

Digital Stewardship Training Courses for TALMs and Small Public Libraries

In partnership with Washington State University, OCLC respectfully requests \$249,743 toward an 18-month Laura Bush 21st Century Librarian project grant to create a set of self-paced courses and accompanying facilitation guides based on the Tribal Digital Stewardship Cohort Program and related open educational resources developed by Washington State University's Center for Digital Scholarship and Curation. The resulting 13 hours of continuing education courses will be freely and broadly accessible to tribal archive, library, and museum staff and staff at small public libraries through OCLC's WebJunction platform and the Sustainable Heritage Network.

Statement of Broad Need

The library and archives field suffers from a lack of diversity. In particular, only .16% of the profession is made up of Native Americans and Alaska Natives. Tribal libraries, archives, and museums (TALMs) have been underserved by traditional academic educational models that foreground MLIS programs and time-consuming, expensive professional development models offered through conferences and/or weekend and weeklong trainings at universities. One of the most pressing concerns for tribal librarians, archivists, and museum specialists is managing, preserving, and caring for the large amounts of and diverse cultural heritage materials in their holdings.

The 2012 report from the Association of Tribal Archives, Libraries, and Museums, *[Sustaining Indigenous Culture: The Structure, Activities and Needs of Tribal Archives, Libraries, and Museums](#)*, aggregated information from TALMs across the country and identified key needs: "Increasingly, digitization is industry-standard work. Yet more than half of responding TALMs do not digitize any materials, and many more need funding, equipment, staff time, and expertise to engage appropriately in digitization. As efforts progress, TALMs also may need assistance with digital policy making and planning in order to ensure appropriate control of cultural patrimony."¹ It is evident from the ATALM report that not just digitization, but having a digital *strategy* to manage and care for collections, is an unmet priority area for most TALMs.

This project aims to provide TALMs and small public libraries across the U.S. with free online training that will extend the mission of Washington State University's original Tribal Digital Stewardship Cohort Program trainings: To serve the needs of TALM staff marginalized and/or overlooked by large-scale national projects and professional organizations that do not recognize their sovereign status, unique historical role and collections, limited resources and infrastructure, and distinct training needs. The courses will center tribal protocols, goals, and values as the starting place for building policies, workflows, and curation. Additionally, the training resources will be made widely available to staff at small public libraries throughout the U.S., many of which are in under-resourced, rural, and geographically isolated locations.

One of the greatest needs of the TALM community is continuing education and training for their staff. It is common for Native librarians, archivists, and curators to assume multiple duties within their institutions without having received formal training. While post-secondary educational opportunities for tribal members through Master's degree programs have increased, the literature shows that distance to programs, family obligations, cultural needs, and financial difficulties are obstacles to increasing Native student enrollments in traditional secondary educational settings. There is a crucial need to train existing tribal staff through tuition-free educational opportunities.

Over the past seven years and with funding from IMLS, Washington State University's Center for Digital Scholarship and Curation has offered one such opportunity to four successive learning cohorts. In total, 46 staff from 24 TALM institutions have completed the yearlong Tribal Digital Stewardship Cohort Program. This intensive learning program blends extensive in-person educational sessions with online training. In addition to

¹ See p.12, https://www.atalm.org/sites/default/files/sustaining_indigenous_culture.pdf.

designing and delivering these trainings, the Center for Digital Scholarship and Curation's Sustainable Heritage Network has both created and collected from expert sources an abundance of open educational resources for use by TALMS (e.g., curriculum, short tutorials, guides, and templates).

The training, skills and knowledge acquired from participating in the Tribal Stewardship Cohort program has been invaluable to our work in preservation, access and digitization work. Prior to the TSCP training our organization lacked ability and know-how ... We have since become models and examples for others and have served as a means for others to engage in similar work. We have also had excellent success in our community through use of the culturally responsive and inclusive approach taught through the TSCP.

