

## Digital Content Strategies for your Mobile Curriculum

Lessons Learned from UC Irvine's iMedEd Initiative

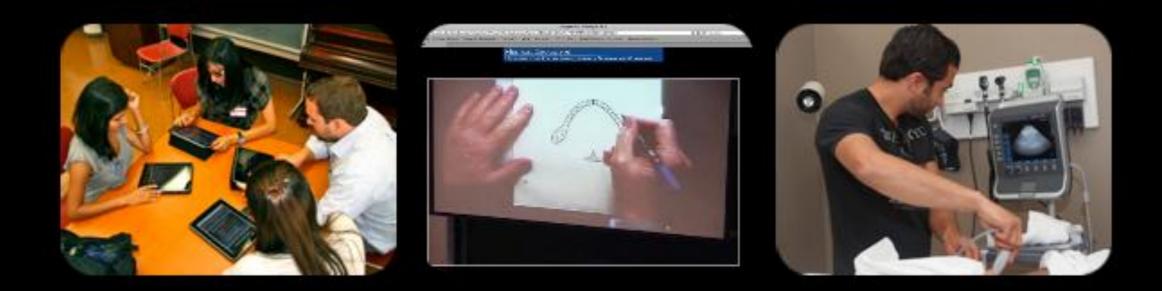
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## iNedEd





### Comprehensive "reboot" of the medical school curriculum



### iMedEd Initiative Year 1 and 2

#### Over 210 iPads & cases

13 digital textbooks



Apps and Online subscriptions

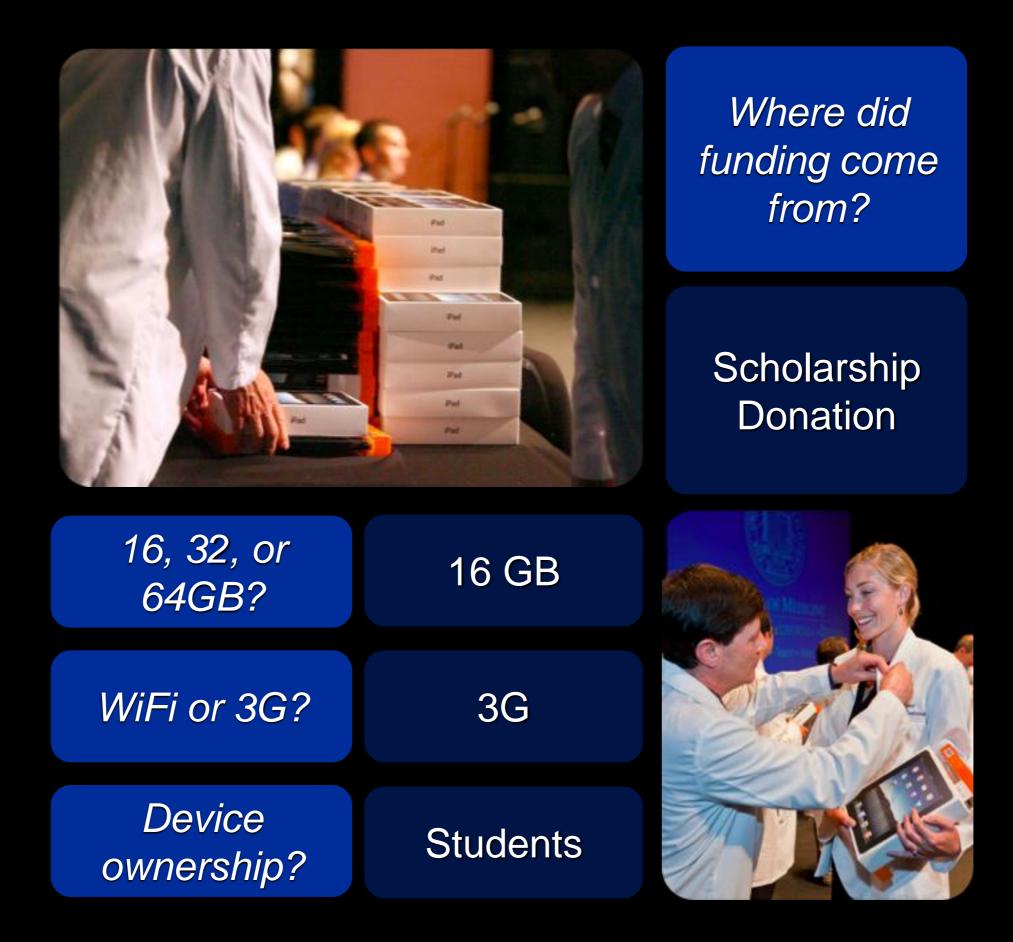
Over 50 Faculty & Staff iPads

Podcast Capture System (Mediasite)

Updated Content Management System



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## Why change?

