

This two-year project aims to create the OER Librarian Bootcamp - a professional development program to prepare librarians who are, or are seeking to be, responsible for open education initiatives.

Escalating textbook costs in higher education negatively impact students' academic success, especially those students who are most financially vulnerable. Open textbooks are an ideal solution. The Open Textbook Network (OTN) is committed to advancing the use of open textbooks and requests \$247,912 to develop the OER Librarian Bootcamp program.

Academic librarians are the ideal professionals on campuses to direct open textbook programs, but there is no professional development program to prepare librarians to do so. Through the Bootcamp, 30 librarians (in year one) will develop comprehensive knowledge in open education and open education programming, and be able to apply that knowledge within their own local context, culture, and goals. Curriculum will also address building programs that allow for multiple layers of engagement with faculty including adoption, editing, creating, and teaching strategies with OER. Upon completion, participants will receive certificates indicating that they successfully completed all requirements of the OER Librarian Bootcamp.

The principal investigator for this project will be Dr. David Ernst, Chief Information Officer in the College of Education and Human Development at the University of Minnesota. Dr. Ernst is also Director of the Center for Open Education and Executive Director and founder of the OTN. The OTN team (including Sarah Cohen, Managing Director, and Karen Lauritsen, Director of Publishing and Collections) will work in collaboration with all of OTN members, including 50 individual academic libraries and eight library consortia, for a total of 402 library members nationally. Bootcamp participants will be selected by the Bootcamps Curriculum Team (membership to be determined) and the Open Textbook Network Steering Committee (Robert Butterfield, University of Wisconsin – Stout; Teri Gallaway, The Louisiana Library Network; Tanya Grosz, University of Northwestern St. Paul; Ashley Miller, The Ohio State University; Glenda Thornton, Cleveland State University; Anita Walz, Virginia Tech).

Assessment of the program's overall success will be gauged across audiences and over multiple time frames. During Bootcamp, participants must develop action plans and share them with their supervisors. Immediately upon completion of the in-person program, Bootcamp participants will be asked to complete a survey evaluating the program as a whole and in sections, program pedagogy, and relevance of the content to their local program. Participants will be contacted again after six-months, also coinciding with the conclusion of their cohort meetings. Participants will be asked to again reflect on the value of the program with more questions on their preparedness for developing sustainable open education programming at their local institution, and identifying areas needing further addressing once they're engaged in their local situations. Participants' Deans, Directors, or supervisors will also be contacted six months after the completion of the in-person program to assess the value of the participation for their local programming. They will be asked about the value of the action plans created by Bootcamp participants and to evaluate the progress being made.

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 50 individual academic libraries and eight library consortia representing 402 libraries total. Housed at the University of Minnesota, the OTN is committed to advancing the use of open education and requests \$247,912 to develop and pilot a comprehensive program for librarians to build and improve open education expertise and programming on their campuses.

### **Statement of Need**

Escalating education costs have a significant impact on student access and success in higher education. It's estimated that high costs kept as many as 2.4 million students from completing a bachelor's degree in the first decade of the 21st century<sup>1</sup>. Students are being asked to pay an increasingly larger percentage of higher education costs<sup>2</sup>, resulting in record student debt.

The cost of textbooks is the fastest growing part of this cost. Indeed, textbook prices have been "going up at a much faster rate than any other consumer product."<sup>3</sup> For the 2016-17 school year, students were asked to budget between \$1,230 - \$1,390 per year for course materials on average<sup>4</sup>. This high cost creates a barrier to higher education and has a significant impact on student success, especially for those students who are most financially vulnerable. Students report that they frequently take fewer courses, drop courses, and even fail courses because of textbook costs<sup>5</sup>.

In recent years, interest in Open Educational Resources (OER) has grown rapidly as a solution to this troubling trend in higher education. OER is created and licensed to be freely distributed, used, adapted. They can be downloaded for no cost, providing all students with free, continuous access to course materials. In addition, open textbooks offer faculty the flexibility to customize the content to meet students' learning needs.

OER has the potential to help millions of students. But there are barriers<sup>6</sup> and misperceptions that could keep faculty from adopting OER. For use of OER to increase, colleges and universities need to engage with faculty to increase faculty awareness, highlight benefits, and address misconceptions and barriers to adopting OER. Research has shown that once faculty engage with OER, their perceptions are positive. Hilton (2016) found that:

*Over 5,000 students and faculty members have shared their perceptions across a dozen studies that have focused on perceptions of OER. In no instance did a majority of students or teachers report that the OER were of inferior quality.<sup>7</sup>*

Academic librarians are the ideal professionals on campuses to direct open textbook programs. Librarians have been working to reduce higher education costs for decades. They are

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<sup>1</sup> <http://files.eric.ed.gov/fulltext/ED529499.pdf>

<sup>2</sup> <http://www.sheeo.org/projects/shef-%E2%80%94state-higher-education-finance>

<sup>3</sup> NBC News (2015). *College Textbook Prices Have Risen 1041% Since 1977*.

