

Alaska Library Network

Bridging Knowledge: Supporting Indigenous Scholars into the Field of Librarianship

The Alaska Library Network (ALN, Jodi Jacques), American Indian Library Association (AILA, Cindy Hohl) and Alaska State Library (ASL, Julie Niederhauser) request **\$708,238.75** (cost share \$263,592.50) for a three-year master's level project: "Bridging Knowledge: Supporting Indigenous Scholars Into the Field of Librarianship."

Statement of Broad Need

Bridging Knowledge will transform the field of librarianship by increasing the number of Indigenous librarians with an MLIS degree. The field of library and information science (LIS) is not racially or ethnically diverse. The lack of qualified Indigenous librarians is a critical issue. American Indian/Alaska Natives and Native Hawaiians have historically been and continue to be under-represented in the field. The number of AI/AN students in graduate library science programs have always been among the smallest of all minority groups.

Bridging Knowledge graduates will obtain their MLIS, while simultaneously being immersed in a supplemental curriculum centered on Indigenous perspectives, experiences, and knowledge. Students will have the opportunity to earn a certificate in digital assets management, allowing them to be confident stewards of Indigenous data, information, and records. Graduates of this project will bridge contemporary digital practices with Traditional Knowledge, while allowing for culturally appropriate stewardship of sensitive materials.

Historic Challenge Recruiting and Retaining Indigenous Librarians

In 1992, the U.S. National Commission on Libraries and Information Science published *Pathways to Excellence*, which identified the lack of trained librarians as a critical need. Sandy Littletree's 2018 dissertation, *Let Me Tell You About Indian Libraries* outlines the historic challenges and problems with recruiting and retaining American Indian professional librarians, which continues to be a significant problem even today.¹ All libraries-academic, public, special, and tribal - benefit by having equitable and inclusive workplaces and staff who are aware of the challenges and unique needs facing their community members.

According to the 2010 Census, 5.2 million people in the United States identified as American Indian and Alaska Native, either alone or in combination with one or more other races. Out of this total, 2.9 million people identified as American Indian and Alaska Native alone. 1.2 million people identified as Native Hawaiian and other Pacific Islander, either alone or in combination with one or more other races.

The Alaska Native or American Indian (alone) population in Alaska was 113,714 in 2019, or 16 percent of the state's total, a larger proportion than any other state. Montana is home to approximately 78,000 people of American Indian heritage, or 6.5 percent of the state's total population.² The Native Hawaiian or other Pacific Islander (alone) population was 10 percent of the state's total population, according to the U.S. Census Bureau's 2019 Population Estimates program.³

¹ Little, S. (2018). "Let Me Tell You About Indian Libraries": Self-Determination, Leadership, and Vision-The Basis of Tribal Library Development in the United States. Seattle, WA: University of Washington

² <https://www.greatfallstribune.com/story/news/2020/08/17/montana-tribes-us-census-2020-deadline/3347974001/>

³ Alaska Population Overview 2019 Estimates, <https://live.laborstats.alaska.gov/pop/estimates/pub/19popover.pdf>

In 2016–18, American Indians/Alaska Natives (AI/AN) had lower levels of educational attainment than the population as a whole. AI/AN workers were also much less likely than the overall population to work in management, professional, and related occupations (25 percent versus 40 percent). The likelihood of being employed in management, professional, and related occupations increases with educational attainment.

In 2012, the Association of Tribal Libraries, Archives and Museums (ATALM) published a ground-breaking national needs assessment ***Sustaining Indigenous Culture: The Structure, Activities and Needs of Tribal Archives, Libraries and Museums***. A key finding was the need for “trained Native personnel to work as archivists, librarians, curators and exhibit directors.” The report highlighted the interconnectedness between tribal libraries and archives, identified barriers that stymie expanding culturally - appropriate library holdings, and the need for specialized library science and information services training.

“Sixty-six percent of tribal library staff members have some type of credential, ranging from a non-degree certificate in library education to a Master’s of Library Science or Masters of Information Services from an American Library Association accredited university program. The most typical credential is a four-year undergraduate degree (in any subject), which is held by 25% of tribal library staff identified in the survey, or 37% of those with a credential. A full 34% of staff has only on-the-job library services training. These education profiles suggest a need for professional development. Given the array of responsibilities borne by tribal library staff, however, typical library science and information services training alone may not be adequate.” (Sustaining Indigenous Culture, pg. 18)

Key Informant Interviews Informed Project

In 2020, a research committee comprised of librarians from the Alaska State Library, Tuzzy Consortium Library, Montana State Library, and Montana State University conducted key informant interviews to obtain recommendations on strategies to address the barriers to higher education that curb Indigenous students’ decisions to pursue a Master’s in Library Science degree and a career in librarianship.

