

Educopia Institute, the Library Publishing Coalition (LPC) and 12 partner libraries request \$241,510 (with an additional \$29,291 in cost share) for a two-year National Leadership Grant (Project Grant, National Digital Platform category, August 2019–July 2021) to investigate, synchronize, and model a range of workflows to increase the capacity of libraries to publish open access, peer-reviewed scholarly journals. Most library publishers have developed services in response to local needs, and initial workflows are generally home-grown, varied, and idiosyncratic. This represents a missed opportunity for comparative analysis and peer learning; it also yields frequent omissions of crucial workflow steps, such as contributing metadata to aggregators (essential for discovery and impact) and depositing content in preservation repositories (necessary for a stable scholarly record). The workflow model envisioned in this project will help libraries provide a strong alternative to commercial publishing for a wider range of journals, representing a significant advance in the development of open and academy-owned scholarship. This project will advance IMLS’s agency-level goal of “Build Capacity.”

Intended Audience: Our diverse 12 partner library cohort includes flagship, land grant, and public research universities (Wayne State and the Universities of Michigan, Pittsburgh, and Alberta); private research and liberal arts universities (Columbia, Illinois Wesleyan, Pacific, and University of Redlands); consortia representing public research universities (California Digital Library), private liberal arts colleges (Claremont Colleges), and historically black colleges and universities (Atlanta University Center). The resulting workflows will be of use to libraries of all types that are engaged in scholarly publishing. The project audience includes libraries establishing their first publishing workflows and those looking to expand or improve their publishing services.

Project Activities: We will form a cohort of libraries engaged in journal publishing and work with them to document and improve their publishing workflows. This work will be accomplished via peer learning, one-on-one interviews, and an in-person meeting. We will analyze the data gathered in these settings to identify opportunities for high-impact interventions in publishing workflows and ‘pain points’ that could be addressed in follow-on work. Deliverables for this project include: **12 visualizations** representing the journal publishing workflows of each partner library, **a workflow template and guidance documentation** for libraries seeking to map their workflows, **a free set of recorded discussions** on journal publishing workflows in libraries, **presentations at three conferences**, and **a final report** that will include lessons learned in working with the partner cohort to improve their workflows and conclusions drawn from analyzing the workflow data collected during the project, including next steps for building journal publishing capacity in libraries.

Outcomes: The project will impact our national capacity for library publishing and increase our understanding of what functions are integrated by institutions of different sizes and types. The following measurable outcomes will be achieved: 1) At least **20 total visualizations** representing library publishers’ journal publishing workflows. 2) At least **eight non-partner libraries** will use our template and guidance documentation to map their own library publishing workflows. 3) We will **strengthen relationships between library publishers and tool/service developers** and model ways to think about our work together in terms of national impact, not just in terms of individual tools and services. 4) We will **increase practitioner knowledge** of and fluency in workflow modeling and extend workflow adoption.

Summary: Educopia Institute, the Library Publishing Coalition (LPC) and 12 partner libraries request \$241,510 (with an additional \$29,291 in cost share) for a two-year National Leadership Grant (Project Grant, National Digital Platform category, August 2019–July 2021) to investigate, synchronize, and model a range of workflows to increase the capacity of libraries to publish open access, peer-reviewed scholarly journals.

1. Statement of national need

Library publishing is a burgeoning subfield within the academic publishing landscape. Over the last three decades, library publishing has coalesced around the needs of local scholars, researchers, and students who have approached the library for expertise and assistance in how best to use digital platforms to produce and disseminate knowledge.¹ It has also moved from a niche activity to a regular part of academic libraries' services to their communities. As of 2017, most of the 123 ARL member libraries were engaged in publishing activities,² and the most recent *Library Publishing Directory* includes 135 entries from libraries of all types that support a wide range of scholarly outputs. Most library publishers support electronic journals, but many also work with eBooks, web-based portals, databases, exhibits, grey literature, ETDs, and/or OERs, depending on the needs of their communities.³ They also provide authors and editors with an array of services that include consulting and teaching on publishing-related topics, assistance with rights management, and support for a range of functions across the creation, production, dissemination, and preservation of scholarly work. Academic libraries engaged in this work have demonstrated that library publishing advances the mission of the library and that it results in affordable, sustainable publishing options that are led, owned, and controlled by academic communities.

