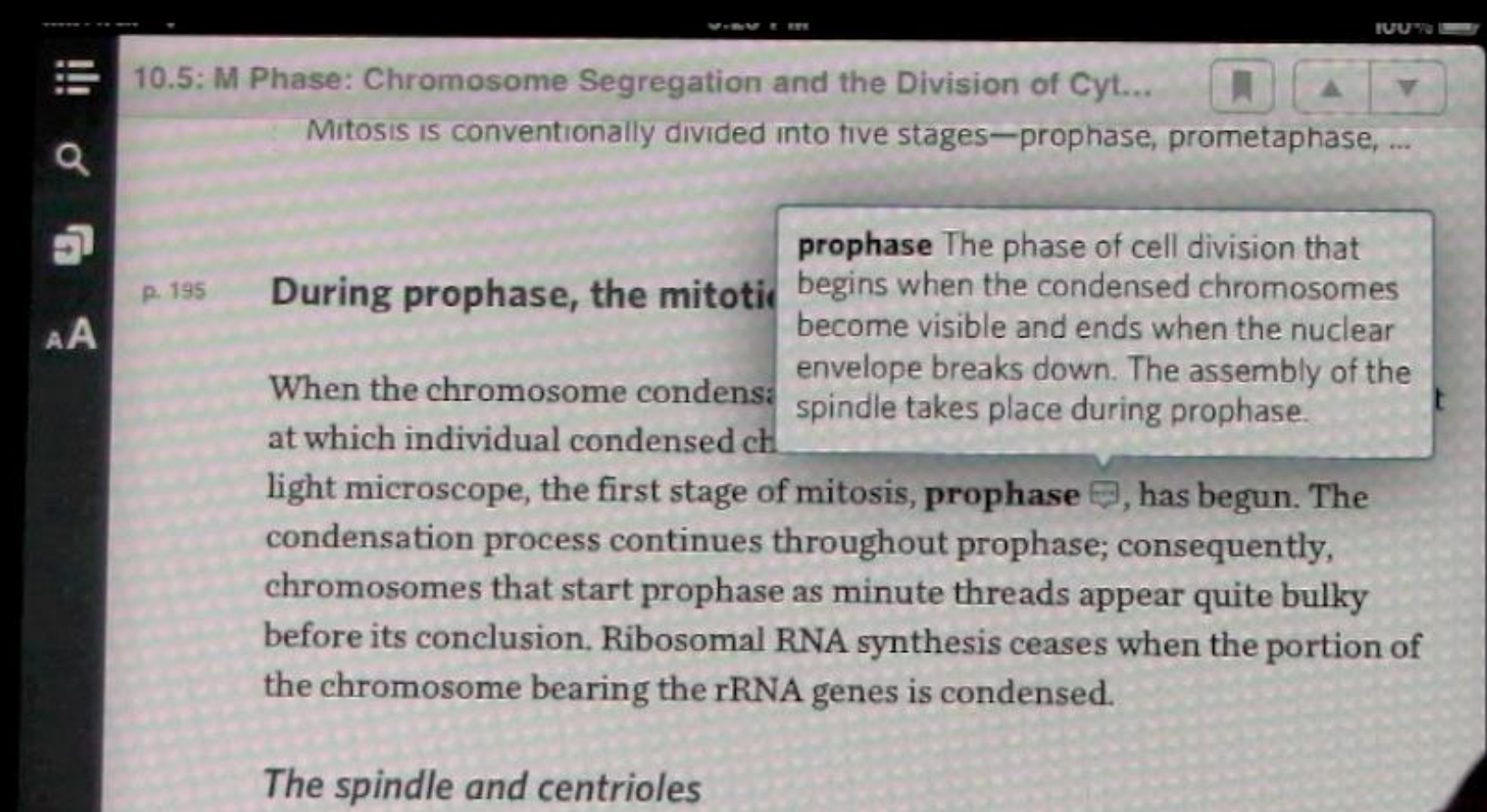
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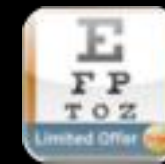


CONTENT

APPS



Scope



Types



Evaluate

Challenges

How do you find apps?
How do you evaluate apps?