– *Amelia Wilson, Huna Heritage*

While successful, the very time- and resource-intensive nature of this yearlong program from the Center for Digital Scholarship and Curation demands a capacity level that is not sustainable over the long term on its own. This continuing education initiative has reached the **scaling phase of maturity**² and is ready to extend training to more TALM learners and reach a new audience of public library staff. In collaboration with key staff from the Center for Digital Scholarship and Curation, OCLC's WebJunction program will adapt the existing open educational resources curriculum accessible via the Sustainable Heritage Network website into online instruction grounded in adult learning theory. This will enable the training to be offered to more TALM staff across the country; additionally, the WebJunction team will draw on its broad expertise and experience creating online training for public library practitioners to adapt the Center for Digital Scholarship and Curation's materials for training staff who work in small public libraries that not only face many of the same resource challenges as TALMs, but are also often physically proximate to TALMs.

Adapting and expanding the current curriculum will address an important training need documented in the IMLS-funded 2017 OCLC research report, [Advancing the National Digital Platform: The State of Digitization in US Public and State Libraries](#).³ According to that report's findings, while 92% of the public libraries surveyed reported having unique, locally significant materials, most respondents from small libraries indicated they have never digitized their collections. Among public library respondents, 61.4% identified insufficient staff training/expertise as a major barrier to their digitization efforts. This project will enrich the field by extending this important training to a new audience of public library staff.

Project Design

Project goals

This project will advance the goals of the National Digital Infrastructures and Initiatives category of the Laura Bush 21st Century Librarian program by

1. increasing the capacity of TALMs and public libraries by strengthening staff skills and knowledge of the life cycle of digital stewardship, collaborative curation, ethical stewardship of culturally sensitive collections, digitization planning, and how to work with cultural heritage professionals and tribal communities;
2. scaling access to digital stewardship continuing education to more TALM and small, rural public library staff; and
3. supporting peer mentoring and collaborative learning among TALM and public library staff.

² See *Laura Bush 21st Century Librarian Program FY 2020 Notice of Funding Opportunity*, Section A2b on project phases of maturity.

³ See <https://www.oclc.org/research/publications/2017/oclcresearch-advancing-national-digital-platform.html>.

Deliverable 1: Set of self-paced courses (September 2020–October 2021)

Drawing from the Center for Digital Scholarship and Curation's Tribal Digital Stewardship Cohort Program training and related open educational resources, the project team will produce **13 hours of self-paced online training**.

This training will cover all aspects of the digital stewardship life cycle, from the acquisition of materials (physical, digital, and born digital) to their management, preservation, circulation, and access in diverse settings. Each part of the training encourages participants to tailor their policies, procedures, workflows, tools, and other resources as appropriate, based on their specific cultural and community needs.

The courses, which will be available in the fall of 2021, will be hosted in the WebJunction Course Catalog (which runs on the learning management system known as Moodle) and the Sustainable Heritage Network portal; both websites are free for staff at any library or TALM to use, at any time.

Training outline

The proposed training will follow the existing Tribal Digital Stewardship Cohort Program structure of four modules. Each one of the four modules will contain a set of two to three courses comprised of one to four lessons. The training will incorporate learning paths addressing the cultural needs and values of TALM staff and the needs of small public library staff.

- *Module 1: **Get It*** focuses on assessing community needs, creating successful collections plans and policies (digitization, access and use, and collections) to guide all projects, the process of bringing materials (physical or digital) into one's institution, ensuring community values are upheld throughout, and designing sustainable digital projects.
- *Module 2: **Check It*** focuses on the organization and management of collections, defining and documenting workflows, technical digitization processes, quality control workflows, and the addition of metadata schemas to increase information detail and findability.
- *Module 3: **Save It*** focuses on preserving materials with the addition of cultural values, defining traditional knowledge about care and storage of physical materials, preservation documentation and technical needs, and long-term digital preservation strategies and policy planning.
- *Module 4: **Share It*** focuses on providing appropriate access to collections based on cultural protocols for viewing, sharing and circulating materials, while understanding the legalities of intellectual property and copyright and the necessity of ethical frameworks alongside traditional legal structures.