Library publishers have been steadily refining what once were largely home-grown, variable processes into maturing publishing services and programs. They have also been growing a strong professional community of practice in which they are regularly documenting their outputs (e.g., the [Library Publishing Directory](#)) and sharing knowledge and lessons learned (e.g., the [Library Publishing Forum](#)). They have also created a strong training program to help new library publishers learn from those who are already established in the field (the [Library Publishing Curriculum](#) and its associated workshops and graduate courses).

A key step in this maturation process is developing and building consensus around standard operational functions, both as individual programs and as a community of practice. Today's library publishing workflows—meaning, depictions of all of the functions performed by a library publisher as part of its regular operations—are generally undocumented. This makes cross-comparison across publishers difficult at best, leading to missed opportunities for peer learning and sharing of emerging good practices. It also makes it more challenging for individual publishers to evaluate their processes and readily identify crucial steps they may be omitting, such as contributing metadata to aggregators (essential for discovery and impact) and depositing content in preservation repositories (necessary for a stable scholarly record).

¹ Karla L. Hahn, *Research Library Publishing Services: New Options for University Publishing* (Washington, DC: Association of Research Libraries, 2008), p. 7. <https://www.arl.org/storage/documents/publications/research-library-publishing-services-mar08.pdf> (last accessed 03/11/2019).

² Laurie N. Taylor, Brian W. Keith, Chelsea Dinsmore, and Meredith Morris-Babb, *Libraries, Presses, and Publishing. SPEC Kit 357* (Washington, DC: Association of Research Libraries, November 2017), p. 2. <https://publications.arl.org/Libraries-Presses-Publishing-SPEC-Kit-357/> (last accessed 3/19/19)

³ Library Publishing Coalition Directory Committee, ed., *Library Publishing Directory 2019*. <https://librarypublishing.org/resources/#directory> (last accessed 3/19/19)

The Library Publishing Coalition (LPC) has identified workflows education and development activities among its top strategic priorities, as documented in its 2018-2023 Strategic Plan. In support of this goal, this project seeks to develop a methodology and template for recording publishing workflows at individual institutions. It will focus specifically on journal workflows as both the most common area of practice for library publishers (for example, more than 75% of the institutions represented in the 2019 *Library Publishing Directory* work with local faculty to publish journals), and as an area where workflows have been established by other types of publishers, allowing for comparison and adaptation as appropriate. It will both test and model the use of this methodology and template with 12 partners, chosen specifically to illuminate both the differences and similarities among library publishing programs in different institutional types, from small liberal arts colleges to large R1 institutions. It will help the library publishing subfield to formalize its workflows through careful documentation, analysis and comparison, and broad circulation of tested models.

The work undertaken in this project will help libraries stabilize and scale up their endeavors, which will in turn strengthen this important alternative to commercial publishing. Led by the Library Publishing Coalition and its host organization, the Educopia Institute, this work will represent a significant advance in the development of open, academy-owned, and scholar-driven publishing options.

1.1 Why Academy- and Scholar-Owned Publishing Matters

A small number of commercial publishers dominate the production and dissemination of scholarship today, and they are regularly cited for pursuing profit-maximizing goals in monopolistic ways.⁴ Large commercial players have used mergers, acquisitions, and other consolidation practices to increase their control over the entire research lifecycle, and have artificially inflated the cost of scholarship to the detriment of both academic institutions (who often cannot afford to license access to content their own scholars produce, peer review, and edit) and the general public (who cannot afford individual access to this scholarship).⁵ Commercial publishers have also largely disregarded historically underrepresented voices and emerging fields whose markets are often smaller and less profitable.⁶ These phenomena have led to a growing interest in open, academy-led publishing options.

Patience with the service offerings of established commercial publishers is wearing thin, as evidenced by recent developments, including Europe's "Plan S" and the University of California system's 2019 decision to terminate its Elsevier subscriptions contract. Based in part on these recent developments, library publishers are experiencing a steady increase in authors and editors seeking their services.

1.2 Growth in Library Publishing Demand and Capacity

⁴ See, e.g., Michael Hiltzik, "In UC's battle with the world's largest scientific publisher, the future of information is at stake," *LA Times* Dec 7, 2018. <https://www.latimes.com/business/hiltzik/la-fi-hiltzik-uc-elsevier-20181207-story.html> (last accessed 03/18/2019).