CONTENT

Scope

Types

Evaluate

Challenges

Textbooks

- Simultaneous consolidation and fragmentation of material on one device
- What if not all of your content is available?
- Purchasing - who pays? who manages contacts?
- Role of the medical librarian
- Bookstore backlash?
- Distribution of digital content

CONTENT

Scope

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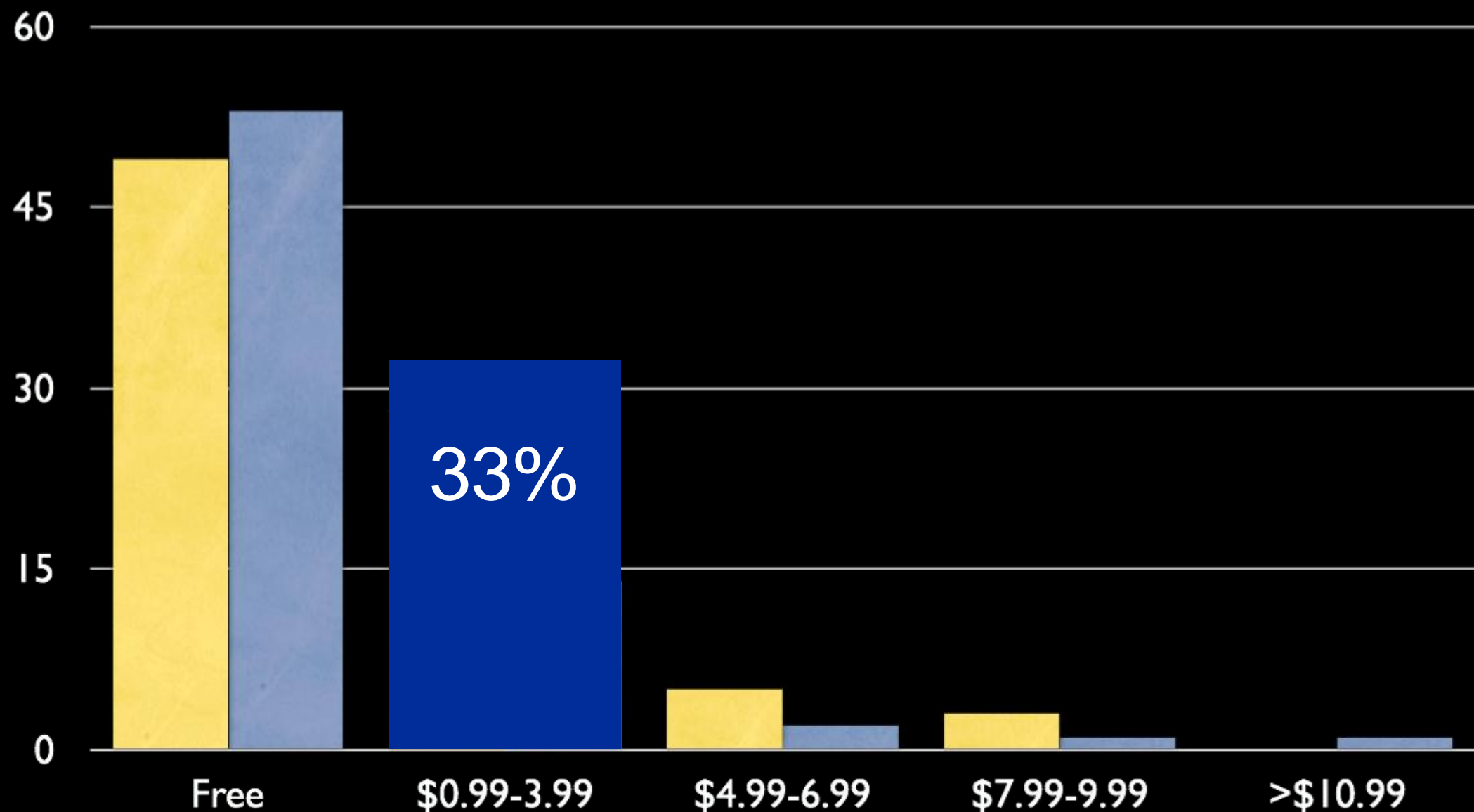
Apps

