Iowa State University
Open & Affordable Education Committee Report

2021/2022

Key Findings

1. Open & affordable courses continue to make an impact

Since 2017, the OAEC has sought to encourage instructors to utilize more affordable course materials to support their students. As we have continued to share information across campus, the awareness and use of these materials has risen, improving the affordability of an Iowa State education for all students.

This year, 30% of all course material adoptions went toward Immediate Access (IA) materials, showing the ma-turity and impact of this now well-established program. Students enrolled in IA courses were estimated to save approximately **$1,951,000**, when the price of the IA materials are compared to the price of similar digi-tal course materials that might have been adopted for the same course.

Similarly, interest in Open Educational Resources (OER) continues to rise at Iowa State. In the 2020/2021 academic year, 13 courses utilized OER in the fall and 26 courses utilized OER in the spring. In contrast, 20 courses utilized OER in place of commercial course materials this fall, and 25 courses utilized OER this spring. In total, **4,357 students** enrolled OER courses this year, saving approximately **$480,000**.

While growth in both IA and OER use is notable, there is still work to be done to make options for affordable course materials clearer for instructors. A survey of 226 instructors at Iowa State found that 68% of partici-pants (n=130) were interested in learning more about the affordable course material options available to them, with many confused about the various options available and how to leverage them effectively.

2. New platforms enable greater success for instructors

Investments in platforms and services to support teaching and learning with open and affordable course ma-terials have also created greater engagement and interest among instructors at Iowa State, while providing a better learning experience for students. Three such improvements are outlined below:

- **VitalSource** has helped create a more consistent experience for students whose instructors have adopted e-books through the Immediate Access program at Iowa State.
- **The Course Reserves LTI in Canvas** has made it easier for students to access materials for all courses within the Canvas system. This provides a more consistent experience for students across their courses.
- **Pressbooks,** the publishing platform for open textbooks at Iowa State, has made it easier for instructors to create interactive and accessible materials for students. The implementation of the **Pressbooks LTI in Canvas** this summer should provide more opportunities for instructors using the platform to share con-tent with students within their Canvas courses.

3. Exploring future directions to innovate

As our programming to support open and affordable course materials matures, we will begin moving away from basic "cost savings" analyses and explore other aspects of impact from this work, such as:

- **Saturation**: exploring the percent of courses using no-cost or low-cost materials and the quality of their implementation
- **Degree pathways**: aiming for no- or low-cost options for students throughout their degree program
- **Innovation for student success**: helping faculty provide not just a more affordable education for stu-dents, but also a more engaging one

These are already areas we have been exploring, but they will become focuses of our work as we move away from a purely cost-based view of our work.

Background

The Open & Affordable Education Committee (OAEC) at Iowa State is a partnership formed in 2017 between the University Library, CELT, ISU Book Store, faculty, Student Government, and the Office of the Senior Vice President and Provost. Newer additions to the team such as Digital Accessibility and Financial Aid have been instrumental is expanding our impact and awareness across campus, while ensuring the quality of our work.

Committee Membership

- Abbey Elder, University Library (Chair)
- Heather Dean, ISU Book Store (Co-Chair)
- Julie Anderson, Student Government
- Chad Cardani-Trollinger, Leadership Studies
- Lesya Hassall, Center for Excellence in Learning and Teaching
- Harrison Inefuku, University Library
- Roberta Johnson, Financial Aid
- Sayali Kukday, Genetics, Development, and Cell Biology
- Monica Lamm, Chemical and Biological Engineering
- Emily Roberts, Student Government
- Geoff Sauer, English
- Brittni Wendling, Digital Accessibility

Our Work

Our work to advance affordability goes beyond cost savings and includes a commitment to advancing equity for students who want access to a high-quality Iowa State education. Access to free and affordable course materials has been shown to improve students' progress through college and into their careers.

We have also worked hard to address the needs of the student body by gathering information about how we can better support their learning experience at Iowa State. For example, we have worked closely with Student Government since the OAEC was created. Through this work, we have been able to address student concerns related to course materials, such as the discrepancy between items marked as Required or Recommended in their Booklist, as was noted in a 2019 presentation to Faculty Senate.