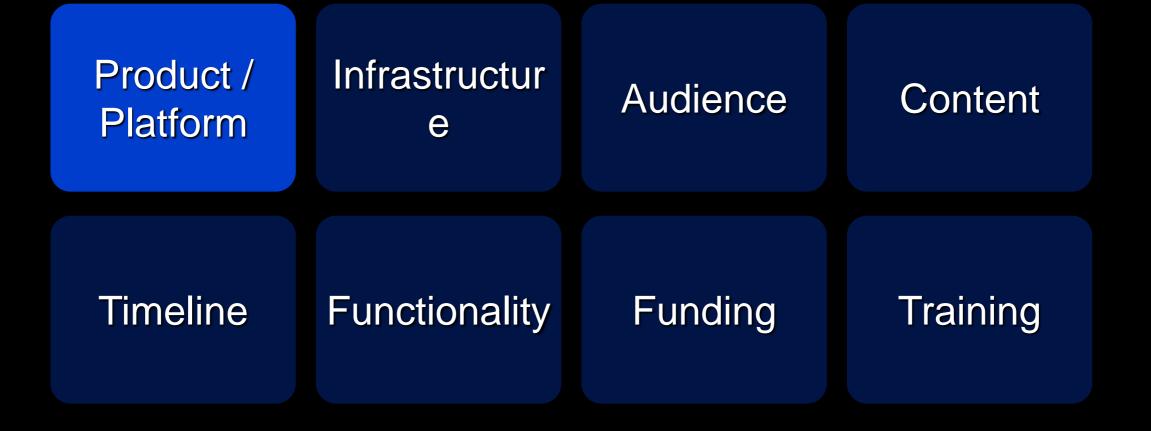


### Where do we start?



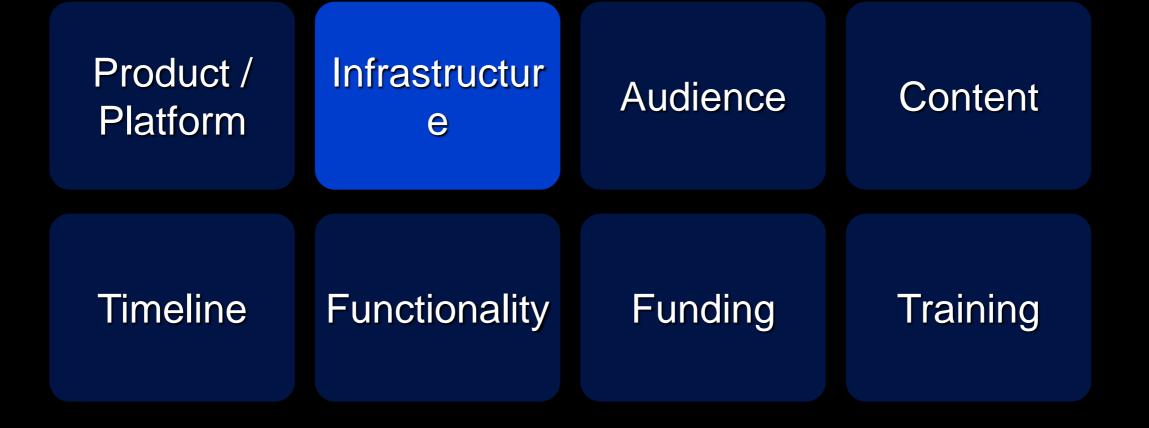
product/platform infrastructure audience CONTENT vendors timeline functionality funding/justification training assumptions

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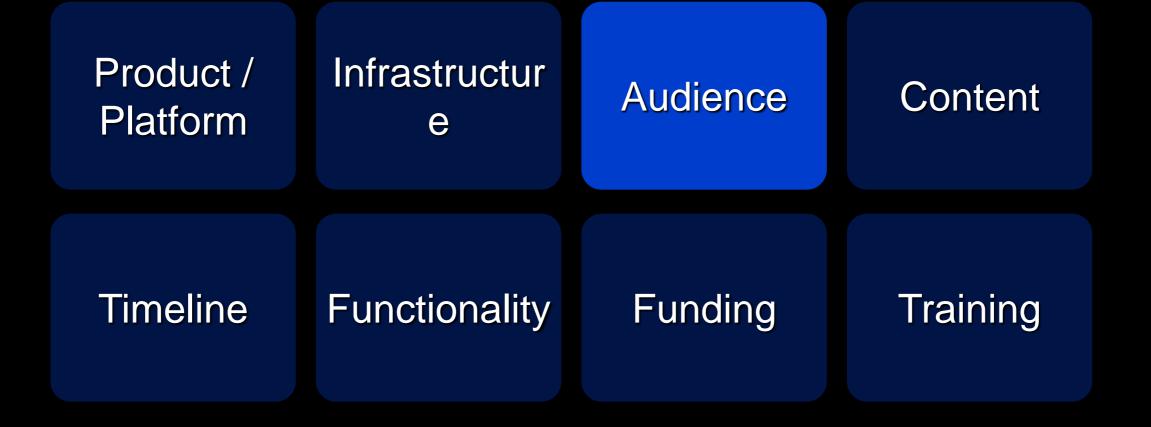
- iOS iPhone, iPad, iPod
- Android OS which hardware
- Laptop or Netbook?
- 3G or WiFi
- Battery and Product Lifespan





