Abstract

The rising cost of textbooks has created significant financial barriers for college students, leading to the emergence of the Open Educational Resources (OER) movement. OER, which includes freely accessible and openly licensed materials, has the potential to address issues of educational equity, affordability, and quality in higher education. Institutional OER programs promote collaboration among various stakeholders and increase access to affordable resources for students. Faculty engagement is crucial in integrating OER into courses, while libraries provide repositories of materials and guidance on copyright. Grant funding incentivizes the adoption and creation of OER, including discipline-specific materials. State-level initiatives and government policies also play a key role in facilitating OER adoption. However, various obstacles, such as faculty resistance and concerns about quality, must be addressed for OER initiatives to succeed. In this paper, a thorough examination of OER initiatives will be presented, covering both institutional and state levels. Additionally, it will delineate potential obstacles hindering the widespread adoption of these resources. Moreover, substantial evidence showcasing the positive impact of OER usage for both students and faculty will be presented. Overall, OER has the potential to make quality learning resources universally accessible, foster innovation, and create a culture of collaboration in education.

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Introduction

In previous years, research conducted by PIRG stated that 77% of college faculty said the price of books are rarely discussed in their meetings with publishers and only 38% of these publishers provided the textbook cost at their request (Zomer, 2007). Furthermore, only 63% of these faculty members reported knowing the price of the course material they assign. More recently, Bay View Analytics surveyed over 2,700 college professionals and found that 86% of administrators and 64% of faculty agreed that the cost of course materials is a serious problem for their students (Seaman & Seaman, 2022).

In recent years, there has been a surge in the adoption of e-textbooks and online access codes – a format initially perceived as a cost-saving alternative to print textbooks. However, reality has diverged from this perception. Eighty percent of the textbook industry is controlled by three publishers – McGraw Hill, Pearson, and Cengage – and predatory practices have persisted (Hanson, 2023). Because online codes are often needed to access homework assignments and other resources, this model eliminates students' ability to share, borrow, buy used, or re-sell the

modified with proper credit. They are easily accessible in digital formats, allowing broad

availability to individuals with internet access, especially those facing financial limitations or

restricted access to traditional educational resources. OER encompasses a wide range of

materials, including textbooks, lecture notes, multimedia content, assessments, and more. The

concept of OER has gained significant traction in the past two decades, driven by the increasing

availability of digital technologies, the rising cost of traditional textbooks, and the recognition of

the benefits of open access to education (Fischer, Hilton III, Robinson, & Wiley, 2015; Seaman

& Seaman, 2022).

OER initiatives have emerged at various levels, from grassroots efforts by individual

educators to institutional collaborations and government-funded projects. Many colleges and

universities have embraced OER as a means to reduce students' financial burdens, foster

innovation in teaching and learning, and support the broader goals of open education (Fischer,

Hilton III, Robinson, & Wiley, 2015).

By leveraging the power of open licensing, accessibility, adaptability, and collaboration,

OER has the potential to address issues of educational equity, affordability, and quality. OER

possesses the ability to transform education by making quality learning resources available to all,

promoting pedagogical innovation, and fostering a culture of knowledge sharing and

collaboration in academia. The aim of this paper is to provide an overview and comparison of

programs promoting the use of open educational resources.

OER Initiatives

Institutional level

OER programs at the institutional level have gained significant attention and momentum as colleges recognize the transformative potential of such resources. These programs are designed to promote the development, adoption, and utilization of openly licensed educational materials that align with the institution's curriculum. The previously cited survey of college personnel shows that the amount students spend on textbooks is a major concern for both faculty and administrators (Seaman & Seaman, 2022). By adopting OER, colleges can significantly reduce or eliminate the costs associated with traditional textbooks, providing students with free or low-cost alternatives. This approach helps alleviate existing financial burdens, making education more accessible and inclusive.

Institutional OER programs often involve collaboration among various stakeholders, including faculty members, instructional designers, librarians, and administrators. Faculty members play a critical role in identifying, evaluating, and integrating OER into their courses. They may adapt existing OER materials or create new ones that align with their teaching goals

copyright, licensing, and attribution requirements associated with OER. Instructional support services, such as instructional designers and technologists, assist faculty in effectively integrating OER into their practices, ensuring a seamless transition and optimizing the learning experience.

Institutional OER programs provide training, support, and professional development opportunities to faculty members, enabling them to effectively find, evaluate, and integrate open educational resources. Workshops, seminars, webinars, and peer-to-peer collaborations are commonly offered to enhance faculty members' understanding of OER, copyright implications, open licensing, and effective instructional strategies. These initiatives help build a community of practice within the institution, fostering ongoing dialogue and continuous improvement in OER integration. By offering such resources, institutional OER programs empower faculty members to make informed decisions and successfully utilize OER in their courses.

Grant funding has emerged as a powerful tool in promoting the adoption and development of open educational resources (OER) within colleges and universities. Recognizing the potential of OER to enhance affordability, access, and student success, institutions have increasingly turned to grant money as a means to incentivize OER initiatives. These grants provide vital financial support to faculty, administrators, and institutions, encouraging them to explore, create, and share openly licensed educational resources.

