Book Title
Over the course of the 2012 Spring semester at the University of Missouri, Alex Schupp and Adam Spencer, senior convergence students working on their capstone project, worked with Kno.com and their digital textbooks. They conducted interviews, tested the app and produced videos for the Kno.com company.
Kno.com is a digital textbook company based out of Santa Clara, California. According to their website, “Kno is a killer education software company on a mission to shake up higher education by making learning engaging, efficient, and social for students.” Kno is on the forefront of the digital textbook revolution, determined to snag a large share of an emerging market.

Digital textbooks, whether for the iPad or for a laptop computer, are an engaging and exciting way to interact with school material. In today’s digital world, Kno provides a change from the paper textbooks of the past. With over 150,000 titles to choose from, students at institutions for higher learning have a great opportunity to jump into the digital textbook world.

Over the semester, we worked with Kno to gather feedback from people on the University of Missouri’s campus who have had experience with a Kno.com digital textbook. We also were each given access to a textbook of our choice for the semester in order to get a firsthand experience of what the Kno app was like.
Since digital textbooks are a relatively new medium, some testing and user feedback is a must. Our job for Kno.com was to gather as much relevant information about the digital text experience as possible from as many different sources as possible. We were given access to one of our required textbooks for free, in order to get a first-hand experience of using Kno’s digital texts.

We also conducted interviews with J2100 students at the University of Missouri who were also given free access to one of their texts. By compiling as much feedback as we could from them, we were able to form a much clearer and more comprehensive list of Kno’s successes, as well as their shortcomings.

During the course of our semester of work, we also had the opportunity to interview a professor whose textbook was converted to a digital text. It was useful to talk to her as an older digital text user and someone who didn’t have a lot of experience with an iPad. She also provided valuable information as to what a professor is looking for in a digital text.

Using components of all three of these opportunities, we were able to form a clear picture of what Kno is doing well and what needs improvement. We compiled all our data into a form that will be useful to Kno and also made a video based on interviews we conducted and general feedback we received.
State of the Industry

The digital textbook industry will continue to become more popular as more and more people have access to laptop computers and tablets. However, one of the biggest challenges facing the industry is the reluctance of most people, especially people who haven’t grown up in the digital age, to switch from paper books to digital books. A large scale change from paper to digital textbooks is likely to take some time, especially with the older generation of users. With older teachers and professors in charge of assigning texts to students, it’s possible that some will resist a change to digital texts simply because they don’t understand the new technology.

Still, there are several encouraging signs for the digital textbook industry, including ease of use, increased presence of technology in classrooms and government support. These factors will keep the industry growing in the foreseeable future. For students who don’t want to carry around heavy textbooks all day, but still want to be able to take notes like they would with a regular text, the Florida State University PALM Center says, “digital textbooks are compact and light, making them easy to transport and store; many have search, highlight, and note-taking features convenient for studying and quick reference; and digital textbooks are immediately available anytime, anywhere” (4).

Classrooms today have more and more access to technology like computers and tablets. With the increased access to the technology, interactive learning will become more important to the learning process. The ability to embed videos, generate quizzes and compile notes will lead to digital textbooks taking on a prominent role in the education process. Instead of having students read a text, watch a movie and take a quiz, teachers can use digital textbooks to combine all three of those functions in one place. “The use of digital textbooks can help teachers avoid wasted instruction time due to the distribution and collection of textbooks, students with forgotten or lost textbooks and incomplete homework. The convenience of the online format means that the student textbook is always at hand” (5).

Also, governments have started giving support to digital texts, allowing them to receive educational funding. According to a study by the Florida State University PALM Center, “State laws, many of which have been rewritten to include digital content as an acceptable use of state textbook funding, will serve as catalysts that spur the transition to digital textbooks” (4).

Source: PALM Center Study
About the App

The Kno.com application tries to make the user’s experience as similar to using a regular paper textbook as possible. For example, if students like to use sticky notes to take notes while reading, Kno has a sticky notes feature. If students like to make notes in the margins of a book, they can do that on their iPads with Kno as well. And, if a student likes to highlight important information in a textbook, he or she can do the same thing with Kno.com’s app.