The two to three courses in each module will be separately enrollable to allow learners to choose their starting point depending on their learning needs, goals, and existing skills and experience, as well as to earn course-level certificates of completion. Upon finishing all four modules in the WebJunction Course Catalog, a learner will earn a certificate of completion for the entire digital stewardship training program.

Description of work

To create the self-paced course, the project team will adapt the existing content from the Tribal Digital Stewardship Cohort Program to create introductions for each module, course, and lesson topic. Instructional text that links existing content pieces and sets context will be added to each lesson, and short lecture videos that use both existing slide decks and new content will be created; work on the course elements will also include graphic design to create a unified style, color scheme, and consistent imagery. Learning assessments and certificates of completion will be designed, and the content and the functionality of the self-paced course will be tested before final release. Table 1 provides a proposed outline for the work plan.

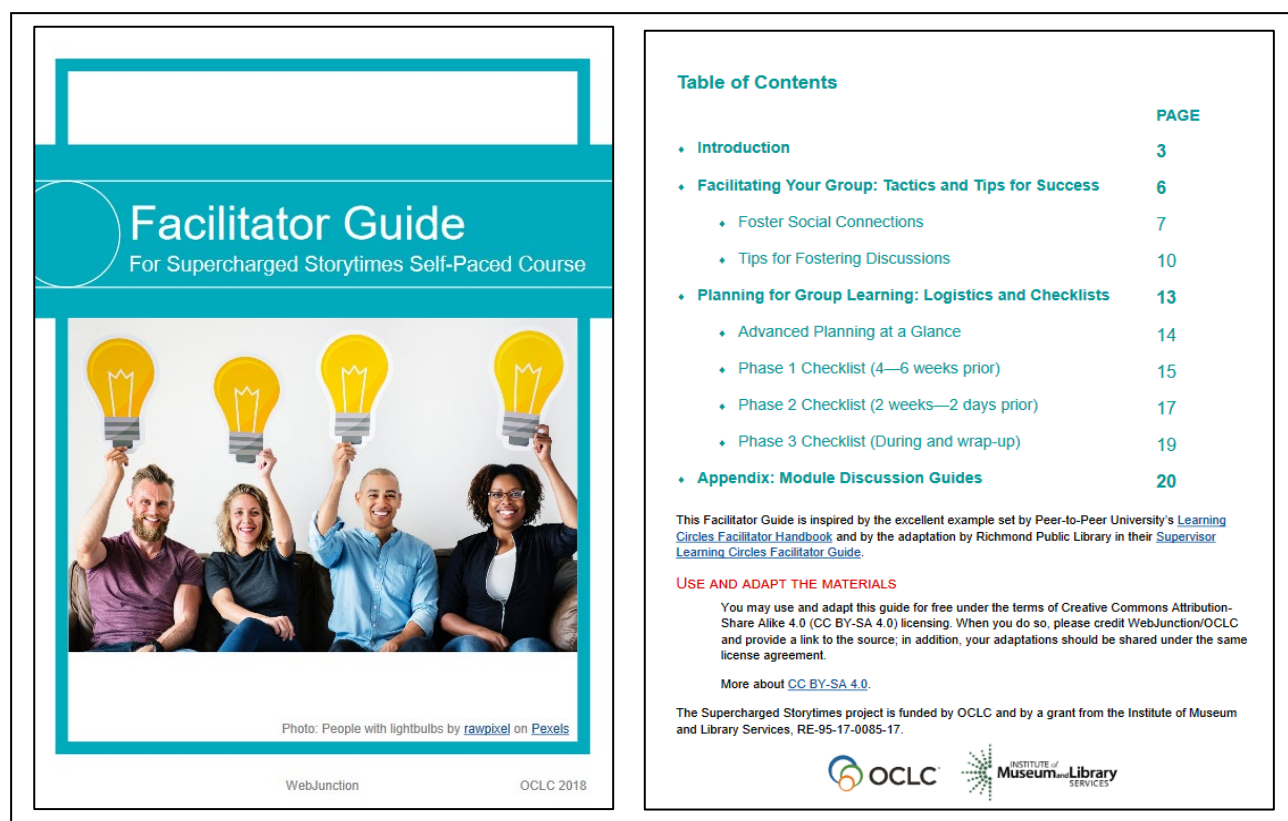
Table 1. Work plan proposed for creating self-paced course