The impetus for **Alaska and Montana Key Informant Interviews: American Indian/Alaska Native undergraduate’s pathways to librarianship** was recognition that the staff working in libraries in Montana and Alaska do not fully represent the communities they serve. While there are jobs in schools, public libraries, and tribal and university libraries for credentialed Indigenous professionals, few apply. The Montana State Library does not have a single enrolled tribal member serving in the role of librarian, even though Native Americans are the largest minority group in Montana - over 6% of the total population. Tribal colleges in Montana are unable to fully staff their libraries with community members. While professional library organizations in Alaska and Montana offer scholarships to offset the cost of attaining a Master’s degree in librarianship (MLIS), few of these scholarships have been awarded to AI/AN students.

In 1992, the Alaska Library Association (AkLA) began offering a general scholarship for MLIS students with preference given to individuals meeting the federal definition of Alaska Native ethnicity. The Alaska Association of School Librarians (AkASL) created a scholarship for candidates pursuing a school library endorsement in 2002. Of the 87 AkLA and AkASL scholarships awarded since 1992, only seven have been awarded to Alaska Native students pursuing a degree in librarianship. In Montana, the library association offers 2-3 scholarships each year, but only one Native American has been awarded a scholarship in the past decade. One reason for the dismal participation by Indigenous students in these scholarship opportunities is the limited financial support they provide. For example, the \$4,000 Alaska Library Association scholarship is

not sufficient for students to offset the annual tuition costs of online MLIS degree programs, which can range from \$4,627 to \$15,300 per year.⁴

Five key informant interviews were conducted in September 2020 with Indigenous library professionals who achieved their degrees and are well-informed about the hurdles faced by other scholars. The telephone interviews generally lasted between 60 to 90 minutes. Notes and transcripts of the interviews were reviewed and approved by interviewees prior to being analyzed by researchers. A matrix with key thematic findings was developed. A report with findings and recommendations was provided to the Bridging Knowledge Advisory Committee in preparation for this grant application.

The key informants tell a remarkably similar story of the obstacles Indigenous graduate students experience while pursuing an MLIS degree. Key informants shared experiences of often being the only Indigenous person in class. They described their feelings of discomfort when faced with the expectation that they should represent all Indigenous cultures across the continent. Some of the key informants noted the difficulty of leaving their rural home to attend graduate library school in a city. They identified the cost and lack of internet access as barriers to online learning at home. Key informants listed the support of family and community as a key element to their success, but they also encountered family and community members who were not supportive of their academic pursuits, often out of concern that a graduate degree would result in the librarian leaving their community for a job elsewhere.

For all of these reasons, the opportunity that this grant project would provide for a cohort of Indigenous students to earn their MLIS was compelling. Key informants also encouraged the researchers to find ways to connect Indigenous scholars to AILA and the Tribal College Library Institute early in their careers.

The barriers identified in our key informant findings mirror some of those identified in ***Community-based (Rooted) Research for Regeneration: Understanding Benefits, Barriers and Resources for Indigenous Education and Research:***

- Capacity-unique challenges and constraints faced by Indigenous scholars and practitioners who are operating within multiple cultural frameworks are a key barrier
- “Crabs in the bucket,” meaning that Indigenous scholars face internal barriers and challenges from one’s own community
- Resource limitations, lack of funding resources, and access issues, including physical, geographical, and broadband constraints.

While the ***Community-based (Rooted) Research for Regeneration*** article focused on Indigenous knowledge in science education in the Caribbean islands, the challenges and opportunities of education outlined in the article speak to the racial inequities that persist in higher education across all disciplines.⁵

This project will address the historic and persistent lack of representation of Indigenous scholars in the field of librarianship and the cultural, financial, and social barriers Indigenous students encounter while earning an MLIS. Analysis of our key informant interviews revealed that securing reliable financial assistance that covers more than just tuition was one of the critical conditions necessary for Indigenous graduate students to be successful. Bridging Knowledge will provide students with financial assistance that includes tuition, books,

⁴ 2020 Most Affordable Master’s in Library Science Online, <https://www.onlineu.org/most-affordable-colleges/library-science-masters-degrees>

⁵ Dominique M David-Chavez, et al. *Community-based (rooted) research for regeneration: understanding benefits, barriers, and resources for Indigenous education and research*. AlterNative Volume: 16 issue: 3, pg. 220

technology stipends, internships, library association memberships, and travel stipends. Our project is committed to providing students with scaffolded support to address the barriers and challenges they may experience from their own community. Students will receive a **\$250.00** professional development stipend each year to participate in library association conferences and will receive encouragement and support from peers and mentors.