But, the application also has many features that distinguish it from a regular paper textbook. For example, there is a “My Journal” feature on the Kno app that allows users to see every note, sticky note, highlight and any other mark they made in the book in one convenient place. Also, for textbooks that have a glossary of terms, the Kno app will create vocabulary flashcards for the student to review, saving time and paper.

With these intuitive features, and with more coming in the future, digital textbooks are a clear upgrade over print texts for media-savvy students. While the limitations for print are known and unchangeable, the limitations of digital texts can be overcome with new applications and new technology. The possibilities of the Internet are endless and can provide students with new and exciting ways to learn now and into the future.
Computer Version vs. iPad Version

The computer version of Kno’s app is slightly different from the iPad version. Since laptops do not have touch screen capabilities, the computer app doesn’t give users the ability to use the pen function to write notes on specific pages. This is a minor difference that can be overcome for the most part by the sticky note and highlighting functions.

The biggest difference between the two apps is the “My Journal” function. The laptop version doesn’t have the “My Journal” function, making it harder for users to find all the notes they’ve made in one convenient location.

For Kno to start converting more and more students to digital textbooks, more consistency between the two versions of the app will be necessary. Users will require an easier way to sync textbook notes from one version to the other before Kno.com is really as convenient as a paper textbook.

As of now, though, the apps are too different to be completely useful to the average student. Instead of being able to sync seamlessly between laptop and iPad, students will have to mostly stick with one version of the app or the other.

However, most of the functions are the same on both the iPad and the laptop. Users can still add post-it notes and bookmarks to certain pages and can still highlight text. Students can still study with flashcards if the book they are using has a glossary at the end. And, they can still use the interactive table of contents function. So, while there are some difficulties in sharing between the two apps, which Kno is working to fix, the apps are, overall, incredibly similar and provide the user with many of the same functions.
Feedback from Students

Students from the J2100 class who we interviewed all enjoyed the convenience of having all their texts in one place. They liked the fact that one iPad weighs significantly less than a textbook and is much easier to carry around. Also, being media-savvy journalism students, they were able to learn the functions of the app a lot easier than an older client probably would have been able to learn, so they unanimously complimented the app’s ease of use.

The students also thoroughly liked the app’s highlighting function and the My Journal function. They said by being able to highlight text and add notes in the margin, the digital textbooks were very similar to paper texts. But, one student added, the My Journal function is something that a regular textbook can’t do. Paper texts can’t intuitively compile every note a student has made into one convenient place.

Most of the negative feedback from the J2100 students was about making the existing functions a little bit easier to use. Students said they would like the highlighting function to be a little bit easier to use. Right now, some have problems changing existing highlights. Instead of being able to easily extend or shorten existing highlights, they often would have to delete the entire highlight and try again.

Another concern was the minor formatting problems students experienced from time to time. For example, one student said that when she would click on an embedded picture in her text, the app would sometimes leave out letters and even entire words while reformatting to a bigger size. She said it didn’t affect her understanding of the examples, but that it’s a problem that needs to be addressed in the future.
SWOT Analysis

Strengths

We analyzed the strengths, weaknesses, opportunities and threats that will affect Kno’s success in the digital textbook niche.

One major strength is Kno’s vast selection of textbook titles. There are over 150,000 textbooks available for students. These textbooks are accessible on both iPad and the web.

Kno’s interactivity is a huge strength of their digital textbooks. Kno’s interface provides users with the ability to bookmark, highlight and add notes, all while sorting and organizing these notes in a program dashboard. The dictionary and integrated search functions on the app are also a positive asset to the product. Kno also provides digital study materials. Flashcards are an added bonus to the product. Kno’s iPad app also has a feature that allows users to chat with their classmates. Overall, the features are very intuitive.

The price of digital textbooks is another strength. They are relatively inexpensive in comparison to a traditional textbook.

Convenience is a major strength of digital textbooks. Since they can be stored on an iPad, users now only have to carry their iPad to class instead of several bulky textbooks. Users without an iPad can also login online to view their digital textbook.

Kno is a company that is constantly progressing. This is a strength of the company and its products - any problems will be tweaked, and new textbook titles are being added regularly.

The vast selection of textbook titles, interactivity of the software, excellent interface and functionality, overall price and convenience, and constant improvement of the software are all significant strengths of Kno.com’s digital textbook products.