- Are app reviews pertinent to your user group?
- How do you “bulk purchase” apps?
- How do you distribute app codes?
- Who will pay for the apps?



52% of students feel that cost is a significant factor in App Store purchases

Average Paid for an iPad App End of Year



CONTENT

Funding

- School vs individual purchases
- How do you justify this budget?

Scope

Types

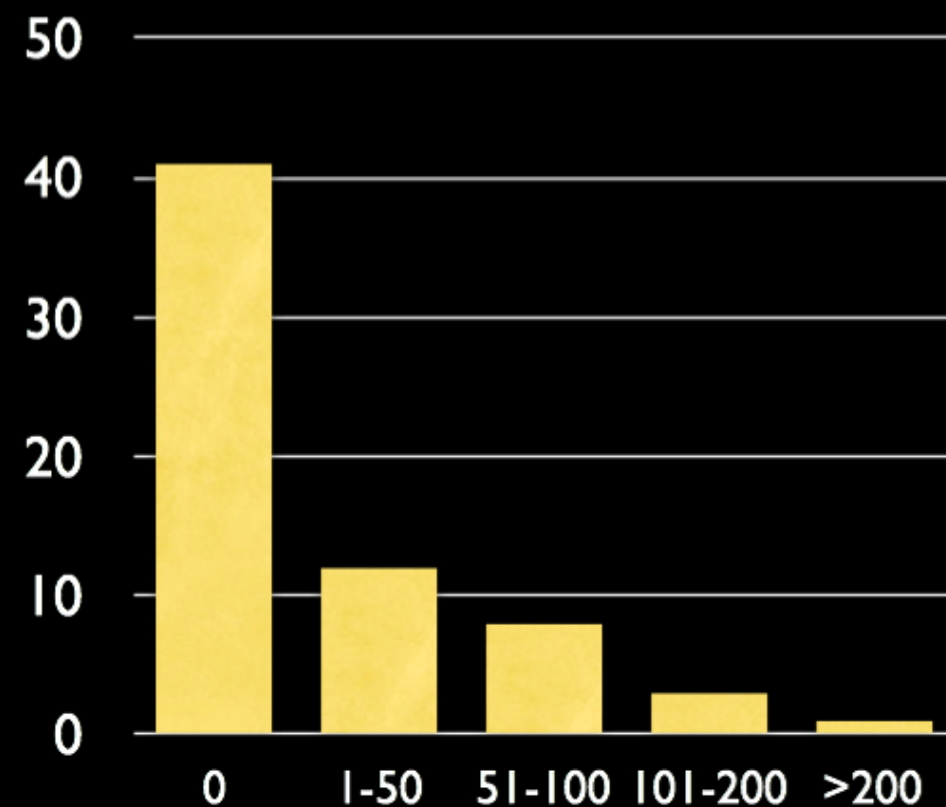
Evaluate

Challenges



\$918

\$217 last year
\$32 this year



CONTENT

Scope

Types

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Challenges

Support

- Who will support and troubleshoot textbook and app problems?
- How extensive will that coverage be? (i.e. Sunday night before exam)
- Device troubleshooting
- Backups
- Upgrades
- Training
- **EXPECTATION MANAGEMENT**

Questions? Comments? Discussion Points?

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