College Affordability and Free Textbooks: Using Open Source and Instructor-Created Materials to Teach the Legal Environment of Business

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Overview

Background
- College Affordability
- Affordable Learning Georgia
- Characteristics and Learning Styles of Today’s Students

Creating the Digital Book
- Technical Issues and Solutions

Comparing Student Performance: Traditional v Digital Textbook

Future Plans
College Affordability

- 70% of students awarded bachelor’s degrees graduate with student debt
  - $35,051 -- Average debt of 2015 graduates
  - $1.2 trillion – Total outstanding student loan debt

- Tuition and fees at 4-year public institutions 40% higher than in 2005-6 (College Board)

- Students at public 4-year schools will spend average of $1298 for textbooks and supplies this year

- State funding for higher education (Pew)
  - 2001 – Nearly $9,000 per student
  - 2014 – Slightly more than $6,000 per student
Making College More Affordable

- State Attempts to Control Tuition
  - Georgia and Ohio – Freeze tuition at 2 and 4-year schools
  - Minnesota – Freeze tuition at 2-year schools
  - Wisconsin – Freeze tuition at 26 2 and 4-year schools and cut funding for higher education by $250 million
  - Washington – Reduce undergraduate tuition at 2 and 4-year colleges and universities
Federal attempts
- 2008 Higher Ed Opportunity Act – increase price transparency
- Proposed Affordable College Textbook Act
  - Would expand use of Open Educational Resources (OER)
  - Would award grants and incentives to support pilot programs
  - Textbooks created under Act would be freely accessible to public
- Proposed Department of Education Rule (2015)
  - Would require all copyrightable intellectual property created with DoE discretionary competitive grant funds to have an open license
  - No final rule has been issued as of June 30, 2016
State Efforts to Make Textbooks Affordable

- Expand use of open source textbooks, e.g., Connecticut
- Create incentive funds to reward faculty who adopt OER, e.g., California
- Require faculty in state’s e-Versity (online degree program) to use OER textbooks, e.g., Arkansas
- Award grants to develop OER materials, e.g., Georgia
Affordable Learning Georgia (ALG)

- University System of Georgia launches ALG initiative in 2013 to adopt, adapt, create and use OERs
  - Partnered with MERLOT and OpenStax College

- Goals
  - Reduce textbook costs
  - Improve retention, progression and graduation

- How?
  - Textbook Transformation Grants
Who are the Millennials?

- Millennials, Generation Y and/or Digital Natives
  - Born between 1982 and 2004 (Howe and Strauss) or
  - Anyone born after 1980 (Pew)

- Racially and ethnically diverse, most are single
Characteristics of Millennial Students

- Technologically sophisticated
  - Always connected to email, text, and social media
  - Expect communication to be instantaneous 24/7
  - Comfortable in virtual educational communities

- View multi-tasking as way of life

- Ambitious and overly confident, with unrealistically high expectations of what they know and can do
  - Exposure to information often broad and shallow, resulting in poorly prepared students and weaker work ethic
  - See college as stepping stone to career; less interest in academic achievement for personal growth and development
Millennial Students Prefer

- Using technology for learning
- Learning through videos and visuals, not reading
  - Able to express knowledge in nonlinear representations
- Personalized and experiential learning
- Working collaboratively in teams over individual effort
- Immediate feedback
- Clearly communicated rules and goals, structure and guidance in knowing what is expected of them
Implications for Faculty

- Millennials may have unrealistic expectations about what is necessary to be successful in college.