<sup>4</sup> <https://trends.collegeboard.org/college-pricing/figures-tables/average-estimated-undergraduate-budgets-2016-17>

<sup>5</sup> Florida Virtual Campus. (2016). *2016 Student Textbook and Course Materials Survey*.

<sup>6</sup> <https://www.onlinelearningsurvey.com/reports/openingthetextbook2016.pdf>

<sup>7</sup> <http://openedgroup.org/review>

trusted by faculty and seen as unbiased sources of academic materials. They are often experienced in intellectual property issues and open licenses. This established knowledge is a solid foundation for building related expertise in OER. In addition, they have existing relationships with faculty and an understanding of issues across the curriculum. With some additional professional development, they are in an ideal position to build open education programs to save students money, and potentially work as faculty collaborators in developing new OER.

Many libraries across the nation have already started campus OER initiatives. Many more would like to, but need professional development and training for librarians. Running a successful campus OER initiative requires librarians to be able to comfortably talk about OER and answer common questions about them. For instance: What is a Creative Commons license? How are open textbooks funded? How can a free textbook be good? Librarians need to be effective in making faculty aware of OER, addressing their misconceptions, and supporting their decisions to adopt, edit, or create new OER. This involves field knowledge, tech skills, and soft skills to navigate what can be challenging conversations with faculty.

The number of tools being developed to help support open education work is increasing, and librarians need to be fluent in understanding how to leverage these components of the National Digital Platform. Librarians could be positioned to become experts in new platforms that are rapidly evolving to support open education curation, adaptation, and authoring. Not only that, as professionals intimately acquainted with the barriers in the open textbook life cycle, they can inform the development of these tools. Librarians are early adopters working at the cutting edge of open textbook initiatives, but we need more of them.

The demand for OER programs in academic libraries is clear. Since its inception in 2014, the Open Textbook Network (OTN), an alliance of academic libraries committed to the advancement of OER, has quickly grown to represent over 460 colleges and universities. This is a reflection of libraries' interest in showing academic and fiscal impact on their campuses through open textbook programs. The OTN has already helped member libraries save students millions in textbook costs.

As further confirmation of need, the OTN frequently invites feedback from its member librarians about priorities. At the 2016 OTN annual meeting, members prioritized professional development and leadership development programs far above all others. The OTN's steering committee, comprised of librarians, library deans and instructional designers, has similarly encouraged the OTN leadership to expand training and professional development programs.

Several letters of support (attached) from leading libraries (Temple University, University of Massachusetts at Amherst, Pennsylvania State University, University of Washington, and others) confirm that the need is clear: librarians across the country are being asked to develop open education programming to support OER curation, faculty adoption of OER, and OER editing and creation. The Association of College and Research Libraries (ACRL) partnership on this project (see below and attached letter of support) is further evidence of the need for this project. There is no existing program that can fill this need for preparing librarians to run open education initiatives. A quality, comprehensive program is necessary for libraries to solidify themselves nationally as strong community anchors for open education in colleges and universities.

## **Project Design**

To address this growing need within the profession, the Open Textbook Network will develop the "OER Librarian Bootcamp" - a professional development program to prepare librarians who are, or are seeking to be, responsible for open education initiatives. Through the Bootcamp, librarians will develop comprehensive knowledge in open education and open education programming, and be able to apply that knowledge within their own local context, culture, and goals. In addition, participants will focus on dispositions necessary to navigate the interpersonal and institutional conflicts often encountered when building open education programs. Some examples include: navigating questions about academic freedom, building productive relationships with the campus bookstore, and engaging library colleagues in open education initiative. Curriculum will also address building programs that allow for multiple layers of engagement with faculty including adoption, editing, creating, and teaching strategies with OER. Upon completion, participants will receive certificates indicating that they successfully completed all requirements of the OER Librarian Bootcamp.