In addition to approving affordability, meeting student needs, and advancing equity for student success, the work that the OAEC does

Our Charge

In 2019, the committee was charged to:

- Examine national trends regarding OER and make recommendations regarding best practices of their use.

- Examine the current use of OER across ISU and make recommendations to increase their use while respecting faculty rights and responsibilities.

- Identify any impediments to OER and other affordable course materials adoption at ISU.

- Explore additional affordable course material initiatives that could be developed in the future.

- Continue to lead and administer the committee's existing OER initiatives (Open and Affordable Education Committee Charge, 2019).

Learn more about our work:

oer.iastate.edu

ties directly into the University's four thematic pillars for strategic planning:

- **Innovative solutions:** Exploring new ways of engaging students with their course materials and helping instructors consider new and emerging practices for improving the affordability of their courses through practices like open pedagogy and OER development, the implementation of new technologies like VitalSource and Canvas LTIs, and supporting instructors as they develop and explore new ways of improving their courses' affordability.

- **Education experience:** Providing a more transparent and consistent experience for students through Booklist improvements, LTI integrations, and support for high-quality, accessible online course materials with print options for students who prefer to study in print (approx. 16% of students (n=306) would prefer a low-cost print version of a textbook if given the option, based on a recent survey).

- **Knowledge and discovery**: Support for instructors learning more about IA, OER, and other affordability options and direct course support for courses using these materials to ensure a better learning environment for students. Partnering with local groups working in similar venues such as the Center for Excellence in Learning & Teaching (CELT), Digital Accessibility, and Financial Aid, to advance one another's understanding of our work and priorities for future development.

- **Community engagement**: Working with the Iowa community to advance the use of affordable course materials by sharing our practices and lessons learned locally and nationally, and by participating in local advocacy groups like Iowa OER.

Important Definitions

- **Open educational resources (OER)**: educational materials that are free of cost and access barriers, and which also carry legal permission for reuse. Materials can be accessed online or in print.

- **Immediate Access**: a program offered through the ISU Book Store that works with vendors to provide a discounted rate on a textbook and other learning materials by opting students in to pay for a digital package through their U-Bill.

  - **VitalSource:** a tool that facilitates access to Immediate Access texts in Canvas. This tool also supports VitalSource Bookshelf, an eReader tool for students.

- **Library licensed content**: materials available through subscriptions or collections provided by the University Library. This content may be used in a course or for research purposes.

  - **Course Reserves**: a program offered through the University Library that sets aside library-licensed materials that are used by a class. These materials can include streaming videos, articles, e-books, and physical items such as books.

- **LTI Tools:** external applications that are enabled for use in Canvas are added through LTI connections with third party tools. For example, the Pressbooks LTI allows instructors to seamlessly integrate OER texts within their course's modules in Canvas.

Major Findings

Current programming remains impactful

As our team has continued to provide outreach and information regarding affordable course materials, adoptions of OER and IA at Iowa State have grown, though work remains to be done to support instructors interested in exploring these and other affordable course material options.

There were over **105,000 "student enrollments"** in Immediate Access (IA) courses during the 2021-2022 academic year, with many students enrolled in multiple courses participating in the IA program. This is a significant increase from the 60,395 enrollments for 2020 courses participating in IA.

Similarly, interest in Open Educational Resources (OER) continues to rise at Iowa State, though OER adoptions have grown more conservatively than adoptions of IA materials.

4,357 students enrolled in courses using OER this academic year. This includes **1,461** students in fall 2021 and **2,896** students in spring 2022.

Courses utilizing IA had 105,848 participating enrollments this academic year, with only 1.42% of students opting out of the program.
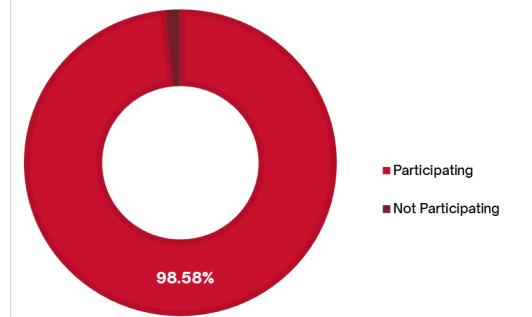
- Participating
- Not Participating

98.58%

Figure 1. Immediate Access opt-out remains low

Miller Open Education Mini-Grant Program
Now in its fifth year, the Miller Mini-Grants have funded 47 OER projects, ranging from simple tutorial videos and assessments to full textbooks. Since the OAEC started collecting data on the use of OER in 2018, Iowa State faculty using OER saved students over $1.4 million, approximately 1/3 of which is directly tied to funded Mini-Grant projects. The return on investment for these projects is exponential, with savings for students growing each year that the content is in continued use.