STRENGTHS

- Vast Selection
- Interactivity
- Functionality
- Price
- Convenience
- Constant Progression
SWOT Analysis

Weaknesses

Though Kno’s digital textbook products have a variety of strengths which separate them from competitors, Kno.com also has a few weaknesses.

A major weakness of Kno.com is name recognition. When people think of digital textbook, Apple is the company that comes to mind, not Kno. Apple’s presence in the digital book industry is large. Furthermore, Kno.com limits its selection to educational books, while apple provides a variety of types of literature. In addition, Kno.com only provides digital textbooks for higher education, and we feel the company is missing part of the market. By allowing Apple to dominate the K-12 digital textbook market, Kno is losing name recognition in the digital textbook market.

Though Kno.com’s constant improvement of their products is a positive thing, the fact that they need improvement is a weakness. Kno.com will never be finished adding digital text-

Though the price of Kno.com’s digital textbooks are a plus, there are other costs to consider. Students would need to purchase an iPad in order to most effectively use Kno’s products.

While a traditional textbook does not run out of batteries or need to be charge, digital textbooks do. This is a weakness of digital textbook products.

Name recognition, the need for improvement, battery life and external costs are weaknesses of Kno.com’s digital textbook products.

WEAKNESSES

- Name recognition
- Need for improvement
- Needs battery
- External cost of technology
- Formatting text size
Kno.com is a niche company that is in a very booming market. The digital and tech boom that we are currently experiencing is a major opportunity for Kno.com. As tablets and laptop computers become increasingly popular, digital study materials like digital textbooks are becoming more and more useful.

Something that is a constant in the higher education textbook industry is the constant changeover of textbooks. Though the same classes are taught year after year, textbooks are frequently updated or changed, causing new students to purchase new books semesterly. This frequent changeover of textbooks is an excellent opportunity for Kno.com. Kno has the opportunity to convert paper textbook users into digital textbook users semester after semester.

Kno.com has a great opportunity considering the size of the market they are in. According to the US Census Bureau, there are approximately 14.4 million college students in the United States. College students typically purchase textbooks every semester, so Kno has 14.4 million potential customers each semester.

Kno.com’s online integration features are a huge opportunity for them as well. We are entering an era of a new type of media consumer, and Kno.com allows its users to use its products wherever they have access to their tablet or the internet.

A nationwide digital boom, constant changeover in the market, the sheer amount of college students and online integration are all areas of opportunity for Kno.com’s digital textbook products.
Kno is also facing some large threats as they try to gain hold of this market place. A major threat to Kno’s success in the market is Apple. Apple is a dominant force in the tech and e-learning industries. Apple is a more well-known company that people are already very comfortable with using, and it will be difficult competing with such an influential company.

Another threat is resistance to change. Though Kno.com’s digital textbook products are very cost-effective and beneficial to college students, not everyone is excited about the digital changeover. Some students simply prefer paper textbooks over digital textbooks. In addition, for Kno’s online features to truly be effective, the professors have to be on-board. Teachers have to support and embrace their move to digital textbooks in order to take advantage of their benefits.

Apple is not the only competitor of Kno.com. In addition to the Amazon Kindle and other e-reader products, the print market is another threat. The paper textbook industry is a big one, and several textbook companies already offer digital study solutions.

Online file sharing has been a problem for the film and music industries, and like any digital media, digital textbooks can also be illegally pirated. It can be expected that as digital textbooks become more common, the pirating of these materials will also increase.

Apple’s dominance in the industry, consumers’ resistance to change, publishing companies, and online file sharing are all potential threats to Kno.com’s success.

### Threats

- Apple iBooks/Kindle Products
- Publishing companies
- Resistance to change
- Illegal pirating/file sharing
SECTION 11

Interview With Dr. Pearsall

Dr. Deborah Pearsall is an anthropology professor at the University of Missouri who specializes in anthropology. Pearsall teaches an ethnobiology course at Mizzou that utilizes a textbook that she co-authored and edited. Our team met with Pearsall to have a discussion about the use of her textbook in a digital format. This was her first time using Kno.com’s digital textbook products, and we spent a lot of time with Pearsall listening to her thoughts, opinions, concerns and suggestions about the app.