⁵ As SPARC Executive Director Heather Joseph recently stated, "As we've experienced firsthand, the consolidation in the academic journal market has led to unaffordable costs, limited utility of research articles, the proliferation of Western publishing biases, and a system by which publisher lock-in of content through big deal licenses is the norm. This situation is damaging for the research enterprise, individual researchers, and for society." Heather Joseph, "Securing community-controlled infrastructure: SPARC's plan of action," *College & Research Libraries News*, [S.l.] Vol. 79, No. 8 (Sep. 2018), p. 426. <https://crln.acrl.org/index.php/crlnews/article/view/17246/18986; doi:https://doi.org/10.5860/crln.79.8.426> (last accessed 03/11/2019).

⁶ Harrison Inefuku and Charlotte Roh, "Agents of Diversity and Social Justice: Librarians and Scholarly Communication," in *Open Access and the Future of Scholarly Communication: Policy and Infrastructure*, ed. Kevin Smith and Katherine A. Dickson (Rowman and Littlefield, 2016). <https://repository.usfca.edu/librarian/8/> (last accessed 03/18/2019).

This year's *Library Publishing Directory* demonstrates conclusively that publishing as an official function of the library is expanding year over year.⁷ In 2019, respondents reported that they produced 512 faculty-driven journals (compared to 442 in 2018), 293 student-driven journals (compared to 224 in 2018), and 259 journals published for external groups (compared to 173 in 2018). Monograph and textbook publishing exploded in 2019, with 1,562 books published in 2019 (compared to 488 in 2018) and 98 textbooks published in 2019 (compared to 34 in 2018). This data shows a dramatic increase in library publishing output.

Platforms, technologies, and tools supporting library publishing are expanding to support this work. In spring 2018, the Library Publishing Forum included a one-day preconference to showcase emerging open source publishing platforms developed by project teams recently funded by the Andrew W. Mellon Foundation, IMLS, and the Alfred P. Sloan Foundation. There, tools and environments including Vega, Fulcrum, Editoria, Janeway, and Manifold were examined alongside established options like Open Journal Systems. Attendees and presenters acknowledged that the utility of these tools to increase capacity and help library publishers scale up and improve their services will be limited if their developers lack a robust understanding of library publishing workflows.

The LPC community has also identified workflow development as a key component needed in the professionalization of library publishing. While a focus on core services, responsiveness to local needs, and experimentation are all assets for this publishing subfield,⁸ they can result in a lack of attention to standards and best practices. The bootstrapped nature of many library publishing programs—accomplishing a lot with little support or formal training—also contributes to this phenomenon. By mapping out and comparing journal workflows, the community of library publishers can identify places where relevant standards and best practices exist and can be adopted. They can also pinpoint areas where best practices have not yet been developed, and work together to develop them efficiently and effectively.

As the project team collaborates to develop these workflows, we will pay particular attention to the way that different workflow diagram methods may help to illuminate functional workflows for library publishers. As Springer and Cooper have pointed out, the vantage point a diagram or workflow prioritizes is a key concern, and we will experiment with several methods during the initial phases of our project work to ensure clear fit-for-purpose.⁹

1.3 Previous Work

This project will engage directly with two previous IMLS-funded projects undertaken by Educopia, the OSSArcFlow research project and the Library Publishing Curriculum project, as described below.

1.3.1 OSSArcFlow: Mapping Workflows to Increase Productivity

This project builds directly on the work of the Open Source Software Archival Workflows (OSSArcFlow) project (2017-2020), undertaken by Educopia in collaboration with the UNC-CH School of Information and Library Science, LYRASIS, and Artefactual and generously funded by IMLS

⁷ See the annual *Library Publishing Directory* publications from 2015-2019.

⁸ Melanie Schlosser, "Building Capacity for Academy-Owned Publishing through the Library Publishing Coalition," *Library Trends* Vol. 67, No. 2 (2018). https://librarypublishing.org/wp-content/uploads/2019/01/LibraryTrends_LPC_2018.pdf (last accessed 03/18/2019).

⁹ Rebecca Springer and Danielle Cooper, "Pictures Worth a Thousand Words? On Visualizations of Scholarly Workflow," *Scholarly Kitchen*, March 14, 2019. <https://scholarlykitchen.sspnet.org/2019/03/14/guest-post-pictures-worth-a-thousand-words-on-visualizations-of-scholarly-workflow/> (last accessed 03/18/2019).