By attending OER Library Bootcamp, participants will:

1. Gain fluency in defining open education including its core benefits, challenges, and potential.
2. Strategize where they will find collaborations and alliances locally to support faculty needs around OER adoption, use, and creation.
3. Design and have actionable steps to take to build sustainable open education programming based on local considerations, culture, strategic alignment, and goals.
4. Develop strategies for measuring and articulating impact of open education on multiple constituents to various audiences.
5. Connect and collaborate with a cohort of librarians dedicated to developing OER initiatives across the country.

## **BOOTCAMP PROGRAM DESIGN**

Modeled on similarly immersive professional development programs, the integrated components of the Bootcamp program include: pre-workshop online content, mentor-led cohorts, an immersive four-day in-person workshop, and post-workshop program development and assessment.

### **Pre-Workshop Programming**

Prior to attending the in-person Bootcamp program, participants will complete three virtual components: the online elements of the Creative Commons' Librarian Certificate program; a review of key research on open education; relationship-building with their cohort and mentor.

The Creative Commons' Librarian Certificate program, developed with previous IMLS funding, will offer core competency in open licensing while also focusing on library-specific outcomes. By completing this training, Bootcamp participants will gain essential knowledge and skills around the benefits and use of Creative Commons licenses, the cornerstone of OER. Creative Commons estimates that each of the six on-line modules take approximately 30 minutes to complete. Ryan Merkley, CEO of Creative Commons, has contributed a letter to this application showing his support for this partnership. This arrangement allows the Open Textbook Network to leverage previous IMLS

investments in the certificate program, and will give Bootcamp participants the opportunity to complete this additional certification through the Creative Commons. The cost of the Creative Commons certificate completion will be included in fees associated with Bootcamp participation.

In addition, Bootcamp participants will be asked to familiarize themselves in core open education research, case studies, and theory. Participants will be asked to read a host of openly licensed research to become more familiar with reasons for open, definitions, debates, efficacy, and changes within the field. The Bootcamp Curriculum Team will select these readings and share them virtually with participants

### Mentor-Led Cohorts

Participants will also be assigned a cohort and a mentor with whom they will connect before, during, and after the in-person training. A mentor to mentee ratio of 1:6 will allow mentors to provide tailored support to each of their mentees while also allowing cohorts to get to know one another, and their local contexts, deeply.

Prior to the in-person Bootcamp workshop, cohorts will introduce themselves online, outline their goals and aspirations for OER programming at their institution, identify concerns around advancing open education locally, and articulate their learning goals for the Bootcamp. Using a cohort model will build an on-going community who will support learning, participation, and engagement will also holding participants accountable when they return to their institutions. To be most successful, they will need to rely on each other and share their experiences, both positive and negative.

### In-Person Workshop

During the in-person, 4-day immersive workshop, attendees will spend their time engaged in interactive discussions, practice sessions, mentorship meetings with Bootcamp faculty, and individual work time to develop local action plans to take back to their institutions.

While gaining essential building blocks to open education, participants will also learn how to facilitate productive dialogues around what can be a controversial topic. The Open Textbook Network has proven strategies that refocus the conversation around the potential of open. Steven Bell, Associate University Librarian at Temple University, describes in his attached letter of support that the OTN's expertise that "I always return from OTN meetings with greater expertise and better qualified to discuss and support OER adoption with our faculty."

The in-person workshop will give participants the opportunity to explore the following curricular themes:

1. Open Education: Topics include how it's defined (including open licenses) and why it's something worth advancing, and key benefits to students, instructors, and institutions (higher education affordability, pedagogical innovation, social justice).
2. Building Sustainable Programming: Topics include migrating from projects to long-range programming; Demonstrating Impact; Developing inter-library connections with Liaisons, Scholarly Communications / Institutional Repositories, Teaching and Learning and Information Literacy librarians, Open Access initiatives, Access Services, etc.
3. Working with Faculty: Topics include addressing barriers to open education such as concerns around academic freedom and quality; strategies and mindsets for hard conversations;

selecting effective faculty engagement strategies including advocating for open textbooks, building layered engagement, and using data and local stories.

4. OER Discovery and Curation: Topics include raising awareness through curation; OER metadata initiatives; analysis of different OER repositories.
5. Leading institutional initiatives: Topics include demonstrating and communicating impact; building institutional relationships with bookstores, centers for teaching and learning, and student groups; anticipating and managing conflict around open, publishing, relationships on campus, administrative and technological challenges, workload, and more; supporting local action.
6. Supporting Editing: Topics include resources to support editing, technical requirements, finding institutional partners to support these efforts, version control and curation.
7. Supporting Creation: Topics include conversation about creation versus adoption, project scope, project management, technical infrastructure needs assessment, services, on-going maintenance of content, and incentives.