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





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



Product / Platform	Infrastructur e	Audience	Content
Timeline	Functionality	Funding	Training

- Yearly Budgets
- Curriculum Planning





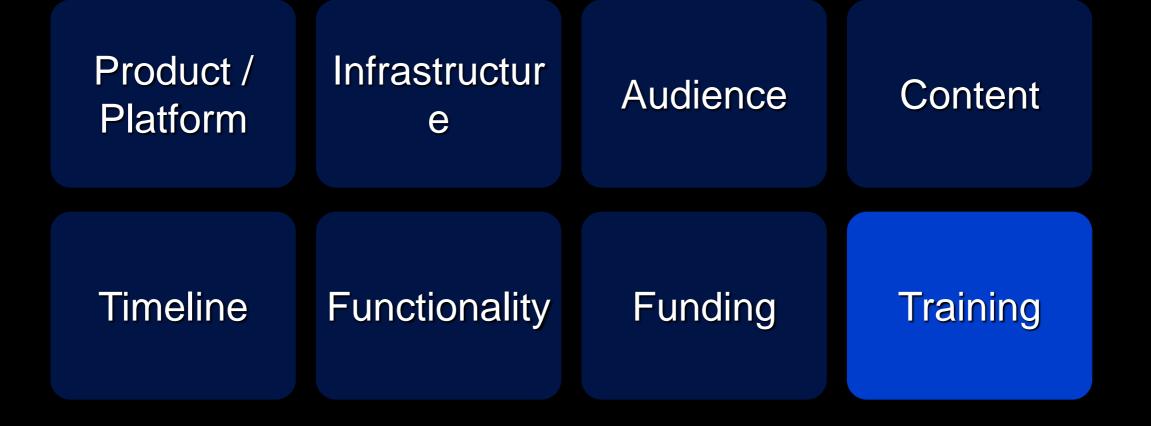
- Just textbooks?
- Small groups?
- What else would you use it for?





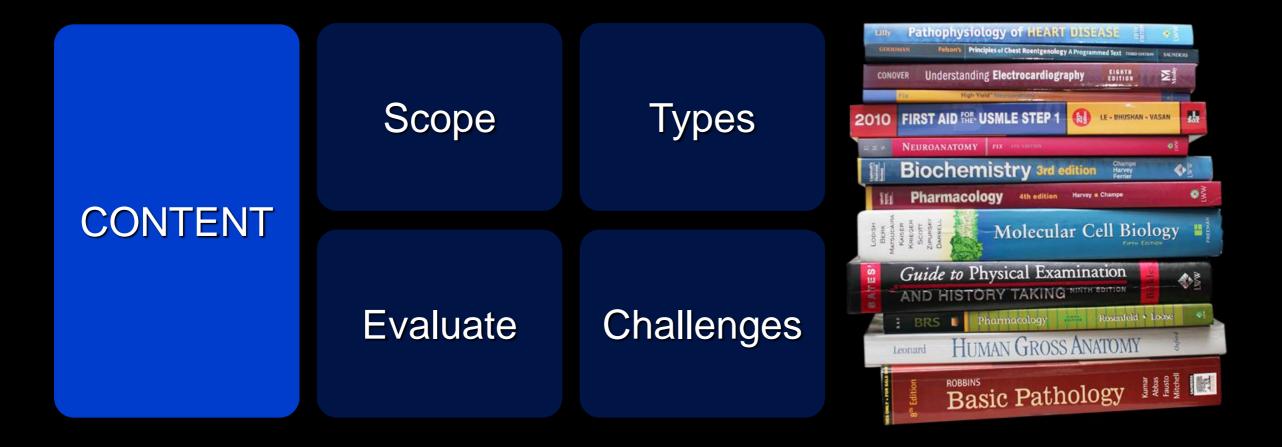
- Grants
- Fees
- How do you justify the cost per student
- Justifications are not just limited to academics





- 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?