(LG-7117-0016-17). This project has investigated and synchronized workflows across a range of open source software (OSS) platforms used to curate born-digital content. The project team has worked with 12 institutions, ranging from R1 university libraries (e.g., MIT) to liberal arts colleges (e.g., Mt. Holyoke), and from historical societies (e.g., Kansas Historical Society) to public and private libraries (DC Public Library, NYPL). With this diverse set of players, the project has designed, documented, and published born-digital workflows, synthesizing the steps, tools, roles, systems, and sequences of events involved in this archiving work. The project team has also compared and contrasted these workflows in order to understand what key technical and human drivers impact the different ways that these organizations choose to synchronize their local operations.

The larger museum, library, and archives response to this work has been rapid and effusive—the project webpage has already garnered over 5,000 pageviews since it was launched in early 2017, and the project has nearly three hundred subscribers to a quarterly newsletter. It also has a robust and impactful social media presence via the Educopia Institute Twitter account and the #OSSArcFlow hashtag. Dozens of institutions have requested to use the project’s workflows template and guidance documentation for their local workflow mapping initiatives. The project team is currently finalizing its work, and will release training modules, how-to guides, and an expanded set of workflow examples, along with a finalized workflow template, by December 2020.

Among the project’s most important findings is how deeply sociotechnical and human factors influence each individual institution’s workflow implementation processes. Several forthcoming articles highlight the range of obstacles (resource shortages, lack of system understanding, missing workflow steps) and catalysts (IT support, low overhead, high individual knowledge and preparation) that impact and shape institutional workflows. These articles also probe the ways that institutions begin learning from one another once they have comparable diagrams depicting their local practices. These diagrams are already being used by our partners to help inform administrators, to identify missing elements and missed opportunities for metadata handoffs and other exchanges, and to shed light on the gaps and overlaps within the tools and functions of born-digital archiving.

The project has also inspired the BitCurator Consortium (a hosted community of Educopia) to work with all of its members to document their workflows because of the significant advances they have seen the project team institutions make in their born-digital curation activities as a direct result of creating and analyzing these workflow visualizations.

The co-PI for the current application has served as the lead PI for the OSSArcFlow grant (Skinner), and Hannah Ballard served as its Communications Coordinator, implementing a variety of methods and mechanisms for communicating workflows with the broader library landscape. Kari Smith (MIT) also served as an Advisor in OSSArcFlow, and will help to bring the methodologies, workflow expertise, and research findings of this successful born-digital archiving workflow project to bear on the current proposed project. In addition, one of the partner institutions for OSSArcFlow (Atlanta University Center) is also participating in this project, which is both a testament to the utility of the approach and an additional source of continuity for the project.

1.3.2 Developing a Curriculum to Advance Library-Based Publishing

This project will also build upon both the findings and the outputs of the Developing a Curriculum to Advance Library Publishing project (IMLS RE-40-16-0150-16), which has created and piloted a rich suite of

synchronous and asynchronous professional development offerings for library publishers, and is now integrating the resulting curriculum into the Library Publishing Coalition's ongoing programmatic activities.

The project (which will be fully completed in June 2019) has produced four rich modules: Content, Impact, Policy, and Sustainability. Each module includes approximately 16 hours of material, including a narrative, bibliography, worksheets and activities, lecture materials, and assignments. The Library Publishing Coalition is now forming an Editorial Board that will take responsibility for stewarding this content, including refreshing units as they become dated and identifying new topics that need to be covered.

Publishing workflows have been a central concern of this project. We first discussed workflow mapping during our author retreat, where under the facilitation guidance of Nancy Maron, the curriculum authors struggled to define a cross-cutting workflow that encompassed the core activities in which library publishers typically engage and that the curriculum would need to address. We quickly realized that digitally oriented library publishing workflows are very different from heavily print-based university press workflows, and that we lack standard ways of describing or naming many of the digital functions we undertake today. We also recognized that cultivating a shared vocabulary and lexicon of library publishing activities had to go hand in hand with careful analysis and documentation of real-world settings.

1.3.3 Applying Lessons Learned to the Current Project

The PIs of this project have discussed at length the OSSArcFlow project findings' relevance to this library publishing challenge. We have discerned the need for a rigorous discovery and documentation process within library publishing units to better understand the range and form that activities take, not focusing primarily on the *tools* (many of which are in an early phase of development and application) but rather on the *functions* embedded in these units.