Module	Work needed
0. Introduction	- Create video and written introduction to the course series (20-30 minutes of content)
1. Module 1: Get It – 2 courses	
<i>Get It - Course 1: Creating Policies</i> - Mission statement - Collections development/collecting policy	- Expand module introduction and record 7+ lecture videos (~1 hour of content)
<i>Get It - Course 2: Setting Up Sustainable Digital Projects</i> - Digitization: purpose statement, planning, equipment, and creation of digital files - Digital return projects - Working with digitization vendors	- Create video (new introduction to digitization video; overview of what is involved, range of choices, and issues) and record 14+ lecture videos (~1 hour of content)
2. Module 2: Check It – 3 courses	
<i>Check It - Course 1: Organization and Management of Collections</i> - Arrangement and processing - File management - Quality control	- Edit, split, re-record videos (~85 minutes of content)
<i>Check It - Course 2: Digitization Planning and Procedures</i> - Digitization policies - Documenting and following standards	- Record 3 lecture videos (~60 minutes of content)
<i>Check It - Course 3: Digitization Workflows and Digital Editing</i> - Digitization workflows - Digital editing software for images, documents, and audiovisual materials	- Create new slides and video overview (~95 minutes of content)
3. Module 3: Save It – 2 courses	
<i>Save It - Course 1: Creating Policies - Digital Preservation</i> - Digital preservation plan - Storage - File integrity - File access - Digital preservation tools - Preservation metadata	- Record 10+ lecture videos (~1 hour of content)
<i>Save It - Course 2: Physical Preservation</i> - Identification - Storage and handling - Display	- Edit and re-record videos; record 2-3 lecture videos (~20 minutes of content)
4. Module 4: Share It – 3 courses	
<i>Share It - Course 1: Creating Policies - Rights Management</i> - Access and use policy	- Record 6+ lecture videos (~80 minutes of content)

<ul style="list-style-type: none"> - Intellectual property plan - Copyright - Intellectual property - Traditional knowledge 	
<p><i>Share It: Course 2a for TALMS</i></p> <ul style="list-style-type: none"> - Using the Mukurtu CMS to manage online access to digital cultural heritage - Sharing and exchanging digital heritage in culturally relevant and ethically minded ways 	<ul style="list-style-type: none"> - Create new content on evaluation, planning, system and financial requirements of managing online access - Record lecture and screen videos (~45 minutes of content)
<p><i>Share It: Course 2b for U.S. public libraries</i></p> <p>Online access strategies, platforms, and tools to manage and share digital archive content; module will describe:</p> <ul style="list-style-type: none"> - The issues to account for in creating strategies for sharing digital content with library's community - Honoring and respecting the cultural diversity represented in the library's collection, including values around appropriate access and display - Understanding the key considerations in choosing a content management system - Available open source and low-cost options for content management systems, along with some of their relative merits - Creating and implementing a sustainable plan to implement an access platform 	<ul style="list-style-type: none"> - Create all new content such as slides, supporting documentation, text and videos consistent with the rest of the courses - Create slide and screen videos (~50 minutes of content)

Deliverable 2: Facilitation Guides and Instruction (September 2021–December 2021)

Two facilitation guides, one for TALM staff and one for public library staff, accompanied by online instruction in the facilitation of peer-learning groups, will be designed to support staff who want to lead groups of their peers in using the self-paced courses in a shared learning experience.