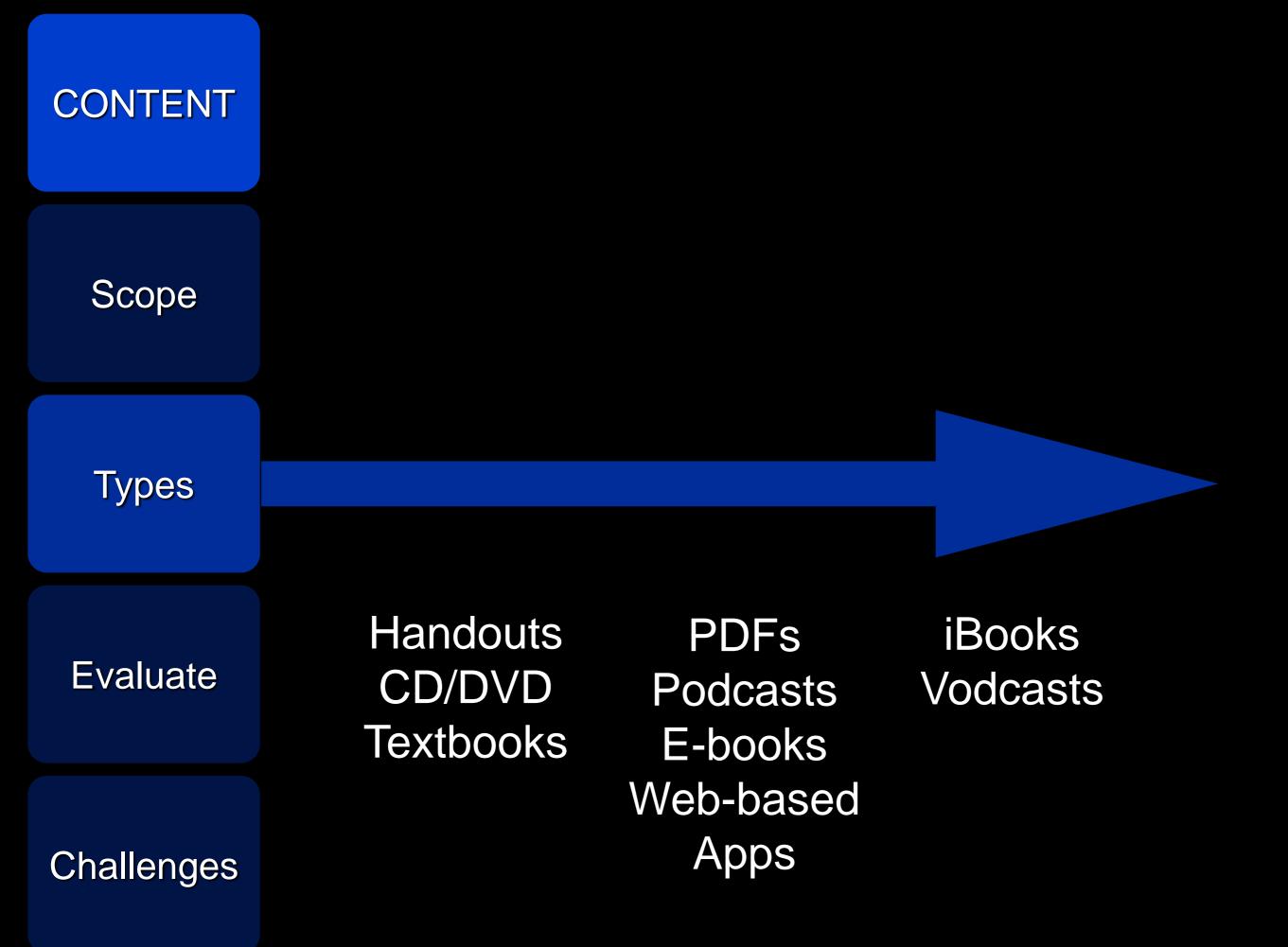
Scope

Types

Evaluate

Challenges

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



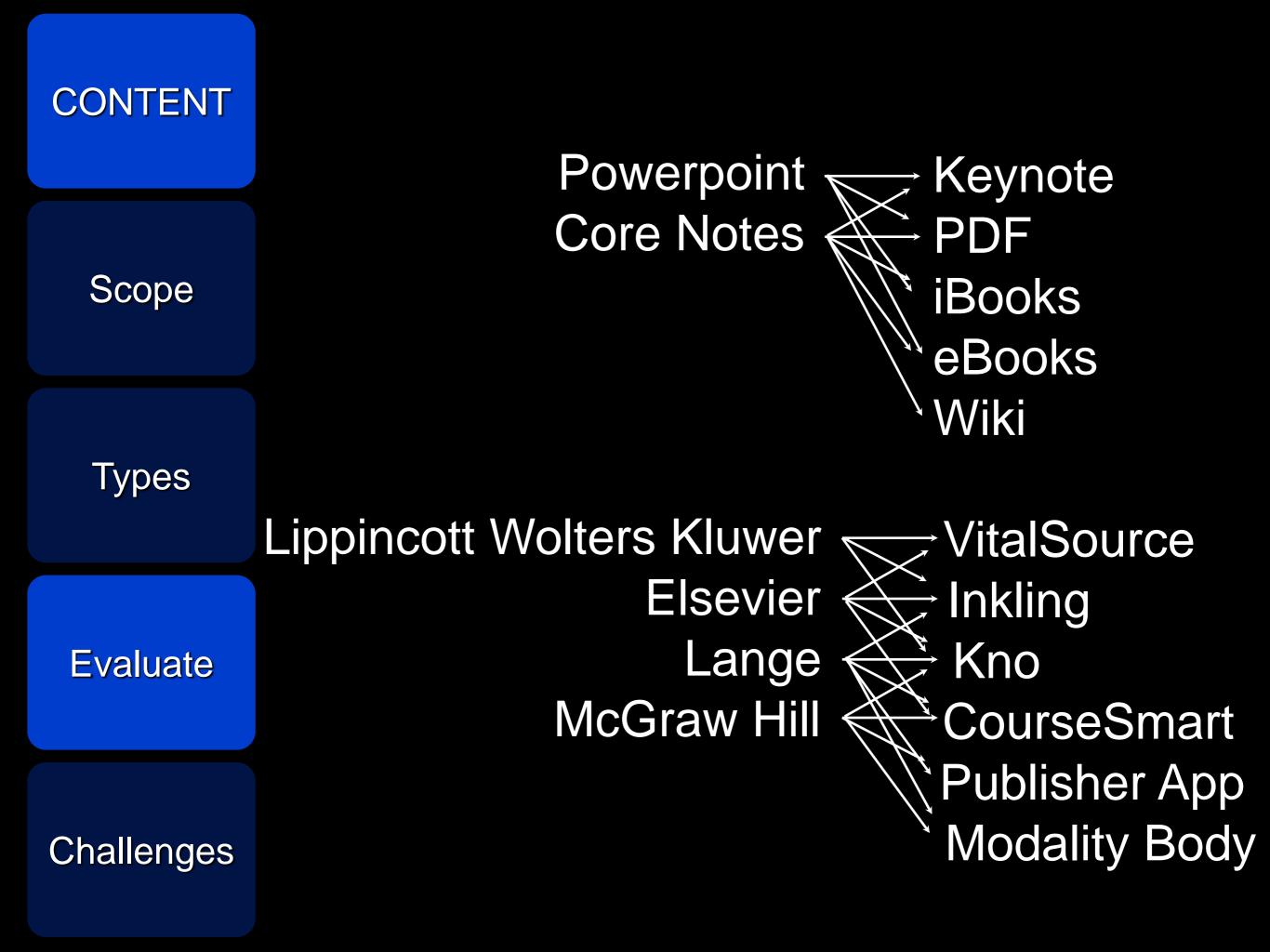
Scope

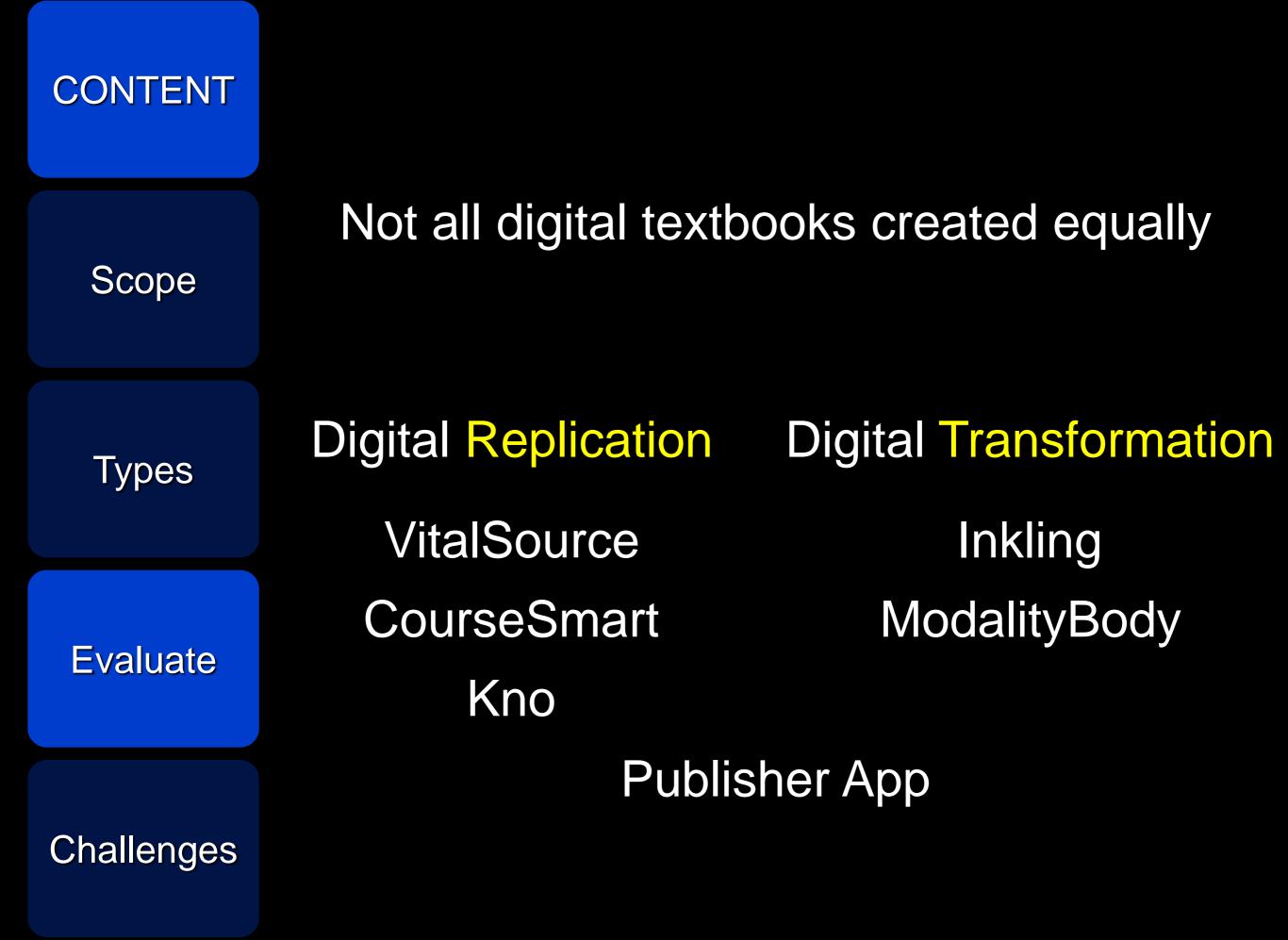
Types

Evaluate

Challenges

- Critically evaluate current content
- Content/vendor mapping





#### Scope

Types

#### **Evaluate**

#### Challenges

#### 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.

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

heable to charged ions.

e lipid bilayer is composed of phospholipids, glycolipids, and most cells, phospholipids constitute the highest percentage.

phipathic molecules, consisting of one nolar (hydronhilic) head

drophobic) fatty acyl tails, one of whic not identical; instead the distributi nmetrical.

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Show Note

1

each molecule faces the membrane surface, whereas the tails iterior of the membrane, facing each other.

#### Scope

#### Types

#### **Evaluate**

#### Challenges

#### ATST

#### eTextbooks

Bates' Guide to Physical Examination and History... Page 202 of 979

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#### HEALTH PROMOTION AND COUNSELING