- Because they have been sheltered, supervised and guided by parents and K-12 education, millennials may lack skills to:
  - Manage time and projects effectively
  - Establish their own goals and develop plans to achieve them
  - Deal effectively with team dynamics, personal confrontations
  - Select and evaluate content
Strategies for Teaching Millennials

- Use film clips, videos and multimedia to
  - Teach content and generate discussion of how concepts apply in real-world context

- Adopt active learning strategies, e.g.,
  - In-class group exercises and team projects
  - Assignments that require students to investigate topics to master the content

- Personalize learning
  - Allow students to design projects and assignments based on their needs and preferences
Designing for Effective Learning

Content and exercises need to be grounded in pedagogy of effective learning, e.g., Nevid’s 4 E’s

- **Encode** information – chunk what’s important
- **Elaborate** meaning – encourage deeper thinking and analysis
- **Engage** students
- **Evaluate** performance
Creating the Digital Book

- Organized into Modules to allow students to explore content like they browse the internet

- Each module has
  - Opening Infographic
  - Overview and Questions to Consider
  - Content and Learning Objectives
    - Organized by sub-topic with links to readings, videos and websites, with embedded exercises
    - Enrichment content for deeper learning and/or entertainment

- Tabs at top: Home, Modules, Resources (for students and instructors); and Credits; News ticker
Digital Textbook Exercises

- Exercises applicable to any module
  - Module Assessment, requiring Yelp-type reviews
  - IRAC Scenarios
  - Assignments to create digital
    - Timelines (Timeline JS3)
    - Mind maps (Coggle)
    - Infographics (Piktochart or Venngage)
    - Study aids and Assessments (Quizlet)

- Embedded self-assessment activities for students to gauge mastery of content and to review for tests
Technical Issues and Solutions

- Create template that can be used on most learning management systems (LMS) – used HTML

- Make e-book mobile compatible outside LMS
  - Utilize responsive design that adjusts text size and positioning, image size, and content based on screen size; allows book to be accessed on laptop, tablet or smartphone

- Include dynamic content (news ticker and activities)
  - Use JavaScript, with elements hosted on remote server and iFrame HTML tag to embed into e-book when uploaded to LMS

- Verify that links remain active
  - Use Adobe Dreamweaver
Avoiding Copyright Issues

- Create content in-house

- Link to business law content in public domain and OER materials
  - Government websites
  - OpenStax textbooks (Creative Commons)
  - OER Commons textbooks

- Link to copyrighted websites, audio clips and videos hosted by YouTube, TedTalks, etc.
Digital book piloted with 172 students in Fall 2015

- Compared performance to 115 students in same semester using traditional textbook
  - Students using e-book had 2.97 course grade average compared to 2.66 for those using regular textbook
  - DFW rate for e-book users was 7.7% compared to 14% for textbook users

- Also compared performance to 115 students using traditional textbook in Fall 2014
  - Textbook users had 2.4 course GPA and DFW rate of 19.5%
Positive student responses to survey

- Structure of e-book was user-friendly and posted materials were easy to find: 63.5%
- Liked being able to select own content from array of available materials: 60%
- Preferred videos over readings and websites, finding them to be informative and helpful in understanding content: 59.1%
- Videos were engaging (36.5%) leading students to watch several for each module (41.6%)
- Only 12.4% said they prefer courses with a textbook and would have liked one in their LEB class
- 70% preferred accessing the e-book on a laptop computer, though 5.8% preferred using a smartphone and 8.6% a tablet or iPad
Neutral or negative responses to survey items

35.8% of students wanted clearer recommendations in selecting which content to view, read or explore.

Only 33 to 36% consistently looked at the overview, objectives and questions to consider before looking at content or used them as a study guide in preparing for tests.

10% didn’t look at the e-book, relying on slides posted on LMS, lecture and class discussion.
Selected Student Comments

“Our particular generation isn’t too interested in reading … The videos seem like a much more progressive way to capture our attention and help us grasp the concepts.”

“The e-book was awesome. I understand information better when there are visuals and activities…”

“I liked the e-book because it helped me save money at the beginning of the semester and is always accessible. I think that being able to explore videos was more effective because I would only watch the videos in the subjects I was weak on.”

“The eBook is one of the greatest resources I've had the privilege of utilizing throughout my scholastic career.”

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Future Plans

- Create more content modules
- Enhance content of modules
  - Create more instructor content
  - Provide students with more guidance in selecting content
  - Add more videos and other OER multimedia content
- Add more resources for instructors
- Develop and embed more self-assessment exercises for students