### Post-Workshop Program Development and Assessment

Upon completion of the in-person workshop, Bootcamp participants will share their action plans with their Dean or Director. The plan will serve as a framework for taking action at their home institution, a resource to shape the cohort's discussions during and after Bootcamp, and as a metric for success of Bootcamp participation. Deans and Directors will be asked about their participants' progress on their plans in an assessment six months after the in-person workshop.

To support continuing engagement, the OTN will establish and host an email group for Bootcamp participants, modeled after the successful OTN community group that provides structured conversation and opportunities for librarians to support one another in a safe environment.

In order to support and track progress on their local progress, the OTN will host monthly cohort synchronous video discussions with participants and their mentors to share progress reports, reflections, and offer support in executing local action plans for six months after Bootcamp. Since this is a pilot, this will also allow mentors to gauge and respond to local issues as well as better understand the scope of action plans in relationship to the curriculum for future improvement. Mentors will be asked to reflect back on this question to the Curriculum Team and OTN leadership. These reflections will be collected via surveys for mentors and used for future curriculum development.

After the six-month period, the OTN will continue to host a Bootcamp-specific Google Group and offer individual cohorts Google Groups for their cohort at their request.

Assessment of the program's overall success will be gauged across audiences and over multiple time frames. During Bootcamp, participants must complete their action plans and share them with their supervisors. Immediately upon completion of the in-person program, Bootcamp participants will be asked to complete a survey evaluating the program as a whole and in sections, program pedagogy, and relevance of the content to their local program. Participants will be contacted again after six-months, also coinciding with the conclusion of their cohort meetings. Participants will be asked to again reflect on the value of the program with more questions on their preparedness for developing sustainable open education programming at their local institution, and identifying areas needing further addressing once they're engaged in their local situations. Participants' Deans,

Directors, or supervisors will also be contacted six months after the completion of the in-person program to assess the value of the participation for their local programming. They will be asked about the value of the action plans created by Bootcamp participants and to evaluate the progress being made.

## CURRICULUM DEVELOPMENT

While the curriculum outline (described above) was developed by OTN staff, the actual curriculum will be designed by an OER Bootcamp Curriculum Team. Curriculum Team members will share responsibilities in developing the curriculum, refining the curricular learning outcomes, and designing activities aligned to the learning outcomes. In addition, the Curriculum Team members will serve as faculty at the in-person workshop, when possible, and as mentors during the Bootcamp experience. Additional teaching faculty and mentors will be recruited as necessary. All Curriculum Team members, teaching faculty, and mentors will receive a stipend for their efforts.

Curriculum Team members will be recruited from OTN members (which represent over 10% of U.S. higher education). This network includes many expert open education leaders with knowledge and experience creating and managing successful local open education programs. Curriculum Team member selection will be based on (1) experience in open education or other open initiatives, (2) experience designing curriculum, (3) experience as a teacher/mentor, and (4) a personal statement on their vision for the Bootcamp experience and how their approach to teaching would help accomplish that vision. In addition, applicants will be asked to submit a letter of support from their supervisor, Dean, or Director.

The OTN's Steering Committee will work with OTN staff to create the specific Curriculum Team, teaching faculty, and mentor application questions and process; create a rubric for evaluating potential participants, and help select them.

Starting in January, 2017, the Curriculum Team will meet on a regular basis virtually, with a three day in-person meeting at the University of Minnesota following the OTN's annual Summer Institute and Summit. Curriculum Team members will receive a \$2,000 honorarium. Bootcamp faculty would receive a \$3,000 honorarium, plus travel, accommodations, and meals during the in-person program.

## BOOTCAMP PARTICIPANT SELECTION

The OTN will collaborate with the Association of College and Research Libraries (ACRL) to promote the Bootcamp program to potential participants. As expressed in an attached letter of support from Mary Ellen Davis, ACRL Executive Director, ACRL will provide a venue for reaching interested librarians through their extensive communications mechanism. Invitations to apply would also be posted through various library mailing lists, through social media venues, and by word of mouth from the OTN's community of librarians.

Select of Bootcamp participants will be a competitive process. The OER Bootcamp Curriculum Team will select attendees based on (1) a two page CV including areas of responsibility related to open education, (2) a letter of interest that describes what challenges they face in building an open education program and reflects on how participation in Bootcamp may help them address those challenges, (3) letters of support by their Dean, Director, or supervisor, and (4) letters of support by a

campus administrator, department chair, or campus partner that expresses a commitment to OER engagement beyond the library. While there is no question that there are many different ways librarians build programs in diverse institutional contexts, it is clear that sustainable, integrated OER programming requires partnership and collaboration across different areas of an institution.