By providing resources to facilitate the transition from proprietary textbooks to freely accessible OER materials, grants enable colleges to significantly reduce textbook costs for students, thus making education more affordable and accessible. Grant programs often prioritize

initiatives targeting high-impact courses with large enrollments, ensuring that a substantial number of students can benefit from OER adoption.

In addition to supporting the adoption of existing OER, grant funding also plays a crucial role in encouraging the development of new OER materials. By incentivizing faculty members to create, adapt, and share openly licensed resources aligned with their course objectives and pedagogical approaches, grants empower educators to actively participate in OER development. This fosters a sense of ownership and promotes the creation of high-quality, discipline-specific resources that cater to the unique needs of their students.

State level

Statewide OER programs are broader approaches to promoting the adoption and utilization of OER across higher education institutions. A few notable examples of such programs are California's Affordable Course Material Initiative (ACMI), Maryland Open Source Textbook (M.O.S.T.), and New Jersey's Open Educational Resource Repository (OpenNJ). Beyond the fundamental functions typically found in institutional-level OER programs, these programs encourage collaboration among faculty members across various campuses, fostewflew

individual campuses. Strong partnerships with campus libraries have enabled the creation of

repositories of affordable materials, ensuring students have access to a wide range of learning

materials

and enhance student success. These collaborations have laid the foundation for the development of sustainable models that promote affordable course materials on a systemic level.

Government policies play a crucial role in promoting the adoption and utilization of OER in education. According to SPARC, a nonprofit organization that supports open education, 30 states have implemented policies to encourage the widespread use of OER (SPARC, 2020). One common approach is the establishment of OER grant programs. As previously discussed, grant funding supports the development and adoption of OER materials by faculty members and educational institutions. It provides financial incentives and resources to encourage educators to explore OER options, create new OER materials, and integrate them into their courses.

Furthermore, some states have created policies that require or encourage educational institutions to implement OER policies or guidelines. In 2019, New Jersey passed a law that requires institutions of higher education to develop an open textbook plan. Within 180 days of the effective date of this bill, institutions of higher education have to submit a plan to the state Secretary of Higher Education to expand the use of open textbooks and commercial digital learning materials in order to achieve savings for students enrolled in the institution (State of New Jersey, 2019). By formalizing the inclusion of OER in curricula, states promote the use of cost-effective resources and encourage faculty members to consider OER as viable alternatives to traditional textbooks.

A federal bill proposed in both houses of Congress in March 2023, The Affordable College Textbook Act, would direct the U.S. Department of Education to create grants for OER initiatives at the state and institutional levels. The Affordable College Textbook Act would

education often relies on community members who champion them through departmental, institutional, or system-wide initiatives.

When it comes to awareness, administrators tend to be more informed about OER initiatives compared to faculty members. According to the previously cited Bay View Analytics survey of 2,759 faculty members in U.S. higher education, approximately 43% of administrators are aware of departmental, institutional, or system-wide initiatives for OER, whereas only 27% of faculty members are aware (Seaman & Seaman). This difference in awareness is not surprising as administrators often initiate such efforts and serve as the primary target audience

2018). A study conducted by the Student Public Interest Research Groups (Student PIRG) found that every dollar invested in OER grants, students saved up to $20, which is a substantial return on the investment (Xie, 2023). Furthermore, faculty members who switch to OER tend to continue doing so, therefore future data is anticipated to demonstrate an even greater return on OER investments. Even one-time grants had a lasting impact, resulting in ongoing savings for students. Though data is still being collected for many, a small selection of grant programs initiated during the pandemic have already resulted in more than $2.5 million in savings for students (Xie, 2023). In addition, OpenStax, a Rice University open resource initiative which published its first textbook in 2012, alone has generated $1.2 billion in savings for students (Xie, 2022).

Learning outcomes

Numerous studies have shown that the use of open and affordable course materials positively impacts student learning outcomes, including grades, enrollment intensity, withdrawal rates, and student satisfaction. In 2011-2012 case study of 1,060 Houston Community College students who took an introductory psychology course, those who used OER had better overall course grades, lower withdrawal rates, and higher scores on their final exams (Hilton & Laman, 2012). In a pilot study of 991 students at Virginia State University School of Business in 2012, data showed that course pass rates increased by 20% when OER was(y S)-4 (c)4 (hool)-2 (of)3 R56w [2ove)-6 (

to create a more inclusive and effective learning environment across various educational

contexts.

Collaboration

Engaging stakeholders beyond the university systems, such as publishers, educational

technology providers, and student organizations, has yielded fruitful results. Establishing an

learning styles of their students (Belikov & Bodily, 2016). This adaptability allows educators to

tailor the content, structure, and format of the materials to align with their curriculum goals,

providing support and resources, and establishing policies that incentivize OER adoption. By leveraging the power of open licensing, collaboration, and adaptability, OER programs can make quality learning resources universally available, foster innovation in teaching and learning, and cultivate a culture of collaboration in education. As the OER landscape continues to evolve, ongoing efforts to address obstacles will further solidify its role. With continued support, investment, and broadened collaborations, the OER movement has the potential to reshape the landscape of education, making it more inclusive, affordable, and learner-centered.

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