The current proposal draws upon lessons learned from both of these projects to inform its design, activities, desired outputs and outcomes, as well as its communications plan. Like OSSArcFlow, we have deliberately chosen a broad range of institutional types and sizes. Also like OSSArcFlow, we explicitly see the aim of this project not as a development of a "one size fits most" single ideal workflow, but rather as an attempt to surface and illuminate both the similarities and differences in workflow development at different institutions—including the key drivers that influence local choices. Based on the quick and enthusiastic response OSSArcFlow's template and examples have received from the born-digital archiving community, as well as the rapid maturation processes the workflow project has inspired among its partners, we plan to build similar tools and models specific to the needs of library publishers.

The Library Publishing Curriculum project was inspired by our awareness of the small-scale and one-off professional development that was already happening in this space (for example, through LPC webinars and Forum presentations). It began with a systematic investigation of the educational needs of both professionals and students, and developed an in-depth curriculum to satisfy them. This project will mirror this structure, building upon the informal workflow sharing currently underway on listservs and through conference presentations. This project will systematically explore what those workflows look like, what key drivers influence them, what elements are managed in-house vs. outsourced, and where pain points, inefficiencies, and gaps typically occur.

We also learned in the Curriculum project just how quickly the field and its processes, policies, and procedures continue to develop. Rather than simply "looking backwards" at the ways that library publishers

have structured their workflows and documenting those, we will be probing the changes underway now and that can be anticipated in the near future (e.g., post-publication peer review). As these still-emerging processes become more common, how will library publishing workflows encompass and account for them? We will study this question carefully during the project and build guidance for ongoing evaluation and updating of workflows. An initial survey of our partner institutions has shown that most are planning changes to their platforms and/or their journal workflows over the project period,¹⁰ giving us opportunities to observe and document how workflows evolve. Finally, like the Curriculum project, this proposed project will rely on its close relationship with the Library Publishing Coalition and its strategic plan to guide the outputs we produce and the way we circulate those to the ever-broadening circle of libraries involved in publishing activities.

2. Project design

Led by Melanie Schlosser and Dr. Katherine Skinner, advised by three field experts and in partnership with 12 academic libraries and library consortia, this two-year project will investigate, synchronize, and model a range of workflows to increase the capacity of libraries to publish open access, peer-reviewed scholarly journals.

2.1 Project Activities and Plan of Work

This project will occur over 5 phases: 1) planning and formative assessment, 2) initial interviews with partner libraries and initial data analysis, 3) initial workflow documentation and in-person meeting, 4) final partner interviews and full workflow documentation, and 5) release, evaluation, and reporting.

Phase 1: Planning and formative assessment: During the planning and setup phase, we will hire the project manager and establish the regular meeting schedule and in-person meeting dates. We will create a communications plan and campaign map; design a visual identity for the project for use across communications channels; and establish ongoing structures to communicate project results, including an email list for news, web landing page, social media presence, and a new series on the Library Publishing Coalition's blog. We will also undertake a formative assessment of existing workflow documentation models, including the workflow diagrams from the OSSArcFlow project. This assessment work will inform the development of interview schedules and data collection instruments, as well as the development of documentation templates in phase 3. We will begin scheduling the first round of partner interviews, and we will begin outreach to strategic affiliates, including tool and service developers and university presses.

Phase 2: Initial interviews with partner libraries and initial data analysis: During the second phase, we will conduct a set of individual interviews with each partner library to document their existing journal publishing workflows. These interviews will not only capture descriptive information about current workflows, but also provide preliminary identification of workflow pain points and any planned workflow changes during the project period. We will also begin to analyze and use the data to plan: 1) workflow refinement by partner libraries, 2) workflow documentation templates, and 3) interview schedules for a final round of interviews.

Phase 3: Initial workflow documentation and in-person meeting: During this phase, we will begin documenting the partners' journal publishing workflows based on the data collected during the first phase of interviews. This documentation will happen through an iterative process (in this phase and the next), with partners actively participating in each stage. The first stage of the process will involve developing workflow

¹⁰ See one of the appendices to this application, "Initial Partner Survey Data".

documentation templates, informed by the formative assessment in Phase 1 and the data analysis in Phase 2. The second stage will involve creating draft workflow documentation for a subset of the partners for review and discussion by the full group. During Phase 3, we will also convene the partners and advisory board members for an in-person meeting in Detroit, MI (hosted by partner institution Wayne State University). The meeting will consist of a mix of recorded panel sessions (to be shared with the wider community) and working sessions.