Vision and hearing, critical senses for experiencing the world around us, are two areas of special importance for health promotion and counseling. Oral health, often overlooked, also merits clinical attention.

in Vision Disorders of vision shift mith age. Healthy young Cha adu generally have refractive errors. Up to 25% of ad 65 years have refractive errors; however, cataracts, macu and glaucoma become more prevalent.17 These disorder of the social and physical environment and contribute we detection of visual defects, test visual activy eld card (p. 211). Examine the lens and fundi mets); mottling of the macula; variations in the etinal hemorrhage or exudate (macular degeneri d color of the optic cup (glaucoma). After diagno tments-corrective lenses, cataract surgery, photoc dal neovascularization in macular degeneration, and top for glaucoma.

k factor surveillance for primary open-angle glaucoma (POAG) is esp nportant; however, in 2005 the U.S. Preventive Services Task Force insufficient evidence for general screening because of the complexitie nosis and treatment.18 Glaucoma is the leading cause of blindness i Americans and the second leading cause of blindness overall. Appro 2.5 million Americans are affected, and more than half are unaware of the disease. In POAG there is gradual loss of vision as a result of the

Vision and hearing, critical senses for experiencing the world around us, are two areas of special importance for health promotion and counseling. Oral health, often overlooked, also merits clinical attention.

Changes in	Highlight	Annotate	Share	ealthy young
adults genera		inter house		toits older than
and glaucoma	become more		arders r	educe awareness
		al defects, test vi Examine the lens		h a Snellen chart louding of the

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Goto

#### Scope

#### Types

#### Evaluate

#### Challenges

10.5: M Phase: Chromosome Segregation and the Division of Cyt... Mitosis is conventionally divided into five stages—prophase, prometaphase, ...

#### p. 195 During prophase, the mitotic

=

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When the chromosome condense at which individual condensed ch

**prophase** The phase of cell division that begins when the condensed chromosomes become visible and ends when the nuclear envelope breaks down. The assembly of the spindle takes place during prophase.