Barriers to the use of affordable course materials
While our programming remains impactful, awareness and use of affordable course material options is still lacking. A recent survey conducted to learn more about faculty awareness and attitudes toward our three major affordability initiatives supported by our committee found that:

- **18% of faculty (n=36) are not aware of course reserves**, with an additional 17% (n=31) lacking detail in their understanding of the service.
- **48% of faculty (n=94) are not aware of Immediate Access** as an option for their courses.
- **28% of faculty (n=55) are not aware of OER**, with an additional 18% (n=36) lacking detail in their understanding of these materials.
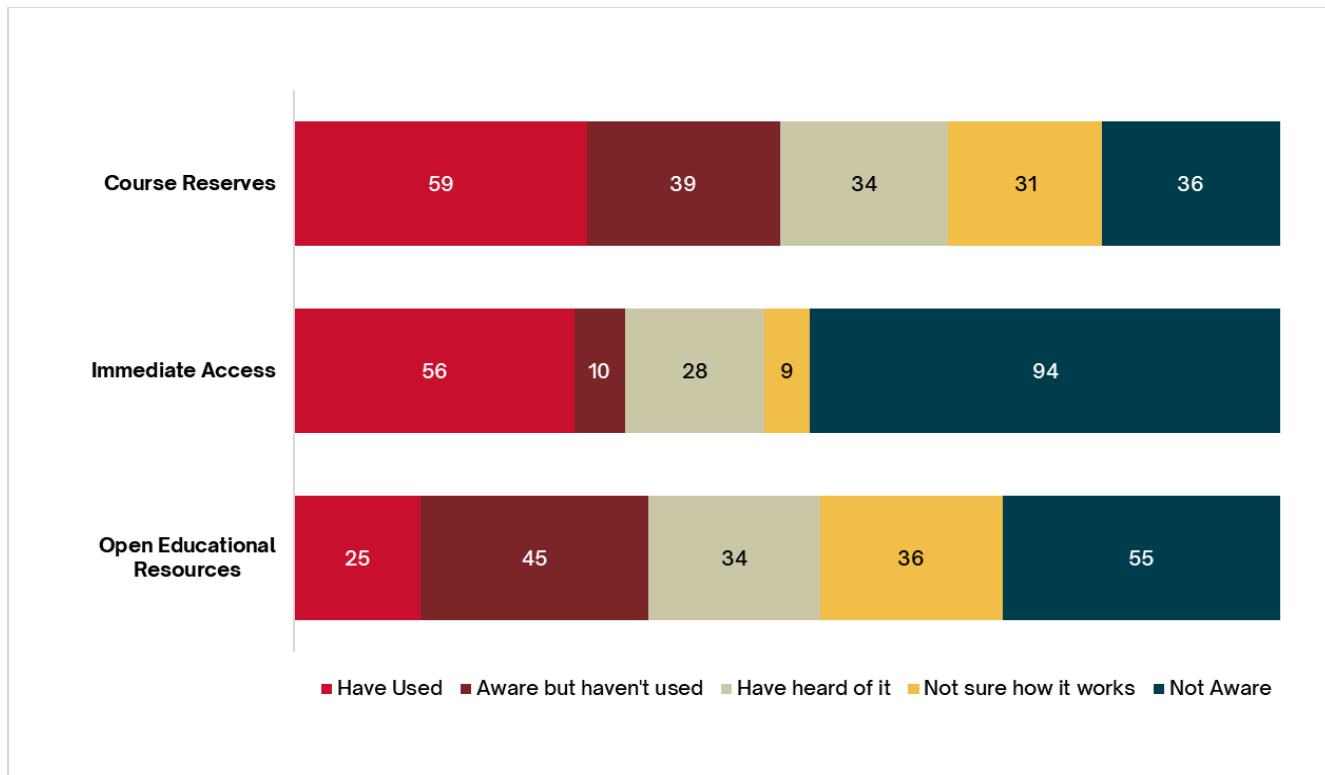
Figure 2. Instructor awareness of three affordable course material options

In our survey, we also asked instructors what barriers they had encountered in their use of these three affordable course material options.