During our discussion with Pearsall, she explained that she assigns textbook readings to students to garner further in-depth thought and analysis on a subject. Highlighting important sections, she said, is not important. Rather, it’s more important to write notes in the margins.

“It doesn’t do you any good just to be coloring your page with a highlighter. What you need to do is engage your mind while you’re reading,” Pearsall said.

Pearsall notes she wants students to not only think about what information in the textbook is significant, but also why it’s important. This critical thinking, she explained, is very important to the learning process and complete comprehension of a subject.

“I really like to get students to think about what they’re reading so that when they come to class we can have a little more interaction,” she said.

Pearsall explained that she has been using traditional media for most of her life, and that for her and her colleagues, there may be a learning curve when switching to digital media. In fact, that’s exactly what Pearsall encountered the first time she used a digital textbook.

“I’ve only used a truly digital textbook once in class. The students in the seminar could go to the e-textbook and read the chapters, but what I did, of course, was print out the chapters page by page,” said Pearsall.
Interview With Dr. Pearsall

Traditional textbooks allow Pearsall to make notes in the margins and on the pages, but that's not always possible in digital formats. Pearsall noted that her unwillingness to switch to digital textbooks was due to lack of functionality on many digital formats.

“I prefer paper because of the way I make my notes,” Pearsall said. “For scholars to really use these electronic media, they need to be able to give you the capability of making notes on the manuscript and of doing that easily.”

When we showed her our digital copy of the textbook she authored, Pearsall explained that she was unaware the textbook was available through Kno.com. As an author of the digital textbook she tested in our sessions, Pearsall has unique insights to the book’s effectiveness in the digital format. When writing the textbook, Pearsall paid careful attention to the formatting of the text and graphics.

Pearsall was at first wary of the digital textbook we shared with her, but after a short time experimenting with Kno’s iPad app, she had a lot of really great things to say about the product. She also expressed her opinion on changes that may need to be made. Pearsall said she liked the functionality and ability to make notes and bookmarks. One important takeaway from our conversation with Pearsall was that Kno.com’s digital textbooks are static - they are unable to be reformatted. Pearsall suggested that one excellent modification to Kno.com’s digital textbooks would be the option for the reformatting of pages or text depending on the desired text size. This would allow readers to view their textbooks with font of whatever size they desired, while prompting the most effective and efficient use of the iPad screen.

The feedback Pearsall provided our capstone team with was very helpful. As a professor that prefers traditional textbooks, Pearsall has excellent insight into the needs of textbook consumers. Though Pearsall may not be going all-digital anytime soon, she was satisfied with the functionality and features of Kno’s digital textbook products. “As long as it has the capability where you can put your thoughts and your reactions in, then that would be an alternative to the traditional way of simply writing in the margin,” said Pearsall.

INTERACTIVE 1.1 Interview with Dr. Pearsall

Pearsall explains her concerns with the Kno.com digital textbooks and then tries out the interactive digital version of a textbook she helped co-author.
The digital textbook industry is quickly growing, and Kno.com is right at the forefront. As younger generations of students go through school, the importance of technology is becoming increasingly important. Problems in education will continue to be overcome with digital solutions, and Kno.com has a great opportunity in the digital education market.

As the current generation of students becomes the next generation of teachers and professors, the new ways they use technology will spread to the classroom. Digital textbooks make up a small margin of the current textbook market, but as tablets, laptops and other handheld devices become more mainstream, the digital textbook industry can expect to see a boom.

The openness and willingness to change over to digital textbooks from this generation of students means that Kno.com can continue to grow and develop a larger base of users. Though they face stiff competition from Apple, Kindle and other digital textbook devices, as well as from traditional publishing companies, there will be a large niche of users they can target with their vast selection of digital texts.

By continuing to improve their product and fixing minor glitches that we were able to discover through our testing of the texts and our interactions with other students using the texts, Kno.com will have one of the most quality products out on the market at this time. After focusing on quality first, name recognition will eventually follow.

Overall, Kno is in a very good position for the shifting textbook market. By getting in on the ground floor of the digital textbook industry as iPads and other tablets are becoming more popular, Kno stands to gain a large share of students in the emerging market.