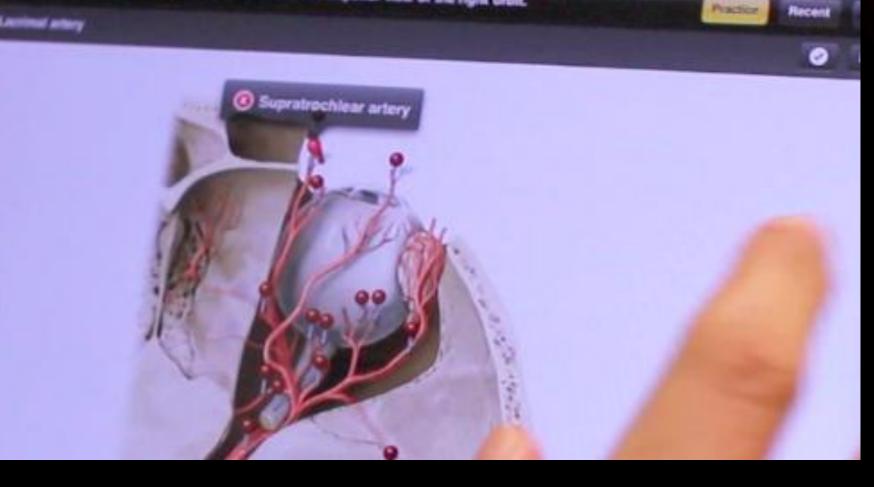
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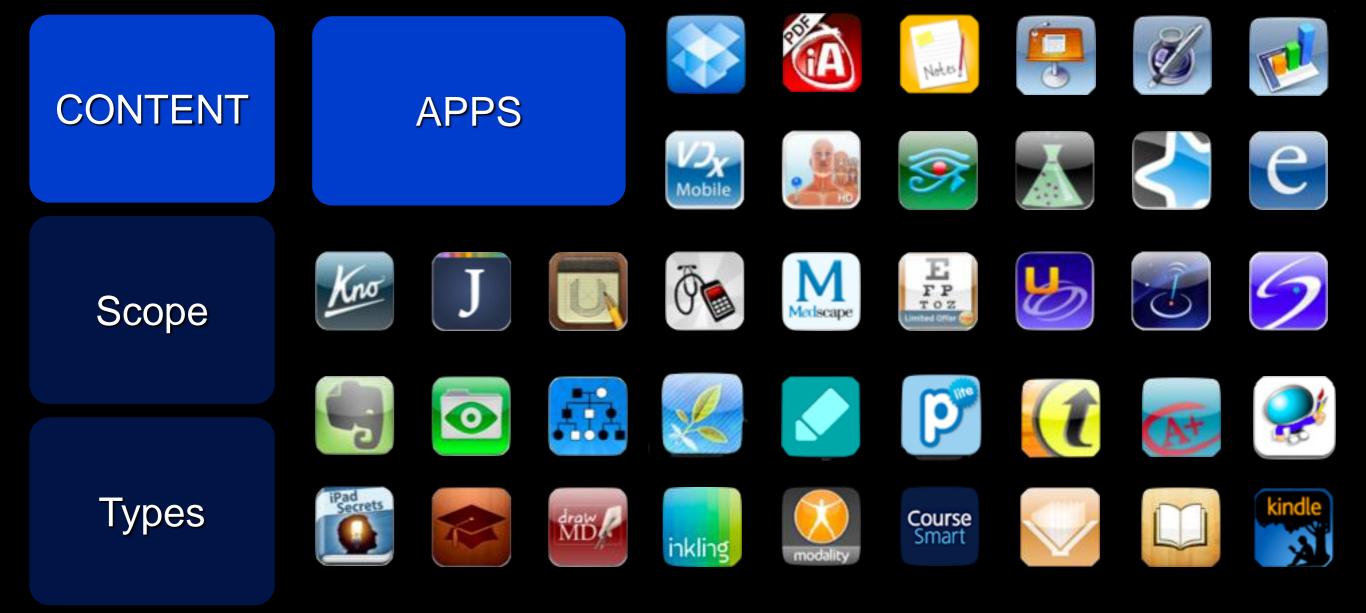
light microscope, the first stage of mitosis, **prophase**, has begun. The condensation process continues throughout prophase; consequently, chromosomes that start prophase as minute threads appear quite bulky before its conclusion. Ribosomal RNA synthesis ceases when the portion of the chromosome bearing the rRNA genes is condensed.

