The following executive summary details the findings of the eContent pilot conducted at the University of Arizona during the Spring 2014 semester. This eContent pilot was the second sponsored by The Office of the CIO. The executive summary of the pilot conducted in Fall 2013 can be found under the “Fall 2013 Pilot” tab on this website.

The overall goal of the pilots was to determine the feasibility of expanding the use of eContent at the UA in the near future. Campus partners include University Information Technology Services (UITS), the Office of Instruction and Assessment (OIA), UA BookStores, University Libraries, and Student Affairs.

**Top-Level Recommendation**

The eContent working team recommends that the UA does not roll out a large-scale eContent platform at this time. Our findings show that the eContent industry is in continuous flux and is not yet able to deliver a scalable product or adequate support of a significant rollout. As detailed in *The eContent Landscape* (see the “Resources” tab), the market is saturated with applications that offer various combinations of functionalities and cost models. Many publishing companies have also joined the competition by providing proprietary eContent applications.

**Pilot Details**

Findings from the Spring 2014 pilot directly reinforced many from the Fall 2013 pilot and also provided valuable new information. All eContent and application costs for both pilots were paid for by the Office of the CIO, student participants received the course materials and use of the software free of charge.

The Spring pilot differed from the Fall 2013 pilot in two significant ways:

1. Spring pilot instructors used only open educational resources (OER) and library-provided articles on the Courseload application. Conversely, Fall instructors used purchased eTextbooks.
2. Courseload version 3 was used in the Spring compared to Courseload version 2 in the Fall. The upgrade was released just days prior to the start of the Spring semester and users experienced numerous technical issues. Consequently, the pilot was not able to begin until the third week of the semester and the functionality of the application was limited.

As detailed below, the Spring pilot courses spanned 5 subjects and 8 sections. Courses ranged from the 100 level through the 600 level with section enrollment from 1 – 174 students. Total final student enrollment was 275. The courses were a mix of in-person, online, and hybrid.

**Spring 2014 Pilot Courses:**

<table>
<thead>
<tr>
<th>Instructor Name</th>
<th>Subject</th>
<th>Catalog</th>
<th>Section</th>
<th>Course Name</th>
<th>Final Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brigitta Lee</td>
<td>EAS</td>
<td>160A3</td>
<td>1</td>
<td>Chinese Civilization</td>
<td>174</td>
</tr>
<tr>
<td>Ladd Keith</td>
<td>SBE</td>
<td>202</td>
<td>1</td>
<td>Professional Communication &amp; Presentation</td>
<td>30</td>
</tr>
<tr>
<td>Laura Lunsford</td>
<td>PSYV</td>
<td>313</td>
<td>1-4</td>
<td>Community Psychology</td>
<td>7</td>
</tr>
<tr>
<td>Anna O’Leary</td>
<td>MAS</td>
<td>317</td>
<td>1</td>
<td>Latin American Immigration</td>
<td>33</td>
</tr>
<tr>
<td>Iris Patten</td>
<td>GIST</td>
<td>601</td>
<td>Outreach</td>
<td>Intro to Geographic Info System Technology</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>275</strong></td>
</tr>
</tbody>
</table>

Before deciding to participate in the Spring pilot, instructors for both SBE 202 and GIST 601 planned to use for-purchase textbooks. Cheryl Cuillier of the University Libraries coordinated with these instructors.
to choose comparable OER eTextbooks. Both open textbooks were freely available for download, online reading, and sharing. Consequently, there was cost savings of $192 per student in SBE 202 ($5,760 total), and $183 per student in GIST 601 ($5,673 total). This combined total savings of $11,433 was offset slightly by a Courseload fee of $7.50 per student. Therefore, the total cost savings for these two courses combined was $10,975.50.

Students were asked to rank the quality of writing, quality of editing, study aids, author expertise, page design and layout, depth of coverage, and ease of use of the OER eContents used in their pilot course compared to course materials they would usually purchase at the UA BookStores. Students overwhelmingly reported the OER materials to be “about the same.” Faculty were pleased overall with the OER content and a few are currently working with the University Libraries to locate additional OER materials for future classes.

Participation
Just as we observed in the Fall pilot, student engagement with the eContent and Courseload’s interactive features aligned directly with the level of their instructor’s engagement. Unfortunately, overall engagement decreased from Fall to Spring. Survey and interview responses indicate that this decrease was largely due to the technical issues with the Courseload application and the delay in its availability. In addition to the instability of the software, training materials for the new version were not available until after the beginning of the semester. Conversely, we were able to provide training materials to the Fall instructors a month prior to the beginning of classes. Fall instructors also had approximately three weeks prior to the semester to prepare their eContent.