Example of facilitation guide for WebJunction's Supercharged Storytimes course

Online self-paced instruction provides the most sustainable model and greatest potential for scaling learning; however, the project team also understands the importance of social connection in learning. When groups of learners from the same institution, branch system, or region⁴ meet together to discuss the local relevance of a course topic and share their different perspectives, whether virtually or in person, it heightens their motivation to learn. Additionally, individuals participating in these local learning groups can provide peer support and increase the opportunity for successful real-world implementation and positive community outcomes. With that understanding, WebJunction has developed a highly successful facilitated learning model where a local peer group, led by a colleague-facilitator, uses a self-paced online course as the core content for a group learning experience. In this model, the facilitator does not need subject matter expertise, but does offer guidance for making the best use of the learning material in the group setting. Two downloadable facilitation guides will be created along with an additional self-paced course on facilitation skills. *Supporting Document 1* is an example of a facilitator guide,⁵ created for WebJunction's *Supercharged Storytimes*⁶ self-paced course.⁷

⁴ Noting that cross-system and cross-regional virtual peer groups may also form as a result of the COVID-19 pandemic.

⁵ <https://www.webjunction.org/content/dam/WebJunction/Documents/webJunction/supercharged-storytimes/facilitator-training/facilitator-guide-supercharged-storytimes.pdf>.

⁶ <https://www.webjunction.org/explore-topics/supercharged-storytimes/library.html>.

⁷ <https://learn.webjunction.org/course/search.php?search=supercharged394>.

Deliverable 3: Evaluation Report (January 2021–February 2022)

In collaboration with a third-party evaluator, the project team will develop an evaluation plan to measure the project's success. The project goals, related outputs, and success indicators are briefly described in Table 2 below. To determine if the goals for the course and the facilitator training have been achieved, data will be gathered using measurement instruments such as learner assessments for the self-paced courses on WebJunction.org, and a pre-course questionnaire and/or focus group to gather feedback from potential facilitators about their readiness to lead peer-learning groups. The project team will also collect and analyze usage data from the Sustainable Heritage Network portal and the enrollment and usage data for the self-paced courses on WebJunction.org through the end of the project. The resulting information will be used to produce a **final formative and summative evaluation report** at the conclusion of the project.

Table 2. Goals, Project Outputs, Success Indicators, and Measurement Methods

Goal	Related output	Indicator of success	Potential method for measurement
<p>Increase TALM and public library staff knowledge and skills around the life cycle of digital stewardship and each stage of collaborative curation, ethical stewardship of culturally sensitive collections, and how to work with cultural heritage professionals and tribal communities.</p>	<ul style="list-style-type: none"> • Self-paced course modules covering the life cycle of digital stewardship (<i>Get It, Check It, Save It, Share It</i>), with courses covering cultural needs and values of TALMs for tribal institutions as well as public libraries. • Introductory webinars 	<ul style="list-style-type: none"> • TALM staff who complete the self-paced online training program will have <ul style="list-style-type: none"> - increased knowledge about and skills for working with digital stewardship and each stage of collaborative curation. - developed policies and action plans for digital stewardship at their own institution. • Public library staff who complete the self-paced courses will have increased knowledge and skills <ul style="list-style-type: none"> - around the life cycle of digital stewardship and each stage of collaborative curation. - for how to work with cultural heritage professionals, tribal 	<ul style="list-style-type: none"> • Implement learner assessments for the self-paced courses on WebJunction.org. • Collect and analyze usage data for the self-paced course on the Sustainable Heritage Network portal through the end of project. • Collect and analyze enrollment and usage data for the self-paced course on WebJunction.org through the end of the project.

		communities and cultural collections.	
Expand access to digital stewardship continuing education to more TALM and small, rural public library staff.	A sustainable training program and related learning resources that can be freely accessed online by TALM and public library staff.	<ul style="list-style-type: none"> • More staff across the U.S. from TALMs and public libraries will access the online training program. 	<ul style="list-style-type: none"> • Collect and analyze usage data from the course on the Sustainable Heritage Network portal through end of project. • Collect and analyze enrollment and usage data for the self-paced course on WebJunction.org through the end of the project.
Support peer mentoring and collaborative learning among TALM and public library staff.	<ul style="list-style-type: none"> • Facilitator guides • Facilitator training for staff who wish to use guides for local peer-learning groups. 	<ul style="list-style-type: none"> • Staff who use the facilitator guides will be prepared to guide peer-learning groups at their institutions. 	<ul style="list-style-type: none"> • Gather feedback from potential facilitators about their readiness to lead peer-learning cohorts via pre-course questionnaire and/or focus group.