E-43 PM

Fig. 23.8 Arteries of the orbit. Superior view of the right orbit

The spindle and centrioles





#### Evaluate

#### Challenges

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

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

Scope

Types

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Challenges

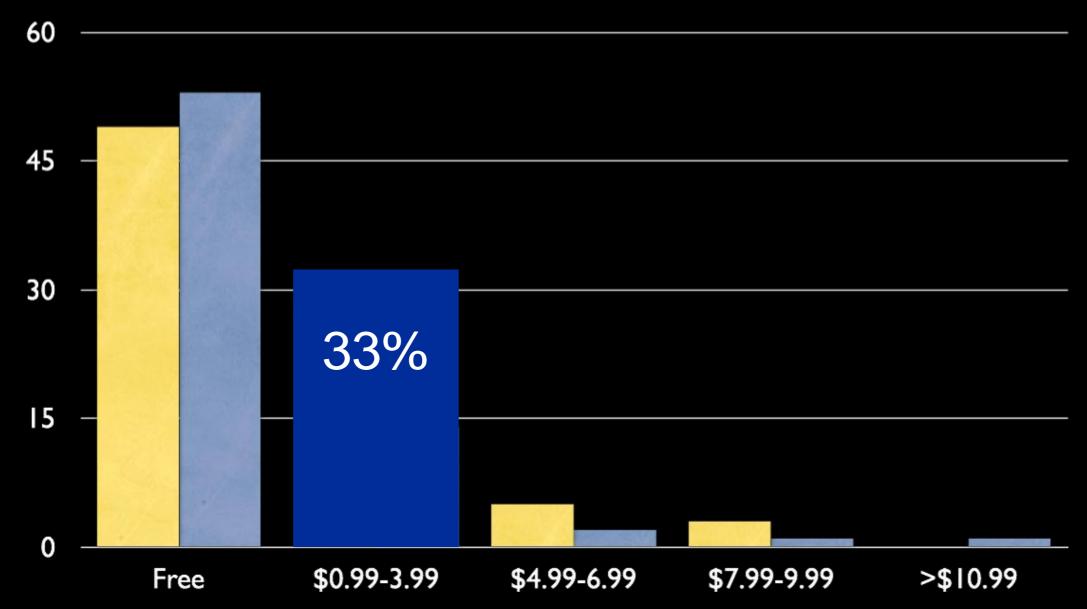
### Apps

- 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



Scope

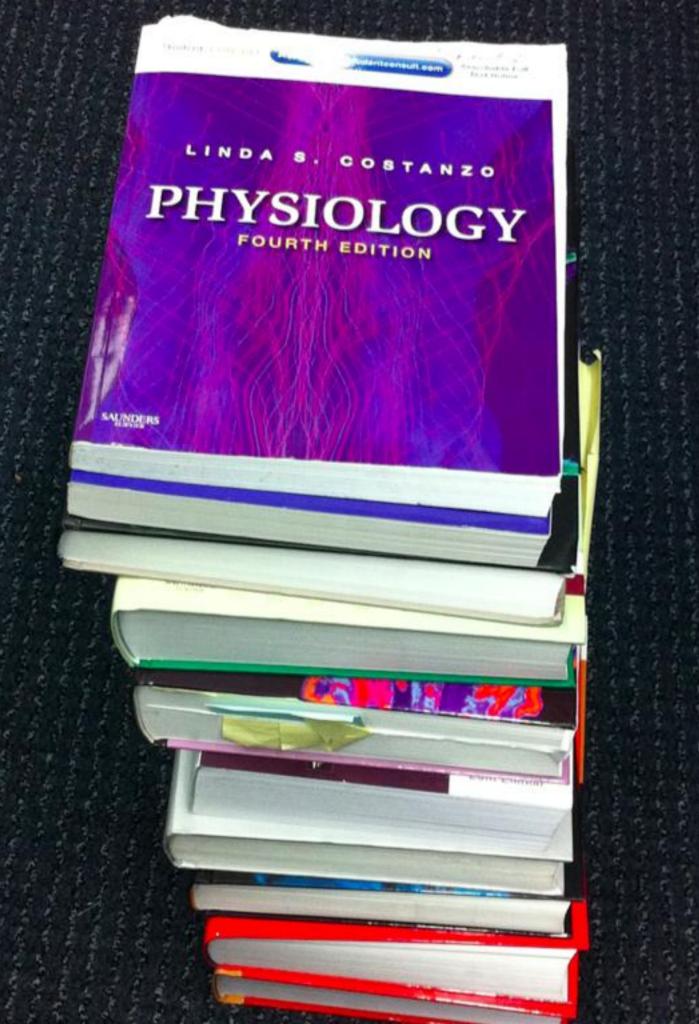
Types

Evaluate

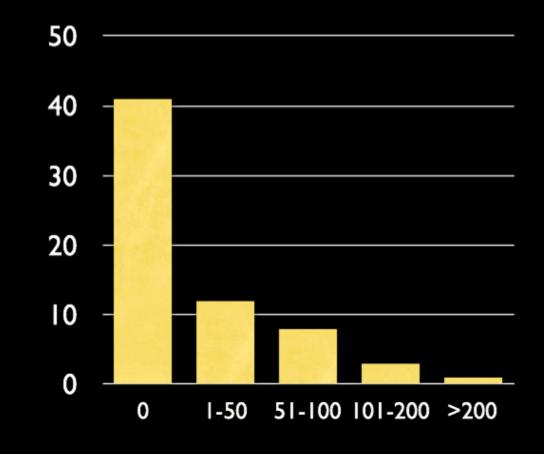
#### Challenges

## Funding

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



# **\$217 last year \$32 this year**



Scope

Types

Evaluate

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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