Technical Issues
Forty-seven percent of students in the Spring 2014 pilot reported technical issues with Courseload compared to 19% in Fall 2013. Issues reported varied greatly.

Examples:
- The Courseload software upgrade removed the ability for users to filter whose annotations they wanted to view which resulted in the option of seeing either all classmates’ notes or none at all.
  - This issue greatly affected Dr. Lee’s Chinese Civilization class of 174 students who could not see the text through the numerous notes. Dr. Lee organized her large class into smaller workgroups with the understanding that they could easily choose to view just their team’s notes.
- Many students complained about the imprecise highlighting function. Extra words and characters were often highlighted.
- Courseload’s offline functionality did not work properly which made it impossible for students to access and/or update eContent when they did not have an internet connection.
- Mobility was further limited because Courseload did not work well on tablets.
  - For example, iPad users expect that swiping the screen will “turn the page.” Instead, swiping the screen on Courseload highlighted the screen content and often opened a text box.

Benefit of eContent Features
Students were surveyed about the following eContent features:
- Bookmarking
- Classmates’ annotations
- Highlighting
- Instructor’s annotations
- Personal annotations
• Posing questions directly to the instructor
• Reading offline
• Searching

As shown in the below charts, students ranked highlighting, instructor’s annotations, and searching as most beneficial to their learning experience. Least beneficial were classmates’ notes at 3% and personal notes at 9%. Students in the Fall reported the same top three features.

**Effect on Final Grade**

Only 4% of Spring students believed their grade increased due to using eContent compared to 24% of students in the Fall. 22% of Spring students believed that their grades were negatively affected due to using eContent, compared to only 4% of Fall students.

**Print/eContent Preference**

The following chart illustrates Spring student feedback on whether they would ideally prefer to perform the following tasks with a traditional print book or on an eContent platform:

- Reading
- Taking notes
- Creating a study guide
- Highlighting
- Group work/activities
- Sharing notes with others
- Searching for specific content

As shown below, students ideally prefer traditional print books for reading and taking notes. Some students identified eye strain as one reason for this preference. Students reported preference for ideally completing the remaining tasks on eContent, which infers greater eContent use in the future assuming the industry provides more highly functioning applications.
eContent Purchase Considerations
Both students and faculty identify cost as an important consideration for them when deciding if they would choose eContent instead of a traditional textbook. In particular, there was significant pushback to the concept of Courseload’s 100% sell-through model which requires payment for both the eContent and use of the platform for every student in a course, regardless of whether or not they choose to use them.

The below Spring student survey responses reaffirm the high importance placed on cost. The question posed was, “In your opinion, what factors are most important for the UA to consider when determining the future of eContent use on campus?”

Most Important Consideration

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>27%</td>
</tr>
<tr>
<td>Ability to print</td>
<td>22%</td>
</tr>
<tr>
<td>Portability</td>
<td>19%</td>
</tr>
<tr>
<td>Software features</td>
<td>18%</td>
</tr>
<tr>
<td>Length of access</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
</tbody>
</table>
Recommendations
While the eContent team has found that the eContent industry does not yet have a scalable and reliable product, the continued investment of time and money by numerous companies indicate that the software offerings will improve. Given that the UA’s instructors and students are making the transition to eContent on their own, it is recommended that the University continues to be proactive by researching the needs of campus, determining how eContent can be effectively managed on a campus-wide level, and monitoring the industry.

We recommend the creation of a sub-committee to oversee this continued eContent research and to be responsible for the following recommendations.

- We recommend that specific UA eContent accessibility standards are identified and communicated to campus. Although Courseload meets all legal accessibility requirements, the UA’s Disability Resource Center found it to be unequitable to users with a print disability, which includes vision impairment.

- We also recommend establishing a cost model which enables eContent to be purchased through the University Bookstores. The Bookstores have experience and established relationships and protocols enabling them to best negotiate pricing and purchase eContent. The Bookstores are also equipped to process students’ payments through their bursars and other accounts for financial aid and scholarship purposes. Additionally, the Bookstores have established means of notifying students of course materials before registration.

- We recommend that an assessment is made of the eContent applications currently being used on campus. In addition to ensuring that instructors and departments are aware of applicable accessibility and copyright laws, our campus’s existing use of eContent can be a great source of information about how and why certain software platforms were chosen.

- We recommend focusing on ways to use eContent to lower costs and support the Never Settle initiatives.

- Ultimately, after the needs of campus are determined and UA accessibility standards are established, we recommend performing a Request for Information to narrow down which eContent platforms meet the University’s needs.

- The eContent team strongly recommends thorough testing of any platform(s) before making an investment in a significant rollout.