Project team

This project is a strategic partnership between OCLC and Washington State University's Center for Digital Scholarship and Curation that aligns WebJunction's demonstrated expertise with designing and delivering online learning at scale for small, rural public library staff with the Center for Digital Scholarship and Curation's demonstrated expertise with digital stewardship, collaborative curation, and training for TALM staff. See *Supporting Document 2* for a letter of commitment from Washington State University.

Building on OCLC's successfully implemented national projects for small and rural public libraries through WebJunction, such as Small Libraries Create Smart Spaces and the Rural Library Sustainability Program,⁸ WebJunction Learning Manager Dale Musselman will serve as project director. Mr. Musselman brings extensive experience with creating successful national online learning programs such as Improving Access to Civil Legal Justice Through Public Libraries; Wikipedia+Libraries, Better Together; and the National Network of Medical Libraries' recent series on medical and health information training for public libraries. WebJunction staff will collaborate closely with the expert team at Washington State University led by Dr. Kim Christen, Professor and the Director of the Digital Technology and Culture Program and Director of the Center for Digital Scholarship and Curation at Washington State University. Dr. Christen is the project director for the Tribal Digital Stewardship Cohort Program as well as the Sustainable Heritage Network.

Creation of the self-paced courses will be led by an instructional designer (TBD) who will join the project team under Mr. Musselman's supervision. Lotus Norton-Wisla, Center for Digital Scholarship and Curation Digital and Community Outreach Archivist, will act as primary subject matter expert for the adaptation. Additional OCLC project staff will include a project coordinator (TBD); WebJunction Senior Program Manager Kendra Morgan for grant administration; OCLC Research Communications Coordinator/Editor Erica Melko; and WebJunction Community Manager Jennifer Peterson for webinar support.

⁸ Read more about [Small Libraries Create Smart Spaces](#), the [Rural Library Sustainability Program](#), and other projects on [WebJunction.org](#).

Budget

The requested \$249,743 in funds will be used toward project team salaries and fringe (\$235,808) for the 18-month period; costs for subject matter experts (\$2,500); evaluation consultant (\$5,000); costs for traveling to and attending the Association for Rural and Small Libraries conference (\$1,800); Moodle hosting (\$2,500), course authoring software (\$2,000), and closed captioning for the WebJunction webinar (\$135). The partners will contribute an additional \$120,241 in cost share.

Diversity Plan

This project will continue the aim of Washington State University's original Tribal Digital Stewardship Cohort Program trainings: To serve the needs of TALM staff marginalized by large-scale national projects and professional organizations that do not recognize their sovereign status, unique historical role and collections, limited resources and infrastructure, and training needs.

The courses will center tribal protocols, goals, and values as the starting place for building policies, workflows, and curation. The project will use existing materials to represent and amplify the practitioner voices from past years of the Tribal Digital Stewardship Cohort Program into the courses; where needed, new material may be created that focuses on and amplifies the voices of these practitioners. Additionally, the training resources will be made widely available to staff at small public libraries throughout the U.S., many of which are in under-resourced, rural, and geographically isolated locations.

As with previous Tribal Digital Stewardship Cohort Program work, this project will coordinate with key professional organizations to ensure that the self-paced course and related materials reach a wide TALM audience. See *Supporting Document 3* for letters of support from the Association of Tribal Archives, Libraries, and Museums; the Society of American Archivists' Native American Roundtable; the American Indian Library Association; and the Tribal College Libraries Institute.

WebJunction will draw on its expertise with, and reach to, small and rural libraries to make sure that the courses are relevant to their practice and sensitive to their needs and capacity.