Bootcamp Faculty will select participants based on a rubric of their design but with particular attention to the expectations laid out in their letter of interest and their institutional support. Consideration will be given to the diversity of the cohort, with an additional effort to ensure that a variety of institutional experiences and student populations are represented.

Participants will be expected to pay a fee to attend as well as cover the cost of transportation and accommodations. This pilot session would be held adjacent to the Association of College and Research Libraries' biennial conference. This allows participants to both attend the national conference and participate in Bootcamp. Our collaboration with ACRL would allow us to take advantage of their extensive hold on meeting spaces, hotels, and negotiated vendor contracts to keep attendance costs low for participants.

## EVALUATION

As noted above, the post-workshop plans include multiple points of input to collect evaluation data. Bootcamp participants will be surveyed immediately following the in-person training, and then again six months later. The second survey will coincide with a survey of each participant's Dean, Director, or supervisor. This second survey will be focused on measuring the impact that the Bootcamp experience has had on local programming through the implementation of the participants' work plans.

Following the completion of the grant, the OTN would revise the program based on the evaluation data and continue to offer the program annually. The program will be sustained by program fees charged to future Bootcamp participants.

## TIMELINE

|               |   |
|---------------|---|
| October 2017  | Project kickoff; OTN issues RFP for Curriculum Team membership  |
| December 2017 | RFP Closes; Review of applications by OTN Steering Committee begins   |
| January 2018  | Curriculum Team Announced. Initial meeting of Team; review of responsibilities and timeline for curriculum completion. Begin work on curriculum development |
| August 2018   | Curriculum Team meets in person after OTN Summer Institute; Invitation to apply to OER Librarian Bootcamp issued  |
| October 2018  | Applications close; Review of applications begin by Curriculum Team   |
| November 2018 | OER Librarian Bootcamp pilot participants announced   |
| January 2019  | Bootcamp participants begin their CC Certificate online   |
| February 2019 | Bootcamp participants receive cohort information, access to cohort  |



|                    |  |
|--------------------|--|
|                    | community, and readings  |
| March 2019         | Live facilitated online Creative Commons certificate training            |
| April 2019         | In person OER Librarian Bootcamp held adjacent to ACRL 2019 in Cleveland |
| May 2019           | First Bootcamp participant assessment                                    |
| May-September 2019 | Monthly mentorship virtual meetings                                      |
| September 2019     | Second Bootcamp participant assessment; Dean / Directors Assessment      |
| October 2019       | Grant closes   |

## BUDGET

This grant request is for \$247,912 from IMLS for this project.

|   |                  |
|---|------------------|
| Salaries and benefits for program staff | \$106,554        |
| Travel (dissemination)                  | \$26,000         |
| Workshop expenses                       | \$23,400         |
| Micro-credentialing                     | \$6,445          |
| Professional services (Curriculum Team) | \$24,000         |
| Indirect costs (33%)                    | \$61,513         |
| <b>TOTAL</b>                            | <b>\$247,912</b> |

See the attached budget justification for details on the resources needed for this program. At the conclusion of this grant, the OTN will continue to offer the Bootcamp annually, funded by program fees paid by participants.

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 long-standing, well-regarded professional development programs over the last 15 year. Sarah Cohen, OTN's Managing Director, is also an accomplished education and will guide this program's development.

### Diversity Plan

It's the most vulnerable students who are often hit hardest by the high cost of textbooks<sup>8</sup>. It's clear that high costs negatively impact all students' academic success, but it's especially true for students who are already financially vulnerable, such as first generation students. The OER Bootcamp will ultimately benefit these students by increasing OER use on campuses. Local OER programs will improve strategies for supporting open textbook editing and creation, leading to increased textbook availability across disciplines. In turn, faculty will remove barriers for their students so that they can focus on learning and graduating.

<sup>8</sup> <http://www.studentpirgs.org/sites/student/files/reports/National%20-%20COVERING%20THE%20COST.pdf>

The OTN's membership includes public, private, two year and four year, research and teaching institutions throughout the country. Together they serve a diverse population of students and faculty, and time will be spent throughout the fellowship focusing on how to adapt outreach and programs to best meet the needs of diverse communities. In addition, the OTN wants to ensure that a variety of institutions and student populations are represented the Curriculum Team to ensure that the needs of students at all types of institutions are considered. Consideration will also be given to the diversity of the Bootcamp participants, to ensure a broad range of experiences and identities are reflected in the group.

