

A National Platform for Authoring Open Textbooks
Open Textbook Network (Regents of the University of Minnesota)

Escalating textbook costs in higher education negatively impact students' academic success, especially those students who are most financially vulnerable. The Open Textbook Network (OTN) is a rapidly growing consortium of colleges and universities with members that include 81 individual academic libraries and 17 library consortia representing 787 libraries total. Housed at the University of Minnesota, the OTN is committed to advancing the use of open textbooks and requests \$490,144 (fully matched by the University of Minnesota) to create a national platform and services for the authoring of open textbooks where there are currently gaps, and document best practices, workflows, and decision making guidelines around these tools.

Statement of National Need

The focus on open textbooks is a nationally significant and timely movement, due to escalating educational costs of higher education and course materials, and the changing technological landscape. Students report that they frequently take fewer courses, drop courses, and even fail courses because of the cost of their textbooks¹.

An increasing number of institutions are looking to open textbooks as a solution. Open textbooks are funded, published, and licensed to be freely used, adapted, and distributed. But the number of existing open textbooks is limited, and many faculty who want to adopt an open textbook can't because a textbook in their field does not exist. More open textbooks need to be created, and academic libraries are in a unique position to support this effort.

Some libraries have existing interest and capacity to support publishing - typically journals or monographs. But textbooks are very different publications than journals and monographs. They utilize graphics and numerous instructional design elements that call-out learning objectives, problem sets, examples, and other components that contribute to students' understanding of the topic.

In August, 2015, the OTN member institutions identified "open textbook publishing support" as a top priority for the OTN. Over the past 2.5 years, OTN staff have talked and worked with faculty authors, university press directors, publishers, support staff, librarians, and those involved in early open textbook publishing programs to better understand what support is needed.

There are a number of open source software platforms that help with different aspects of publishing, such as managing the editorial workflow (e.g., PKP's Open Monograph Press) and typesetting and file format conversion (e.g., Pressbooks). But there is no platform that helps with the actual authoring tasks that faculty (and those who support faculty) need to address when authoring something as complex as a textbook.

Project Design

Therefore, the OTN proposes the development of an open source national platform for authoring open textbooks and training based on best-practices, workflows, and decision making guidelines around the use of the platform. The work will be guided by a workgroup with members representing a diverse set of institutions (public/private, 2-year/4-year/research) and expertise (libraries, instructional design, accessibility, faculty) recruited from the vast expertise existing within OTN member schools. The software will be developed using open source programming components (e.g., php, ruby on rails, jQuery, MySQL). Once produced, the software will be openly licensed (e.g.,

¹ Florida Virtual Campus. (2012). 2012 Florida Student Textbook Survey. Tallahassee, FL: Author.

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MIT or GNU General Public License) and released publicly. The training will be offered in a variety of formats, including online and in person as part of the OTN's existing annual Summer Institute.

July 1, 2019 - October 31, 2019: Project kickoff. OTN publishing workgroup created.

Requirements finalized.

November 1, 2019 - February 28, 2021: Iterative, agile software development. Multiple rounds of functionality integration, internal and workgroup testing, and iteration.

December 1, 2020 - February 28, 2021: Documentation and training developed.

March 1, 2021: First release of authoring platform.

March 1, 2021 - May 1, 2022: Pilot with member institutions and faculty, including training local staff to support faculty. Minimum of five institutions creating one textbook with one faculty each.

May 1, 2022 - June 30, 2022: Program evaluation (see below). Platform code released with open license.

Faculty authors for this project will be recruited from those OTN members who have staff/librarians who are willing to serve as local support. The workgroup will determine which subject areas to prioritize (where there is need), and preference will be given to authors in those areas.

To be successful, this project must produce software that is reasonably simple for faculty to use. Upon completion of their textbooks, we will ask the faculty authors about their experiences with the software to better understand whether the software functioned as desired. Also, the textbooks produced must be of adequate quality, so we will incorporate peer review as part of the publishing process and examine the results to determine if there are aspects of the software that interfere with the production of quality open textbooks.

This project will be planned and managed by Dr. David Ernst, Chief Information Officer in the College of Education & Human Development at the University of Minnesota. He is also Director of the Center for Open Education and Executive Director of the Open Textbook Network. Dr. Ernst has personally developed several software applications and has managed a software development team for the past eight years. Karen Lauritsen, OTN's Director of Publishing and Collections, will also guide the development of the platform. Ms. Lauritsen is currently responsible for all of the OTN's textbook publishing efforts.

National Impact

By creating this national platform, libraries will have a tool to support faculty authors. Libraries would then be positioned to lead conversations about the economic, educational, and scholarly value of open textbooks on a national scale. Once created, the national platform will be supported by the OTN through funding from membership dues and possibly from grant funding, as appropriate.

Budget

The total budget for this three-year project is \$980,288 (including \$490,144 in cost-sharing from the University of Minnesota). This budget includes \$526,868 in salaries (Principal Investigator - \$117,137; Director of Publishing and Collections - \$78,717; Application Developer - \$331,014) and \$180,189 in fringe benefits. A total of \$30,000 is budgeted for travel to help disseminate the work at national conferences upon completion. Indirect costs (33% MTDC) total \$243,231.