Phase 4: Final partner interviews and full workflow documentation: During this phase, we will conduct final interviews with all partners, covering additional data needs identified during the formative project assessment and any changes to the partners' workflows that have been implemented during the course of the project. We will also complete and finalize workflow documentation for all partners based on their feedback. Video recordings and other public outputs from the in-person meeting will be released during this phase, and project staff will undertake a multi-channel communications campaign that highlights these outputs, project progress, partner contributions, and next steps. We will work closely with tool developers and other stakeholders to consider various ways the workflow documentation may be used now and in the future.

Phase 5: Release, evaluation, and reporting: In this final phase, all workflow documentation will be released with a CC-BY license to encourage sharing and reuse, and we will work with our project partners, the Library Publishing Coalition, tool and service providers, and other community partners to disseminate it widely. At this time, we will also finalize and release a template version of our workflow documentation and guidance documentation for libraries that wish to map their own workflows. We will also undertake two types of summative project evaluation: 1) an evaluation of the success of the project, and 2) a deeper analysis of the data gathered for implications for future work. The results of this analysis will be shared with the community via publications and/or presentations coupled with a strategic communications campaign that draws on partner and staff reflections to highlight accomplishments, lessons learned, and future uses of project outputs.

2.2 Budget, Timeline, and Personnel

The two-year project will begin in August 2019 and end by July 2021. The project budget requested is \$241,510, with an additional \$29,291 in cost share. This includes a) travel expenses for partners and staff for an in-person meeting in Detroit, MI; b) salary and benefits for personnel including PIs, project manager, communications, and administrative staffing; c) materials and supplies necessary for the project's success. Additional personnel committing effort to this project include our Partner library cohort (12 representatives) and our external advisory board members (3 members). This project brings together a project team of seasoned experts, both in library publishing and in research and development, as described below.

2.2.1 Key personnel

Melanie Schlosser (Scholarly Communications Program Leader, Educopia Institute and Community Facilitator, Library Publishing Coalition) will act as principal investigator and overall coordinator for the project. Schlosser has served as co-principal investigator on two funded projects, including the IMLS-funded Developing a Curriculum to Advance Library-Based Publishing project. She received her MLS from Indiana University and worked as a faculty librarian at Ohio State University. As LPC's Community Facilitator, Schlosser supports LPC's membership in all of the organization's activities.

Dr. Katherine Skinner (Executive Director, Educopia Institute and Adjunct Professor) will act as co-principal investigator. Skinner has served as PI for grants and contracts totaling more than \$2.5M, including a broad

range of cross-sector initiatives in digital preservation, scholarly communication, and continuing education across libraries, publishers, archives, and museums. She has substantial expertise in managing collaborative projects involving a broad range of partner types and an established reputation for empowering project teams (see, e.g., Nexus: LAB and Mapping the Landscapes, two large-scale, cross sector education projects undertaken between 2014-2016). She will ensure the project and its deliverables adhere to open access and community frameworks, and that they are both built and sustained by a range of committed partners.

Hannah Ballard (Communications Manager, Educopia Institute) will assist with communications strategy and major communications activities for the project.

Administrative and project management support: Educopia's Administrative Coordinator will provide administrative support for the project, and a dedicated Project Manager will be hired to ensure that project activities are carried out effectively and on time.

2.2.2 Other personnel

Partner library cohort: A representative of each partner library will attend regular and special project meetings and participate in interviews and other activities related to mapping their unique publishing workflow. Those representatives are: Peter Potter (Virginia Tech), Joshua Neds-Fox (Wayne State University), Jason Colman (University of Michigan), Justin Gonder (California Digital Library), Vanessa Gabler (University of Pittsburgh), Sonya Betz (University of Alberta), Jennifer Beamer (Claremont Colleges), Nicky Agate (Columbia University), Stephanie Davis-Kahl (Illinois Wesleyan University), Johanna Meetz (Pacific University), Paige Mann (University of Redlands), and Josh Hogan (Atlanta University Center).

Additional advisory board members: To complement the expertise in our partner cohort, we have invited three additional advisory board members to attend project meetings and advise project activities: Cheryl Ball (Wayne State University), Rachel Frick (OCLC Research), and Kari Smith (MIT).