Broad Impact

Dissemination and communications

A joint OCLC-Washington State University communications plan will be created early in the project with the goal of promoting the courses to the field across the U.S. through WebJunction and OCLC communication channels, and to TALM institutions through Sustainable Heritage Network and Washington State University channels. WebJunction will host a webinar for public libraries that will introduce the courses, the facilitation guide, and the accompanying facilitator training. The recording of the webinar will be made available through WebJunction's free Course Catalog online.

Washington State University's Sustainable Heritage Network will host two free webinars to provide a step-by-step overview of the topic, training courses, and the facilitation guide for TALM staff; the recordings of these webinars will be posted to Sustainable Heritage Network's portal. The facilitation guides and accompanying instruction will be published to the WebJunction and Sustainable Heritage Network websites, and the guides will be available as freely downloadable files.

Additionally, WebJunction will submit the project to the Association for Rural and Small Libraries conference, the International Conference of Indigenous Archives, Libraries, and Museums, or similar event that may be offered in 2021, to raise awareness of key issues and concepts in digital stewardship and collaborative curation, and to promote the courses as a professional development opportunity.

Online learning has long been crucial for the professional development of library staff in small and rural areas, and it is anticipated that it will continue to play a large role as the U.S. faces the current and long-term fallout from the COVID-19 crisis. Considering projections that indicate how travel and large gatherings will be postponed for the coming time, free online learning resources will be particularly relevant and necessary. At the time of submitting this proposal, WebJunction had already seen a 665% increase in course usage since the mid-March closure of public libraries across the U.S.

The near-term outcome for the TALM and public library staff who complete the courses will be their **strengthened capacity** to manage and conduct digital stewardship and participate in or lead community-centered collaborative curation of cultural collections with stakeholders in their communities. Those staff who participate in or facilitate peer-learning groups with the course will have peer mentors and support to draw on as they initiate digital stewardship projects.

The longer-term impact of applying this strengthened capacity toward digital stewardship activities will be **increased public access** to diverse collections and cultural heritage materials. This project will extend and expand the Tribal Digital Stewardship Cohort Program's learning resources, allowing past IMLS investments in the program to be leveraged at a national scale so that a wider group of TALM and public library staff can build the knowledge, skills, and confidence needed to provide greater access to the information held in tribal archives, libraries, and museums. An informed and equitable society is well served through the increased ability to provide and preserve digital access to stories, artifacts, and images from diverse cultures that this training will support.

OCLC and Washington State University expect to sustain this training content beyond the life of the grant, and are committed to doing so. We are grateful for the opportunity to propose this project, and we look forward to your review.

Digital Stewardship Training Courses for TALMs and Small Public Libraries
Year 2: September 2021 - February 2022

Phase	Key activities	Sept	Oct	Nov	Dec	Jan	Feb
Deliverable 1: Create a set of 10 self-paced courses	Build 10 courses using course authoring software						
	Test instructional and technical function of courses						
	Add courses to the WebJunction Course Catalog and the Sustainable Heritage Network Portal						
Deliverable 2: Facilitator Guides and Instruction	Create facilitator guide for public libraries						
	Create facilitator guide for TALM staff						
	Create self-paced facilitator course						
	Publish guides and course on WebJunction.org and the Sustainable Heritage Network						
	Two Sustainable Heritage Network webinars for TALM staff to intro topic, course, facilitator guide						
	One WebJunction webinar to introduce topic, courses and facilitator guide after the fourth module						
Communications	Raise awareness of preservation issues, tribal libraries, Tribal Knowledge labels, etc. (includes webinar)						
	Promote self-paced course to tribal and public libraries (OCLC/WebJunction channels)						
Evaluation	Collect data on self-paced course usage						
	Collect feedback and data on facilitator guide						
	Final evaluation report						



DIGITAL PRODUCT FORM

INTRODUCTION

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to digital products that are created using federal funds. This includes (1) digitized and born-digital content, resources, or assets; (2) software; and (3) research data (see below for more specific examples). Excluded are preliminary analyses, drafts of papers, plans for future research, peer-review assessments, and communications with colleagues.