The responses shed extra light on the previous question. For Immediate Access materials, instructors were either completely unaware of the program, had utilized it, or had heard of it but lacked detail on its use. It makes sense, then, that the biggest barrier instructors identified to their use of IA was a lack of clarity about how to get started (n=71), and a lack of time to implement the change in their courses (n=19).

Similarly, in the previous question many instructors were aware of Course Reserves, but uncertain about how it works or lacking detail. This is reflected in the answers to our barriers question, in which instructors shared that they were unsure how Course Reserves works (n=65), they lacked time to implement Course Reserves material for their courses (n=52), and they felt that the materials they needed wouldn't be available through Course Reserves (n=35).

Finally, instructors shared in our awareness question that they have heard of OER, but that few have actually utilized them in their courses. This makes sense when looking at the barriers question, in which the largest barriers to the use of OER include a lack of time to implement the materials (n=60), followed by an uncertainty about how to use the materials (n=53) and an uncertainty about whether applicable materials exist (n=57).
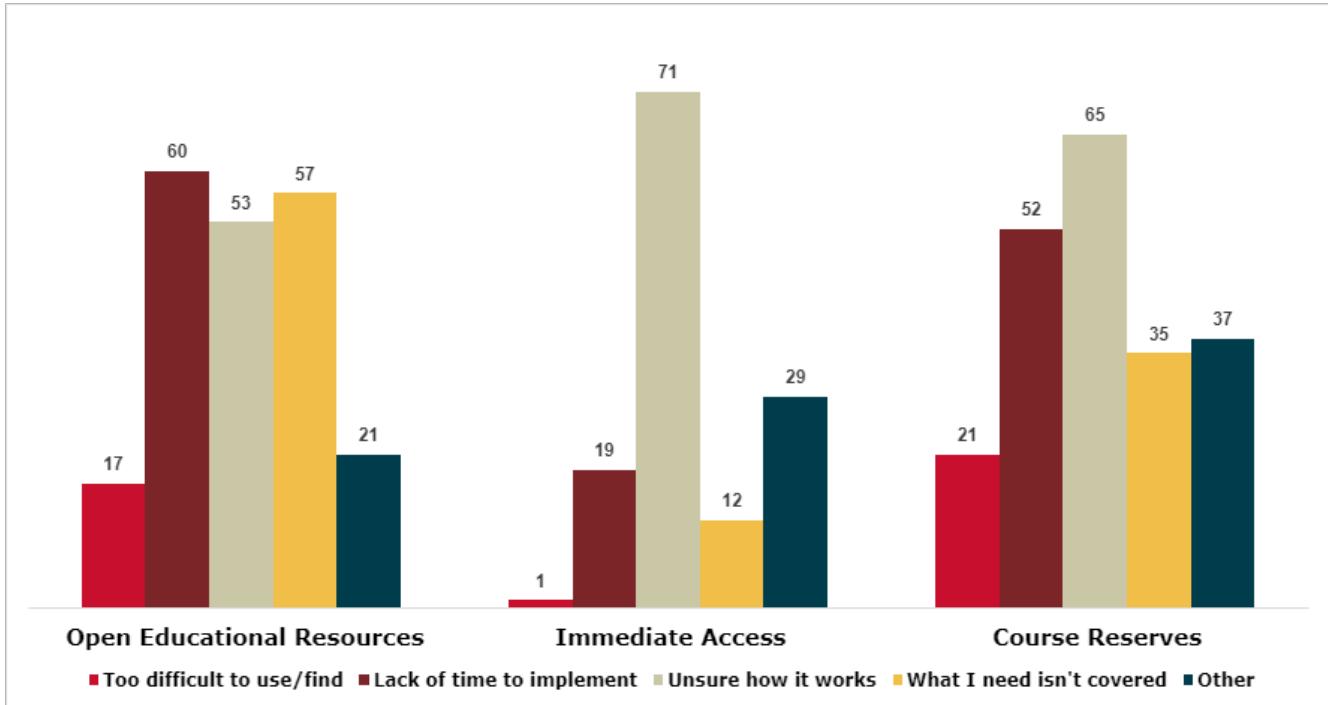
Figure 3. Instructor barriers to three affordable course material options

From the responses to this survey, we can identify a few needs for supporting greater awareness and use of our affordable course materials in the future.