Project Design

Bridging Knowledge will provide financial and scaffolded student support to 15 American Indian, Alaska Native and Native Hawaiian graduate students to earn MLIS degrees and an Advanced Certificate in Strategic Management of Digital Assets and Services in partnership with San Jose State University (SJSU). The grant will support the recruitment, training, and development of these Indigenous librarians and contribute to growing a diverse and skilled professional workforce.

This unique project was developed in collaboration with an advisory committee consisting of leaders from academic, public, state, and tribal libraries in Alaska, Montana, Hawaii, SJSU and AILA. It was informed by an analysis of Key Informant Interviews and a review of current literature on the topic of Indigenous higher education. The project will be guided by the experience and knowledge of the Advisory Committee members.

Phase	Description	Timeframe
Phase 1	Student Recruitment & Support	September - December 2021
Phase 2	Student Development & Mentoring	January 2022 - May 2024
Phase 3	Student Internships	May 2023 - July 2023
Phase 4	Final Evaluation & Dissemination	May 2024 - August 2024

Phase 1: Student Recruitment & Support

The goal of this phase is to recruit 15 American Indian, Alaska Native and Native Hawaiian participants who aspire to earn an MLIS. The Recruitment Committee (see Appendix B) will implement and monitor a proactive national recruiting effort by leveraging personal, tribal, and professional contacts. Monthly meetings will be scheduled to ensure that best practice recruitment strategies are employed in order to attract interested and qualified candidates.

A strength of Bridging Knowledge is the engaged and participatory Advisory Committee, consisting of professionals currently working in the field who identify as Alaska Native, American Indian and Native Hawaiian. Their experiences, insight, knowledge, and perspectives informed and shaped the design of this project. Their expertise will be leveraged as mentors and through the creation and implementation of the supplemental curriculum.

Bridging Knowledge was inspired by and builds upon the success of SJSU School of Information Circle of Learning program. The Bridging Knowledge Advisory Committee includes a Circle of Learning (COL) graduate and SJSU Student Advisor. Another member of the Advisory Committee is a graduate of the Knowledge River program from the University of Arizona in Tucson.

Bridging Knowledge has received numerous letters of support from Indigenous library leaders and tribal organizations, COL graduates and library professionals and state library associations (see Appendix D).

The Alaska State Library will create a web page to promote the project and help interested students obtain information. Project Manager Cindy Hohl will be the lead and designated contact for prospective students. The link to the project webpage will be available from the AILA, ALN and SJSU websites.

AILA leaders Cindy Hohl and George Gottschalk will record a short video describing the Bridging the Knowledge project to encourage prospective students to apply. The Alaska State Library will work with Indigenous graphic designers to create promotional recruitment materials that will be shared with the project's partners. Promotional materials will feature testimonials from practicing Indigenous librarians and may be translated into Indigenous languages.

Project partners and Advisory Committee members will leverage their community connections, use listservs/emails and other communication channels from state, regional and library associations, and universities in a national recruiting effort. Recruitment posts will be shared on AILA's, Alaska State Library and Montana Library Association's Facebook and Twitter accounts. Information about Bridging Knowledge will be shared with tribal libraries and colleges, Native organizations, tribal leaders, and Alaska Native Regional Corporations, especially those who have received an IMLS Native American Grant in recent years.

To be eligible for the scholarship, applicants must identify as American Indian, Alaska Native or Native Hawaiian and provide proof of an application in progress with the SJSU MLIS program. Applicants must meet the November 1st deadline for the Bridging Knowledge scholarship in advance of the SJSU admission deadline for Spring 2022. They will complete an online application form and submit a cover letter describing their background, library interest or experience, and their future goals as librarians. The Applicant Selection Committee (see Appendix B) will review the applications and score them using a rubric. Selection of applicants will be based on the combined scores and each student's potential for successfully completing the program. Admission into the SJSU Program is a requirement of the scholarship. Information from selected applicant cover letters will inform their mentor pairing.