The digital products you create with IMLS funding require effective stewardship to protect and enhance their value, and they should be freely and readily available for use and reuse 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

If you propose to create digital products in the course of your IMLS-funded project, you must first provide answers to the questions in **SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS**. Then consider which of the following types of digital products you will create in your project, and complete each section of the form that is applicable.

SECTION II: DIGITAL CONTENT, RESOURCES, OR ASSETS

Complete this section if your project will create digital content, resources, or assets. These include both digitized and born-digital products created by individuals, project teams, or through community gatherings during your project. Examples include, but are not limited to, still images, audio files, moving images, microfilm, object inventories, object catalogs, artworks, books, posters, curricula, field books, maps, notebooks, scientific labels, metadata schema, charts, tables, drawings, workflows, and teacher toolkits. Your project may involve making these materials available through public or access-controlled websites, kiosks, or live or recorded programs.

SECTION III: SOFTWARE

Complete this section if your project will create software, including any source code, algorithms, applications, and digital tools plus the accompanying documentation created by you during your project.

SECTION IV: RESEARCH DATA

Complete this section if your project will create research data, including recorded factual information and supporting documentation, commonly accepted as relevant to validating research findings and to supporting scholarly publications.

SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS

A.1 We expect applicants seeking federal funds for developing or creating digital products to release these files under open-source licenses to maximize access and promote reuse. What will be the intellectual property status of the digital products (i.e., digital content, resources, or assets; software; research data) you intend to create? What ownership rights will your organization assert over the files you intend to create, and what conditions will you impose on their access and use? Who will hold the copyright(s)? Explain and justify your licensing selections. Identify and explain the license under which you will release the files (e.g., a non-restrictive license such as BSD, GNU, MIT, Creative Commons licenses; RightsStatements.org statements). 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.

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.

SECTION II: 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 digital 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, OBJ, DOC, PDF) you plan to use. If digitizing content, describe the quality standards (e.g., resolution, sampling rate, pixel dimensions) you will use for the files you will create.

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. Your plan should 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).

Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata or linked data. Specify which standards or data models you will use for the metadata structure (e.g., RDF, BIBFRAME, 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).

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, delivery enabled by IIIF specifications).

D.2. Provide the name(s) and URL(s) (Universal Resource Locator), DOI (Digital Object Identifier), or other persistent identifier for any examples of previous digital content, resources, or assets your organization has created.

SECTION III: SOFTWARE

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 or similar functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

Technical Information

B.1 List the programming languages, platforms, frameworks, 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), URL(s), and/or code repository locations for examples of any previous software your organization has created.

Access and Use

C.1 Describe how you will make the software and source code available to the public and/or its intended users.

C.2 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

URL:

SECTION IV: RESEARCH DATA

As part of the federal government's commitment to increase access to federally funded research data, Section IV represents the Data Management Plan (DMP) for research proposals and should reflect data management, dissemination, and preservation best practices in the applicant's area of research appropriate to the data that the project will generate.

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

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 sensitive information? This may include personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information. If so, detail the specific steps you will take to protect the information while you prepare it for public release (e.g., anonymizing individual identifiers, data aggregation). If the data will not be released publicly, explain why the data cannot be shared due to the protection of privacy, confidentiality, security, intellectual property, and other rights or requirements.

A.4 What technical (hardware and/or software) requirements or dependencies would be necessary for understanding retrieving, displaying, processing, or otherwise reusing the data?

A.5 What documentation (e.g., consent agreements, data documentation, codebooks, metadata, and analytical and procedural information) will you capture or create along with the data? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the data it describes to enable future reuse?

A.6 What is your plan for managing, disseminating, and preserving data after the completion of the award-funded project?

A.7 Identify where you will deposit the data:

Name of repository:

URL:

A.8 When and how frequently will you review this data management plan? How will the implementation be monitored?