Through the OER Bootcamp program, participant librarians are required to consider the unique needs on their campuses. In addition, the OTN has a steering committee that represents diverse institutions. The steering committee meets monthly and will be continually involved in the planning and implementation of this program to ensure that the all members' needs are met.

In addition, the week-long intensive workshop includes time dedicated to exploring and establishing partnerships with different constituencies on campus, including student groups. This way, students can add direct and significant contributions when appropriate, including communication strategies and outreach channels for engaging the student community in dialogues about open education. By including the student voice, we allow students who are obviously concerned with controlling their costs and have a stake in the conversation to participate in affecting change locally.

### **National Impact**

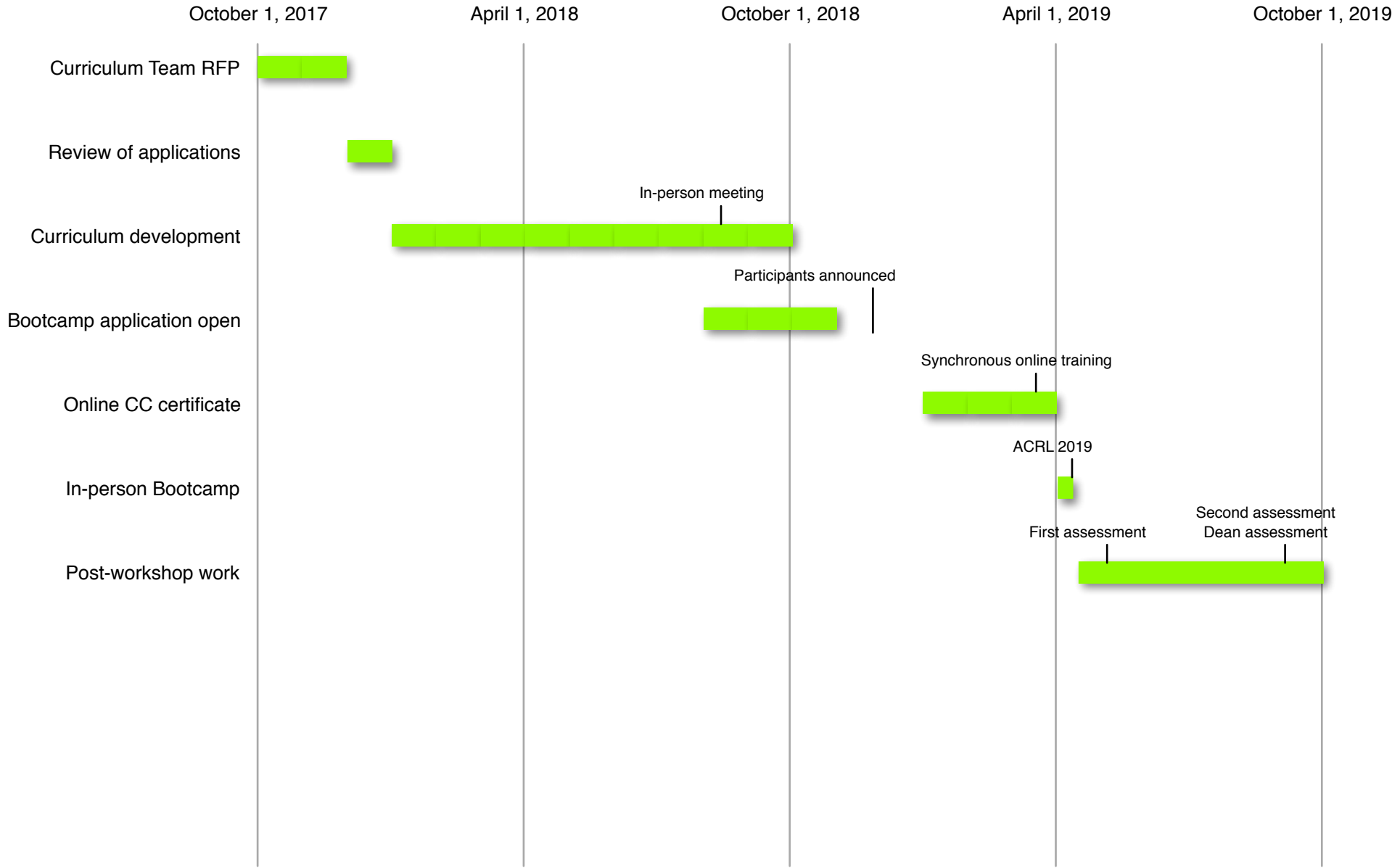
For libraries to move open education forward, we need skilled librarians making open education programmatic. There is currently no comprehensive program that prepares librarians for this work. The OER Bootcamp is designed to help librarians build skills and abilities to create or improve local open education programs.