Applicants selected to receive the scholarships will be notified and invited to a virtual meeting where they will be welcomed into the program and invited to attend the Virtual Kickoff Orientation in January, which is described in the Phase 2 narrative below. SJSU will also provide enrolled students with an extensive onboarding process to include an online orientation, a one-credit online course before the semester starts, a new student checklist, and new student registration workshop.

Financial support to students will consist of **tuition, books, technology stipends, internships, library association memberships, and travel stipends**. Analysis of our key informant interviews revealed that securing reliable financial assistance that covers more than just tuition was one of the critical conditions necessary for Indigenous graduate students to be successful. Additional conditions were student involvement in library associations, such as the American Indian Library Association; the support of a peer or mentor; and the understanding by the student's family members of the time commitment required for graduate school. Our project is committed to providing students with scaffolded support.

Students enrolled in the program will receive **\$7,544** for each year of the project for tuition and textbooks. The grant Fiscal Agent, Jodi Jacques (ALN), will work with SJSU's Bursar's Office to coordinate the payment of student's tuition. Jodi Jacques will oversee the distribution of funds for textbooks, technology costs (e.g.,

laptops and internet fees), internship costs (e.g., travel, housing, and stipends), library association dues, and travel stipends (e.g., conference registration, travel, hotel and ground transportation).

Students will receive a technology stipend in the amount of \$2,000 the first year and \$1,000 each in years 2 and 3. These funds may be used to purchase a laptop, desktop, printer, headset, or associated internet cost. Students will have access to the members of the SJSU Technology staff, who will be available to offer individual technological assistance.

Phase 1: Deliverables

- Project webpage
- Promotional video and materials

Phase 2: Student Development & Mentoring

During this phase, the goal is to provide students with ongoing financial, personal, and professional support. Mentors will be introduced to the goals and objectives of the mentoring program prior to being matched with a mentee. Mentors will receive ongoing support, tips on mentoring best practices and information on professional workshops and presentations that may appeal to both the mentors and their mentees.

Project Manager Cindy Hohl will organize a Virtual Kickoff Orientation in January to welcome and orient students into the project. She will work with the Supplemental Curriculum Committee (see Appendix B) to identify topics and presenters for the supplemental webinars. Project Co-Directors will pair students with professional mentors and schedule quarterly mentoring activities. Dr. Michele Villagran, one of SJSU's MLIS generalist faculty advisors and a pathway advisor in Cultural Diversity, will serve as the Bridging Knowledge students' first faculty advisor. She will assist students in course planning and help them get started in the program. As students progress through the program, they will be able to select their own faculty advisor.

A Virtual Kickoff Orientation will be scheduled in January to introduce students to SJSU instructors and project staff and one another. Presentations will include inspirational keynotes by Indigenous library leaders, advice on how to succeed in graduate school, and virtual learning strategies. We will provide practical information about the project, including timelines, project resources such as the Canvas LMS, reimbursement forms, and time for questions and answers.

A critical component of this project will be the ongoing and layered student support. Project Manager Cindy Hohl will guide students through the initial process of applying and will be available to students as a role model and mentor throughout their program. Students enrolled in the Bridging Knowledge program will be placed with Dr. Villagran, a faculty member at SJSU with expertise in cultural intelligence, diversity, and inclusion. Sheila Gurtu, Student Outreach at SJSU will also be available to support students. Each student will be paired with a mentor who is currently working in the field.

Peer-to-peer support will be fostered during students' participation in the online discussion forum on the Bridging Knowledge Canvas site in the SJSU learning management system. Introductory discussion threads will highlight student's common goals and their issues or challenges, which should help participants bond. Trends, themes, and topics revealed during group discussions will be used by project staff in planning future workshops or identifying potential speakers. Bridging Knowledge students will be enrolled into the same

section of INFO 203, a one-unit early start course, and will be paired with MLIS students a semester away from graduation. These experienced students will serve as peer mentors providing guidance and assistance.

Students will be oriented early in the program to the mentorship program, including the importance of mentoring to both the mentor and mentee. Project Co-Directors will develop a mentorship agreement for those students who chose to be paired with a mentor. Project Co-Directors will schedule regular check-ins for mentors with their mentee and will help coordinate opportunities for mentors to meet face-to-face with their mentee(s) during conferences. COL and Knowledge River alumni and Bridging Knowledge advisory members will serve as professional mentors.