- For OER, the biggest barriers are tied to instructor time and implementation. Therefore, **highlighting the incentives and support systems in place on campus**, such as the Miller Mini-Grant Program and the resources available through the university library, could ease the way for instructors considering these materials for their courses.
- For Immediate Access, the biggest barrier is general awareness of the program. For those who are aware of IA and how it works, the instructors have already decided whether IA is a good fit for their courses. **Further marketing this program and its potential use** could help instructors who are uncertain about the full scope of affordable course materials available to them.
- For Course Reserves, it appears that **greater awareness of the processes and implementation of library-provided materials in courses is needed** to demystify this service for instructors. As we will see below, many instructors use library-licensed materials in their courses; however, implementing them in Canvas through the library's robust Course Reserves system could make this process easier, if instructors understood the support available to them.

Other affordable course material options are worth exploring

While OER and IA continue to be the major initiatives supported by our committee, other affordability options continue to be popular and fill gaps for courses where IA or OER may not be as valuable in the long-term.

Our faculty survey found that most instructors have utilized some form of low- or no-cost course material in their instruction, including open educational resources (n=41); library-licensed materials such as e-books (n=59), documentaries and films (n=23), and journal articles (n=88); Immediate Access resources (n=63); free online videos (n=122); and instructor-created materials such as lecture notes (n=149).

Strategies used by Iowa State instructors to lower the cost of materials in their courses:

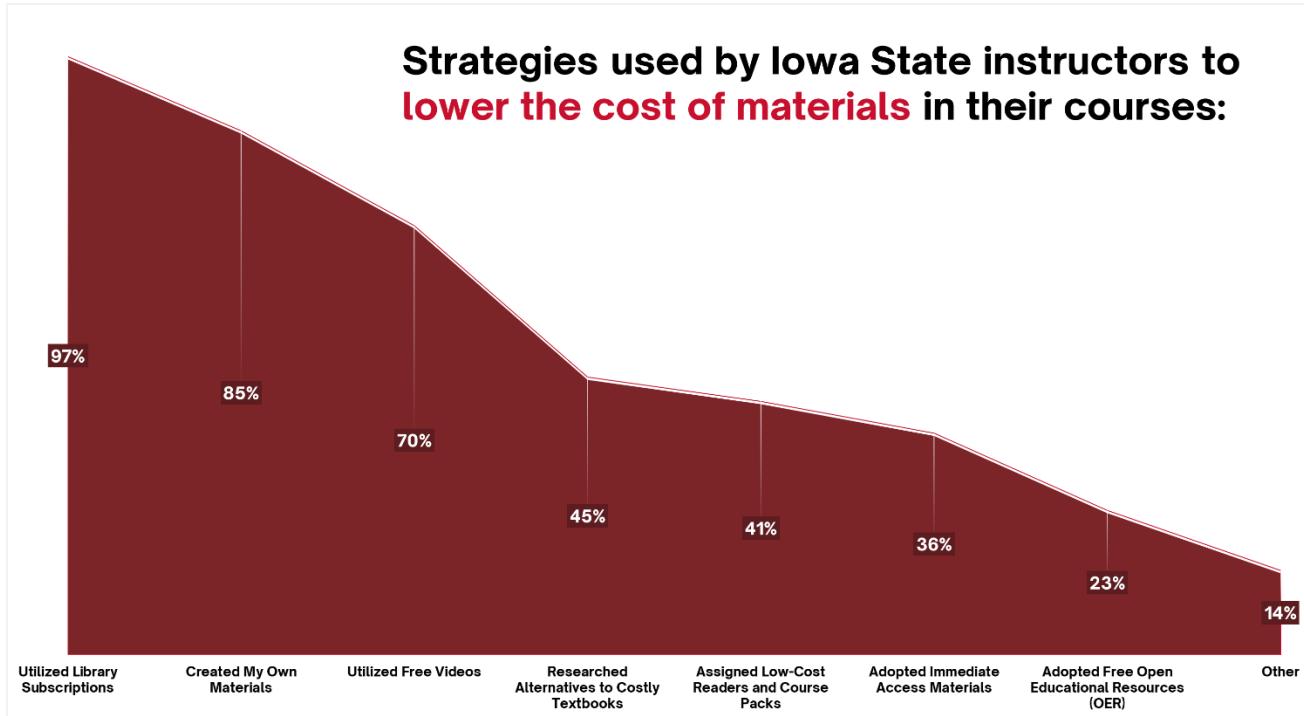|	
Utilized Library Subscriptions	97%
Created My Own Materials	85%
Utilized Free Videos	70%
Researched Alternatives to Costly Textbooks	45%
Assigned Low-Cost Readers and Course Packs	41%
Adopted Immediate Access Materials	36%
Adopted Free Open Educational Resources (OER)	23%
Other	14%

