E-TEXTBOOKS: WHAT JOB ARE WE DOING FOR THE CUSTOMER?

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Why did people use PDAs to read books?

Devices On Which Consumers Worldwide Prefer to Read eBooks 2006 (% of respondents)

- PDA: 79%
- Laptop: 8%
- Desktop PC: 7%
- Dedicated Reading Device: 4%
- Cell Phone: 1%
- Other: 1%

Source: February 2006 survey conducted by the International Digital Publishing Forum of 6,000 consumers of eBooks. 716 participated in this survey.
Technology and education have a tumultuous, fickle relationship

PLATO V System, 1981
- Online lessons
- Forums
- Online testing
- Multi-player games
- Touchscreen

What percentage of the textbook market will be digital?

Source: xplana March, 2011 “US Textbooks reaching the tipping point in US higher education: a revised 5-year forecast
But close to 100% of students and professors already “hire” the internet today to do a range of jobs

**Students’ jobs to be done**

- Get a friend’s notes from a missed class
- Review a summary of course material
- Understand leading-edge research on a topic
- Do practice exercises to master material
- Look up factual material

**Professors’ jobs to be done**

- Find a timely example for class discussion
- Keep the students awake and engaged
The more pressing questions are...

• What combination of digital resources will help students to learn, help faculty to teach – and how does that vary by setting?
  
  • Text, video, audio, interactive exercises, social media, online quizzes with diagnostics, etc

• Is there value in packaging some or all of these elements into one integrated, coherent package – an e-textbook?
  
  • Which elements create the most value?
  • How can publishers combine elements to create value?
A starting point:
In-depth ethnography of multiple devices in the classroom

• **Multiple devices in one class facilitates comparison**
  • How does a student’s experience vary depending upon what device and application s/he used?
  • How does observation of others’ experience with different devices influence the students’ perspective?

• **Real-time data capture**
  • How do students use their devices?
  • What experiments, if any, do they run on their own?
  • How does student attitude and behavior change during semester of device use?
Research Setting

• 1-semester 12-week undergraduate capstone course in Management Strategy at Sawyer Business School
• About 25 full-time students per section
• Instructor: Mitchell Weisberg
• Experiment run in Fall 2010, Winter 2011
Experimental design

Pre-class survey administered

Students randomly assigned a device (in addition to print version of text)
1. Kindle DX
2. Sony Reader Touch Edition
3. enTourage eDGe
4. iPad with CourseSmart app
5. PC with CourseSmart in browser
6. Multiple devices (or none if desired)

Students keep weekly individual journals

Students bring devices to class and share experiences and perspectives in class discussions

Students given option to try a different device

Post-class survey administered
Devices used

- Kindle DX .azw version of text downloaded from publisher
- Sony Reader Touch Edition .epub version of text downloaded from publisher
- enTourage eDGe .epub version of text downloaded from publisher or CourseSmart in browser
- iPad with CourseSmart app
  - Required internet connection
- PC with CourseSmart in browser
  - Required internet connection

- All devices allowed for note-taking, highlighting, and bookmarks
- Sony Reader & eDGe have a stylus and touchscreen, iPad uses virtual keyboard
- Limitation: The digital version of the textbook was a replica of the print version with no enhancements such as links to video, annotations, definitions, exercises, or simulations
Student experience at the beginning of the semester

Students had limited prior experience with eReaders or ebooks

- Have you ever used or tried any eReaders or ebook apps?
  - Yes, 9%
  - No, 91%

- Do you own an eReader device?
  - Yes, 9%
  - No, 91%

Few students had tablets, but everyone had a PC/laptop

- Do you own an iPad or other tablet?
  - Yes, 9%
  - No, 91%

- Do you own a PC? If so, what type?
  - Laptop, 91%
  - Netbook, 7%
  - Desktop, 2%
A high percentage of students used the devices and continued to use them throughout the semester.

Percent of students who read the chapter using the digital text

Week
Students with eInk devices were slightly more likely to read the textbook using their device

Percent who read or skimmed text on device vs. paper (excluding first week)
At the end of the study the majority of students would use digital texts as a back-up

If you could get your “textbooks” on your eReader - would you:
- use it as your primary way to get content for the course
- refer to it when needed (secondary)
- wouldn’t use it

If you could get your “textbooks” on your laptop/netbook - would you:
- use it as your primary way to get content for the course
- refer to it when needed (secondary)
- wouldn’t use it

If you could get your “textbooks” on your tablet or iPad device - would you:
- use it as your primary way to get content for the course
- refer to it when needed (secondary)
- wouldn’t use it
Overall students became less interested in eTextbooks, however the shift in attitude varied by device used.

If you had your choice, would you use an eTextbook for your college classes? (% yes)
Basic results

• **Frustration with technical issues**
  - Needed Internet connection to use CourseSmart
  - eInk page turns too slow
  - Page layout was not optimal for reading devices

• **Valued digital versions of print capabilities**
  - Note-taking, highlighting, bookmarking
  - Search viewed as better in e-text

• **“Study on the go” an important job to be done**
  - “I traveled to Europe and all those hours spent on a plane helped me catch up on my readings for class.”

• **Students loved the iPad, but not for its ereading capability**
  - Spent a lot of time on other applications – web browsing, social media
  - “I love my iPad, it is still a super cool toy to me”
Enhancements requested were surprisingly mundane

- **Enhancements requested**
  - Color, especially for diagrams and illustrations
  - Integration with Blackboard

- **Not**
  - Note sharing
  - Annotated hyperlinks
  - Video
  - Interactive exercises
  - Links to applications – e.g. excel to analyze data
  - Simulations

- **Not yet expecting the web on a device… but that’s where we’re headed**
  - Current “replica of print” e-textbooks are a small first step and will only be adopted to save cost
The instructor’s perspective

• **Observations of student behavior**
  • Students taking notes on device
  • Positive feedback from graduated students
  • Higher level of engagement

• **Benefits**
  • Students tied course content to real world
  • Understood industry issues first hand
  • Engaged with publishers and device makers
  • Publishers and device makers gained insight from students’ strategy development

• **Students not ready to make the transition to full digital textbook readers**
  • “These will be used by the next generation of college students, now in high school.”
Do current eTextbooks “Do the Job” for the instructor

- **Preparation**
  - Loading content onto devices or media
  - Rich media becoming available from publishers

- **Classroom**
  - Different pages numbers for different devices or font sizes
  - Engages students

- **Assignments**
  - Lack of link to assignments
  - Sharing and team work

- **Course Management**
  - Managing devices
  - Measuring learning

- **Benefits**
  - Engaged with market: publishers and device makers
  - Dynamic content
Questions?
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