Students will receive travel stipends to reimburse travel and lodging costs to attend one day meetings and training sessions, which will be held at the following conferences:

- 4th National Joint Conference Librarians of Color, St. Pete Beach, Florida October 5-9, 2022
- ATALM Conference location TBD, 2023

Active participation in library and student associations was cited as a condition of support in our Key Informant interviews. In addition to providing students with continuing education, networking, and leadership opportunities, library associations provide students with role models and mentors. Students will receive an annual stipend to purchase student memberships to any of the following library associations:

- American Indian Library Association (AILA)
- American Library Association (ALA)
- Association of Tribal Archives, Libraries and Museums (ATALM)
- State Library Associations

Project Manager Cindy Hohl will oversee the delivery of quarterly webinars, which form the supplemental curriculum, a unique feature of this project. The supplemental curriculum will emphasize Indigenous methodologies for culturally appropriate digital curation skills and build the capacity of Indigenous students to be change makers to decolonize information services. Utilizing the dedicated Zoom platform provided by SJSU, these webinars will feature Indigenous librarians, advisory members, and COL and Knowledge River alumni. These webinars will feature topics related to librarianship, archives, digital curation, and preservation, and also being inclusive and representative of Indigenous experiences and perspectives. Planned webinars include:

- Traditional Cultural Expressions with Dr. Loriene Roy
- Indigenous Children Books & Publishing with Dr. Debbie Reese
- Community Engagement: Interviewing Elders with Norma Shorty

Co-Director Julie Niederhauser (ASL) will post the webinar recordings on the Sustainable Heritage Network (SHN) under the Alaska State Library, Archives and Museums Community to increase public understanding of Indigenous librarianship. Bridging Knowledge students will also participate in a variety of professional development, networking and educational experiences that are centered in Indigenous epistemologies.

Phase 2: Deliverables

- Student Travel Stipend
- Student Library Association Memberships
- Supplemental Curriculum

Phase 3: Student Internships

Student mastery is the goal of this phase of project. The 15 Indigenous students enrolled in this project will earn an ALA-accredited MLIS degree online through SJSU School of Information. The SJSU curriculum includes 43 credits of library, archives, and records management courses. Students will engage with a supplemental curriculum that emphasizes Indigenous methodologies to teach culturally appropriate digital curation skills and build the capacity of Indigenous students to be change makers to decolonize information services. An 8 week or extended internship will be a culminating experience. The internships will provide students with an opportunity to gain practical hands-on experience and apply their learning to benefit of Indigenous communities. The project will fund 10 on site internships and has secured commitments for internships at state libraries, Tribal Colleges, and elsewhere. SJSU will provide 5 virtual internship opportunities for students who are unable to leave their community for an extended period of time.

Students will be encouraged to participate in an extended digital stewardship internship, which will complement their graduate-level education. Project Manager Cindy Hohl and Advisory Committee members will identify internships for students. Fiscal agent Jodi Jacques (ALN) will distribute funds to students for travel and housing during their internship. Internships opportunities from tribal museums, archives and libraries on digital preservation, curation and stewardship projects will be prioritized.

Students will share their internship experiences with others on the Canvas Learning Management System. Students will be encouraged to present at professional conferences and write articles for AILA's newsletter, the SJSU Student Research Journal, and at meetings of student chapters of state and regional professional library associations. Whenever possible, student conference presentations will be recorded and added to the Alaska State Library's Community on the Sustainable Heritage Network. Upon graduation, students will receive individual assistance from Kim Dority, SJSU Career Advisor at the School of Information, as they start their job search in libraries, archives, and museums.

At the start of the project, students enrolled in the Bridging Knowledge program will complete a baseline questionnaire, which will capture demographic information, educational interests, and goals. During the project, students, key staff and partners will complete evaluations, participate in focus groups, and interviews to ascertain the ongoing quality of the project. An annual evaluation will measure the quality of students' formal and informal educational experiences, their perceptions of the program, their levels of satisfaction, and their progress toward personal development. This continuous evaluation will allow the Project Manager and the Advisory Committee to quickly respond and rectify any identified issues. At the conclusion of the project, participants will complete a final survey. SJSU will follow graduates of the Bridging Knowledge Project for one-year to determine the percentage who have found employment.

Formal indicators of success for this continuous assessment include:

- Grades: all core courses must be completed with a grade of B or better. (SJSU requirement)
- Successful progress toward degree attainment.
- Successful internship completion if students choose to do an internship.