Figure 4. Affordable course material strategies vary widely

Exploring the variety and depth of affordable course material options utilized by instructors at Iowa State may be a valuable avenue for future research.

Impact on students

Nevertheless, the impact of the courses utilizing affordable course materials is notable. Alongside our survey of faculty, our committee also ran two surveys of students: one for all students asking about their general experience with course material costs, and one for students currently enrolled in courses utilizing OER, to learn about the impact of free materials on the student experience.

The findings from these two surveys were incredibly helpful when it comes to understanding the continuing concerns that students have regarding course materials, and where our current programming has had the most impact.

For example, students taking courses that utilize OER overwhelmingly rated the materials as equal to or better than traditional course materials in quality and usability, with a particular nod given to the textbook utilized in HDFS 249 for being clear and aligned to the course's curriculum:

> "It was easy to access and it was actually applicable to the course material and correlated with lecture. In other classes we're encouraged to buy textbooks but they end up not being necessary for the course."

Furthermore, many students in the overarching survey shared shout-outs to instructors who had utilized creative methods to make their course materials more affordable, such as:

> "Dr. Burras doesn't have textbooks for any of the soils classes I've had with him. He gives out printed articles/papers when he wants us to read something."

"Aubrey Mendonca's FSHN 420 course had a free pdf textbook option you could use instead of buying the book. It was amazing and such a cost saver that semester."

"Michael Olson, because he provided everything during the course when I took ME 370 & we didn't need to buy a text book. He taught everything in class, which was easy to follow, and the class was taught well!" and

"BIO 351, Corinna Most, very helpful, printed a whole lab manual for every student."

A full breakdown of these kudos are provided in Appendix A.

Where students continued to have concerns was regarding the transparency of course material costs and when materials are required. 42 of the 290 students who responded to the open-ended question, "Please share any additional information, or other challenges related to course materials affordability that you've encountered" shared that they were frustrated by courses that labeled a textbook as "required," only to ignore the book throughout the semester or use the text only a handful of times. As one student noted,

"One of the most frustrating experiences with regard to course materials at ISU is when a textbook or another type of course material is labeled "required" on my ISU book list, I order the "required" materials, and the instructor makes no use of that material at any point in the semester. As students, we are already paying an exorbitant amount of money (using student loans because many of us cannot afford this education on our own, with or without familial support) just to attend ISU (or any other college or university). The least that said college or university can do is to communicate with their professors, determine which ones are actually utilizing the course materials, and put in the extra effort (we do it all the time, as students) to accurately reflect the "required" status of the course materials. ISU shouldn't go around touting its commitment to saving students money when there are a significant number of students who pay money that they wouldn't have paid otherwise, had they known whether a given piece of course material was actually going to be of required use by the students. This is why many students opt to wait for the first day to purchase the required material and are picked on by the professors for doing so. Sometimes, a student really does have to come to class to figure out whether the required course material actually is required to complete the course."

This concern has come up in previous years, and continues to be a concern for students, particularly those low-income students who have to carefully budget for course materials to meet their learning needs. Responding to and working toward a more transparent course material adoption process will be particularly important, moving forward. We would welcome action from academic leadership to help shed light on this issue and urge instructors to only assign materials as required if they are to be used within the course of their teaching.

New platforms enable greater success for instructors

Multiple technological integrations in Canvas have helped streamline students' access to open and affordable course materials at Iowa State, with new opportunities arising for greater engagement this year.