2.2 Sharing project results

Ongoing communications: This project will have an active and ongoing communications component, including a communications plan and several strategic campaigns that will mark key moments in the project's trajectory and disseminate those accomplishments outward. Drawing on the expertise of Educopia's Communications Manager (Ballard) and the robust communications platforms developed by the Library Publishing Coalition, we will regularly share news, commentary, and requests for feedback with the wider library publishing community. The LPC has an active blog that regularly publishes community news and reflections. We will establish a new series of posts for this project, and at least every other month during the grant period, we will publish an update, a reflection by project staff or partners, or a prompt for feedback from and discussion by the community. LPC also has a community listserv and a public news list that, combined, reach over 500 people interested in library publishing. LPC is also active on Twitter with nearly 2,000 followers and an average of 36,000 monthly interactions (impressions) in 2018. We will share major announcements across these channels, and include a regular feature on the project in LPC's Quarterly Update newsletter. Educopia's communications channels will be used to amplify these communications when appropriate.

Dissemination of workflows: One of the major deliverables of the project will, of course, be the documented journal publishing workflows. In addition to LPC's own distribution outlets, we will be able to draw on its strategic affiliate organizations to help disseminate the workflows. LPC's affiliates include publishing industry associations, such as the Association of University Presses, the Society for Scholarly Publishing, and the Open Access Scholarly Publishers Association; library associations with an interest in scholarly communications, such as SPARC, the Coalition for Networked Information, and NASIG; and organizations deeply engaged in supporting scholarly publishing, such as the Public Knowledge Project and the Directory of Open Access Journals. Each of these organizations has its own community of members and supporters, many of whom are engaged in journal publishing or supporting it in some way.

Dissemination of applied research results: Our preliminary investigations suggest that there are common pain points in library journal publishing workflows (especially related to communications and production), and critical steps frequently omitted (especially those related to discovery and preservation). We expect this project to result in a rich set of data about these issues that can be used to inform the development of learning opportunities (such as additions to the Library Publishing Curriculum) and services to support library publishers. With the support of the formative and summative evaluations, we will analyze the data and report on the results, both through our ongoing communications structures for the project (see above), and through more formal writing and/or presenting.

3. Diversity plan

Structural inequalities in the broader society are unfortunately alive and well in traditional academic publishing. As noted by Charlotte Roh, Emily Drabinski, and Harrison Inefuku in 2015, “countless studies and personal narratives have demonstrated that cultural, racial, and gender bias influence important aspects of academia, including traditional book and journal publishing”.¹¹ These biases include inequities in both who authors and who publishes and disseminates these works. Library publishing has received attention for its potential to address these inequities through a focus on open access publishing, an emphasis on publishing by and for more diverse voices, and support for publishing underrepresented disciplines and groups. In 2018, the Library Publishing Coalition released version 1.0 of *An Ethical Framework for Library Publishing*, which includes guidance for library publishers in a number of ethical areas, including supporting diversity and inclusion through their publishing work.¹²

Rather than seeking to develop a single, ‘perfect’ workflow that every library should use, this project draws on a variety of partner institutions to document publishing workflows that reflect their unique local circumstances. Our diverse 12-partner library cohort includes flagship, land grant, and public research universities; private research and liberal arts universities; and consortia representing public research universities, private liberal arts colleges, and historically black colleges and universities. The resulting documentation will support publishing activities in a wide range of academic and research libraries that can adopt, adapt, and build on the documented workflows.

¹¹ Charlotte Roh, Emily Drabinski, and Harrison Inefuku, “Librarian Engagement and Social Justice in Publishing” (presentation, Library Publishing Forum 2016, Denton, TX, May 18, 2016). <http://works.bepress.com/charlotteroh/27/>

¹² Library Publishing Coalition Ethical Framework Task Force, *An Ethical Framework for Library Publishing*, Version 1.0 (Atlanta, GA: Educopia, 2018). <http://dx.doi.org/10.5703/1288284316777>.

4. National impact

This project will increase the number, quality, and impact of publications produced in libraries by modeling effective journal workflows in institutions of different sizes and types. The cohort-oriented research will broaden field-wide understanding of best practices in library journal publishing and highlight areas where new resources are needed. Project findings will support diverse libraries that are publishing or considering publishing academic content. More broadly, the resources that will allow libraries to more quickly learn from each other will also benefit other types of academy-owned publishing, including new-model journal publishing emerging within university presses and independent, scholar-led journals. We expect to release formal workflow models, templates and guidance to assist others in documenting their workflows, and empirical findings regarding the sociotechnical drivers and factors that influence the development of publishing workflows.

At a time when commercial publishers are seeking control of the entire research lifecycle, this scaffolding for open publishing is increasingly important and potentially transformative.