Indicators of success

- Evidence of professional accomplishments, (e.g., published articles, poster sessions, or presentations.)
- Participation and engagement at annual meetings during the three-year project

- Responsiveness to requests for information from Project Staff and external evaluator

Phase 3: Deliverables

- Student internships
- Compilation of indicators of success for student cohort

Phase 4: Final Evaluation & Dissemination

We will hire an external evaluator familiar with Indigenous peoples and knowledge systems and values to conduct an assessment that will evaluate, assess, and report on project outcomes. The evaluator will:

- Assess project's impact on student's formal and informal learning
- Assess the quality of the mentorships, internships and leadership opportunities and their alignment with project goals
- Assess the quality of the supplemental learning resources and their alignment with project goals
- Develop key findings and recommendations.

The external evaluator will attend 6 meetings (2 meetings per project year) with the Project Manager to discuss assessment activities and findings. The external evaluator will write interim and final assessment reports. The Project Manager will oversee the completion of the annual performance, financial, and final project report to the IMLS.

Our project findings and insights will be disseminated in articles published in journals and on library association newsletters and blogs. Project successes and lessons learned will be shared with others via our project partner's social media, listservs, and websites. The Project Manager, Co-Directors and students will raise awareness on the project's transformational effect on the field of librarianship by leading sessions during state, regional and national library conferences.

The success of Bridging Knowledge rests upon the ongoing cooperation, collaboration, knowledge and sharing of resources held by project partners and advisory members. All partners share a commitment to increasing the diversity and representation of American Indians, Alaska Natives and Native Hawaiians in the field of librarianship.

Phase 4: Deliverables

- Project Reports

Diversity Plan

Bridging Knowledge will recruit students who are American Indian, Alaska Native, and Native Hawaiian to provide Indigenous librarians to Indigenous communities and to encourage a diversity of perspectives in this professional field. While students may represent other diverse groups, this project focuses on enhancing and supporting Indigenous librarianship. Grant partners include the American Indian Library Association, which represents over 500 federally recognized tribal entities and many other tribal entities that are not recognized. Other key partners include state libraries and library associations, tribal colleges, university libraries, Circle of Learning and Knowledge River graduates, and Indigenous librarians and scholars working in the field.

Another purpose of the grant project is to enrich the curriculum and indigenize the role of libraries by including the Indigenous perspective. The intent is to decolonize librarianship and empower Indigenous librarians and library workers to benefit and strengthen urban and rural Indigenous communities. Incorporating cultural values and honoring lived experience of Indigenous peoples provides culturally relevant context for organizing and providing access to information.

Bridging Knowledge pays special attention to the development of Indigenous library and archives professionals who make up a small percentage of LIS. Through this project, we build upon the success of the SJSU Circle of Learning and develop a cycle of bringing new Indigenous scholars into the profession. The recruitment, development, and retention efforts of this project will encourage younger students to see the possibilities of these career fields and their role in our communities and the broader society.

Bringing the knowledge and cultural experience of Indigenous peoples into the profession allows students to strengthen connection to their own information and knowledge systems and shared cultural and historical narratives. This project will encourage more Indigenous people to see the profession as a career pathway. These graduates will be poised to assume leadership roles in their community, working to ensure the history, culture, and traditional knowledge of the community is retained for future generations.

Our Advisory Committee is diverse. The project is partnering with the San Jose State University School of Information because of their knowledge gained through their COL project and their commitment to accessibility⁶, inclusiveness and diversity⁷.

Broad Impact

Bridging Knowledge: Supporting Indigenous Scholars into the Field of Librarianship will have current and lasting impact on diversifying and shaping communities of practice and the future of LIS. As the graduates enter the workforce and assume leadership roles, they will inspire more Indigenous scholars to pursue an MLIS. The educational and hands-on digital curation experience that graduates gain from this project will allow them to serve as a bridge between the wisdom keepers and knowledge seekers in Indigenous communities. Graduates will possess the knowledge, leadership skills, and support networks necessary to bring about the radical change required to evolve libraries from monocultural institutions into inclusive organizations, where diverse points of view and experiences are welcomed and diversity is seen as a strength.

Bridging Knowledge will serve as a model for future American Indian/Alaska Native and Native Hawaiian MLIS recruitment initiatives. Supplemental curriculum, presentations, and poster sessions featuring scholarship as a result of this program will have a broad impact on library services and workforce. Professional relationships fostered through project partnerships, student mentorships, and internships and the scholarship developed through the supplemental curriculum will have a lasting impact on the library and information services field.

⁶ SJSU's Accessible Education Center, <https://www.sjsu.edu/aec/>

⁷ SJSU iSchool's Diversity Webcast Series, <https://ischool.sjsu.edu/istudent-blog/dont-miss-sjsu-ischools-diversity-webcast-series>



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?