VitalSource has helped create a more consistent experience for students whose instructors have adopted digital course materials through the Immediate Access program at Iowa State by centralizing Day 1 access directly in Canvas. In addition to savings students money and time, the platform also provides access to

publisher courseware which can help students develop effective study habits and supports offline reading with the Bookshelf eReader.

Pressbooks, the publishing platform for open textbooks at Iowa State, has made it easier for instructors to create interactive and accessible materials for students. This year, Dress, Appearance, and Diversity in U.S. Society, a course using an open textbook developed with the ISU Digital Press by Kelly Reddy-Best, an Associate Professor in Apparel, Events & Hospitality Management, received Quality Matters certification, a rare accolade that requires undergoing a rigorous peer review process to ensure the quality and accessibility of online and blended courses. To date, the Iowa State University Digital Press has published 16 open textbooks and lab books in Pressbooks, with an additional 12 open textbooks in development as of spring 2022. Ancillary OER, such as lesson plans and presentation slides, are made available through the ISU Digital Repository.

The implementation of the **Pressbooks LTI in Canvas** this summer should provide more opportunities for instructors using the platform to share content with students seamlessly in their Canvas course shell. This addition will also allow instructors to implement graded assessments within their OER texts.

The Course reserves LTI in Canvas has made it easier for students to access materials for all courses within the Canvas system. This provides a consistent experience for students across their courses and ensures that, when instructors are utilizing library-licensed materials, they can be shared with students easily.

Exploring future directions

As the affordable course material programs at Iowa State mature, cost savings will likely become a less useful metric for our team to utilize when assessing our work. Some courses have been using OER or IA for so long that it wouldn't be accurate to say students are "saving money." The course has moved beyond that point. Instead, it may be useful for our committee to take a higher-level approach to considering affordability at scale, by looking at the level of saturation across a major, department, or college. This could lead to more innovative and impactful approaches for our student body as noted in the examples below.

Improving the Student Experience

Course markings are tags applied to a campus course list or book list which shows at a glance if a section of a course is utilizing OER, no-cost course materials like journal articles available via Course Reserves, or low-cost materials (typically less than $50). Course marking initiatives are often involve broader discussions with campus leaders about student information systems and campus store software. Examples of effective course markings can be seen at the University of Kansas.

While we cannot promise that this sort of endeavor could come to fruition in the coming year, it is a potential area of consideration as we explore ways to make course material costs more transparent for our students. A more tangible goal the Bookstore is working toward is to enhance the Booklist by integrating it in Canvas.

Innovation for Student Success

Another potential area of future exploration is **building communities of practice** to support instructors who are innovating in their course design along with their course's affordability. Learning communities and fellowship programs provide a space for faculty to come together over a shared interest in a new or emerging practice. Groups like the Open Pedagogy Incubator at North Carolina State University have proven that this

kind of work can empower new faculty to innovate in their teaching and collaborate with other instructors both within and outside of their college. Similar programs at Iowa State, like the Teaching and Learning Community for Team-Based Learning, also provide excellent examples we can follow.

Degree Pathways

Finally, it may be advantageous to explore opportunities where our efforts can be scaled to support a wider programmatic affordability initiative across the university, rather than one that targets individual courses.

Zero Textbook Cost (ZTC) Programs are made possible by partnering with departments to ensure that at least one section of each course in a degree pathway has committed to using no-cost course materials, such as library-licensed materials available through Course Reserves or OER. ZTC programs are often paired with course marking initiatives, so students can see at a glance what courses have assigned no-cost course materials and meet the requirements for their degree program. In Iowa, the only current ZTC program is available at Northeast Iowa Community College.

Targeted support for publishing collections are another area of potential interest. Iowa State University currently offers support for faculty interested in developing new open textbooks and other OER through our publishing platforms and Mini-Grant program. However, other institutions have moved beyond this approach to provide more targeted support to advance the development of high quality OER. One such example can be seen in Boise State University's Pathways Project, which has partnered with their World Languages department to develop a suite of OER to support courses at their institution and across K-12 classrooms in the state of Idaho. Work like this could also further the university's priority to advance community engagement and to invest in the land-grant mission that Iowa State University stands for.