The involvement of the Library Publishing Coalition in this project will guarantee that its impacts are both deep and sustained. LPC has an excellent track record of developing and sustaining programs that benefit the community of library publishers, and it has recently taken over the stewardship of the materials produced in Library Publishing Curriculum project. We expect the workflow documentation models developed by this project to be added to LPC's impressive [list of resources](#), giving them life beyond the project term. We also expect the research done by the project team to inform future LPC strategic priorities and programming.

As its deliverables, the project will produce **12 visualizations** representing the journal publishing workflows of each partner library, **a workflow template and guidance documentation** for libraries seeking to map their workflows, **a free set of recorded discussions** on journal publishing workflows in libraries, **presentations at three conferences**, and **a final report** that will include lessons learned in working with the partner cohort to improve their workflows and conclusions drawn from analyzing the workflow data collected during the project, including next steps for building journal publishing capacity in libraries.

The following measurable outcomes will be achieved:

1. At least 20 total visualizations representing library publishers' journal publishing workflows. **Evidence:** Documentation of at least 20 journal publishing workflows.
2. At least eight non-partner libraries will use our template and guidance documentation to map their own library publishing workflows. **Evidence:** At least eight additional journal publishing workflows from non-project team members will be developed and shared with our project team.
3. We will strengthen relationships between library publishers and tool/service developers and model ways to think about our work together in terms of national impact, not just in terms of individual tools and services. **Evidence:** We will demonstrate the use of the workflows documentation and analysis by at least four library publishing tool/service developers to guide their development work.
4. We will increase practitioner knowledge of and fluency in workflow modeling and extend workflow adoption. **Evidence:** Use of the recorded discussions on journal publishing workflows, the workflow template, and the guidance documentation we prepare by at least 15 additional institutions in the two years following the grant.

Educopia Institute, Library Publishing Workflows							2021
	Jan	Feb	Mar	Apr	May	June	July
Phase 1: Planning and formative assessment							
Schedule regular project team meetings, monthly project meetings with partners and advisors, and in-person meeting							
Establish email list for project news and regular blog post series; create communications plan and campaign map for duration of project; design project identity and create brand assets for presentations, graphics, publications, etc.; create web presence for project							
Hire project manager							
Formative assessment of workflow documentation models							
Create interview schedules and workflow data collection instruments							
Schedule first round of partner interviews							
Plan in-person meeting including livestream and/or recording, social media presence							
Outreach to strategic affiliates for the project, including university presses and tool and service developers (e.g., Fulcrum, xPub/Coko, OJS, Vega, Janeway, etc.)							
Phase 2: Initial interviews with partner libraries and initial data analysis							
Conduct initial interview with each partner library about their publishing workflow							
Begin data analysis of workflow data							
Launch initial communications info-campaign							
Phase 3: Initial workflow documentation and in-person meeting							
Develop workflow documentation templates							
Create draft workflow documentation							
In-person meeting in Detroit							
Schedule second round of partner interviews							
Phase 4: Final partner interviews and full workflow documentation							
Release video and other public outputs from in-person meeting; undertake multi-channel communications campaign around in-person meeting outputs and next steps							
Complete remaining draft workflow documentation							
Conduct final interview with each partner library about their publishing workflow							
Solicit feedback from partners on draft workflow documentation							
Finalize workflow documentation based on feedback and final interviews; design documentation for public release							
Phase 5: Release, evaluation, and reporting							
Release workflow documentation publicly; undertake multi-channel communications campaign around public release of workflow documentation							
Summative evaluation of project							
Summative evaluation of data collected							
Final reporting and sharing of results; undertake an end-of-project communications campaign that recaps resources created, draws on partner and staff reflections to highlight lessons learned, and outlines how this project and its resources will be used in the future.							



DIGITAL PRODUCT FORM

Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (e.g., 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. 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

All applications must include a Digital Product Form.

- Please check here if you have reviewed Parts I, II, III, and IV below and you have determined that your proposal does NOT involve the creation of digital products (i.e., digital content, resources, assets, software, or datasets). You must still submit this Digital Product Form with your proposal even if you check this box, because this Digital Product Form is a Required Document.

If you ARE creating digital products, 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.

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.

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.

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 the format(s) you will 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.

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).

B. Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan. How will you 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).

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).

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

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).

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).

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.

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.

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.

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.

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

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

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

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

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.

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

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

Name of publicly accessible source code repository:

URL:

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.

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?

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).

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).

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?

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

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

Name of repository:

URL:

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