Not only will we impact local programming, but we will enlarge the pool of expertise within academic libraries nationally, making it easier for programs to begin, grow, and mature. The future of open education depends on the ability of libraries to make it programmatic, and that requires expertise in both open education and in strategies that lead to successful, results-driven programming.

All Bootcamp training materials will be licensed with a Creative Commons Attribution 4.0 (CC BY) license for reuse and adaptation by others in the field. This means that it will be openly available online for others to use as-is or change as they see fit for their local institution. There will be a community of contributors who can continue to iterate on the educational content, and ensure that it stays up-to-date and customized to their local student and faculty community. The long-term potential benefit of this work is extensive with the potential to affect library programming, faculty awareness, and action nationwide. In turn, of course, students and faculty will be exposed to greater awareness of open textbooks, leading to more OER adoptions.

The OTN is ideally situated to make this project successful because of the ongoing willingness of OTN members to collaborate with each other and with OTN leadership.

# Schedule of Completion



## DIGITAL PRODUCT FORM

### Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (i.e., digital content, resources, assets, software, and datasets). The products you create with IMLS funding require careful stewardship to protect and enhance their value, and they should be freely and readily available for use and re-use by libraries, archives, museums, and the public. However, applying these principles to the development and management of digital products can be challenging. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and practices that could become quickly outdated. Instead, we ask that you answer questions that address specific aspects of creating and managing digital products. Like all components of your IMLS application, your answers will be used by IMLS staff and by expert peer reviewers to evaluate your application, and they will be important in determining whether your project will be funded.

### Instructions

You must provide answers to the questions in Part I. In addition, you must also complete at least one of the subsequent sections. If you intend to create or collect digital content, resources, or assets, complete Part II. If you intend to develop software, complete Part III. If you intend to create a dataset, complete Part IV.

## PART I: Intellectual Property Rights and Permissions

**A.1** What will be the intellectual property status of the digital products (content, resources, assets, software, or datasets) you intend to create? Who will hold the copyright(s)? How will you explain property rights and permissions to potential users (for example, by assigning a non-restrictive license such as BSD, GNU, MIT, or Creative Commons to the product)? Explain and justify your licensing selections.

The copyright will be held by the Open Textbook Network (OTN). The OTN wants higher education institutions (and others) to gain the most benefit from the work funded by this grant. The OTN will apply a Creative Commons Attribution 4.0 International license (CC BY) to the digital assets created from funding from this grant. This license is the most permissive Creative Commons license, allowing all higher education institutions to copy, redistribute, use, and remix the OTN's work.

**A.2** What ownership rights will your organization assert over the new digital products and what conditions will you impose on access and use? Explain and justify any terms of access and conditions of use and detail how you will notify potential users about relevant terms or conditions.

The digital products will be posted on the Open Textbook Network's website with a clear indication of the Creative Commons Attribution 4.0 International license (CC BY). The OTN will also promote the materials through media, social media, and mailing lists.

**A.3** If you will create any products that may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities, describe the issues and how you plan to address them.

None

## Part II: Projects Creating or Collecting Digital Content, Resources, or Assets

### A. Creating or Collecting New Digital Content, Resources, or Assets

**A.1** Describe the digital content, resources, or assets you will create or collect, the quantities of each type, and format you will use.

Curriculum for the Bootcamp may be developed digitally. Quantity and format are still to be determined, but will most likely be distributed as PDF to allow for maximum use.

**A.2** List the equipment, software, and supplies that you will use to create the content, resources, or assets, or the name of the service provider that will perform the work.

These documents will be simple word processing documents created in Microsoft Word or other document creation

applications.

**A.3** List all the digital file formats (e.g., XML, TIFF, MPEG) you plan to use, along with the relevant information about the appropriate quality standards (e.g., resolution, sampling rate, or pixel dimensions).

Microsoft Word, PDF

## **B. Workflow and Asset Maintenance/Preservation**

**B.1** Describe your quality control plan (i.e., how you will monitor and evaluate your workflow and products).

**B.2** Describe your plan for preserving and maintaining digital assets during and after the award period of performance. Your plan may address storage systems, shared repositories, technical documentation, migration planning, and commitment of organizational funding for these purposes. Please note: You may charge the federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the federal award (see 2 C.F.R. § 200.461).

Digital assets will be maintained by the University of Minnesota. The University of Minnesota manages the technical documentation, migration planning and is committed to maintaining this archive for many varied projects as general teaching and research infrastructure.

## **C. Metadata**

**C.1** Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata. Specify which standards you will use for the metadata structure (e.g., MARC, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

Metadata will not be created.

**C.2** Explain your strategy for preserving and maintaining metadata created or collected during and after the award period of performance.

Metadata will not be created.

**C.3** Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of the digital content, resources, or assets created during your project (e.g., an API [Application Programming Interface], contributions to a digital platform, or other ways you might enable batch queries and retrieval of metadata).

Metadata will not be created.

## **D. Access and Use**

**D.1** Describe how you will make the digital content, resources, or assets available to the public. Include details such as the delivery strategy (e.g., openly available online, available to specified audiences) and underlying hardware/software platforms and infrastructure (e.g., specific digital repository software or leased services, accessibility via standard web browsers, requirements for special software tools in order to use the content).

Documents will be posted on the Open Textbook Network website for members, and available to the public upon request. The documents will be accessible via standard web browsers, or via email.

**D.2** Provide the name(s) and URL(s) (Uniform Resource Locator) for any examples of previous digital content, resources, or assets your organization has created.

GUIDEBOOK TO RESEARCH ON OPEN EDUCATIONAL RESOURCES ADOPTION  
MODIFYING AN OPEN TEXTBOOK: WHAT YOU NEED TO KNOW

## **Part III. Projects Developing Software**

### **A. General Information**

**A.1** Describe the software you intend to create, including a summary of the major functions it will perform and the intended primary audience(s) it will serve.

Not applicable.

**A.2** List other existing software that wholly or partially performs the same functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

Not applicable.

### **B. Technical Information**

**B.1** List the programming languages, platforms, software, or other applications you will use to create your software and explain why you chose them.

Not applicable.

**B.2** Describe how the software you intend to create will extend or interoperate with relevant existing software.

Not applicable.

**B.3** Describe any underlying additional software or system dependencies necessary to run the software you intend to create.

Not applicable.

**B.4** Describe the processes you will use for development, documentation, and for maintaining and updating documentation for users of the software.

Not applicable.

**B.5** Provide the name(s) and URL(s) for examples of any previous software your organization has created.

Not applicable.

### **C. Access and Use**

**C.1** We expect applicants seeking federal funds for software to develop and release these products under open-source licenses to maximize access and promote reuse. What ownership rights will your organization assert over the software you intend to create, and what conditions will you impose on its access and use? Identify and explain the license under which you will release source code for the software you develop (e.g., BSD, GNU, or MIT software licenses). Explain and justify any prohibitive terms or conditions of use or access and detail how you will notify potential users about relevant terms and conditions.

Not applicable.

**C.2** Describe how you will make the software and source code available to the public and/or its intended users.

Not applicable.

**C.3** Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository: Not applicable.

URL: Not applicable.

#### **Part IV: Projects Creating Datasets**

**A.1** Identify the type of data you plan to collect or generate, and the purpose or intended use to which you expect it to be put. Describe the method(s) you will use and the approximate dates or intervals at which you will collect or generate it.

Not applicable.

**A.2** Does the proposed data collection or research activity require approval by any internal review panel or institutional review board (IRB)? If so, has the proposed research activity been approved? If not, what is your plan for securing approval?

Not applicable.

**A.3** Will you collect any personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information? If so, detail the specific steps you will take to protect such information while you prepare the data files for public release (e.g., data anonymization, data suppression PII, or synthetic data).

Not applicable.

**A.4** If you will collect additional documentation, such as consent agreements, along with the data, describe plans for preserving the documentation and ensuring that its relationship to the collected data is maintained.

**A.5** What methods will you use to collect or generate the data? Provide details about any technical requirements or dependencies that would be necessary for understanding, retrieving, displaying, or processing the dataset(s).

Not applicable.

**A.6** What documentation (e.g., data documentation, codebooks) will you capture or create along with the dataset(s)? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the dataset(s) it describes?

Not applicable.

**A.7** What is your plan for archiving, managing, and disseminating data after the completion of the award-funded project?

Not applicable.

**A.8** Identify where you will deposit the dataset(s):

Name of repository: Not applicable.

URL: Not applicable.

**A.9** When and how frequently will you review this data management plan? How will the implementation be monitored?

Not applicable.