

American Library Association Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

The American Library Association (ALA) requests \$99,726 in IMLS Laura Bush 21st Century Librarian Program funding for a 12-month planning grant.

Through *Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum*, the ALA Public Programs Office will convene a task force to (1) conduct a landscape review of existing programming curricula in both (a) MLIS classrooms and (b) informal professional development offerings and (2) make recommendations for future curriculum development based on the core competencies identified through ALA's National Impact of Library Public Programs Assessment (NILPPA)^{1 2}.

This process will include (1) a landscape review of programming course syllabi currently being taught in MLIS programs and through professional development nationwide; (2) facilitated conversations between 12 library field advisors (programming librarians, MLIS programming course instructors, and continuing education content providers from the field) to discuss strengths, weaknesses, gaps, and opportunities in current offerings; (3) consideration of further alignment with the NILPPA Core Library Programming Competencies and (4) iterative publication of a set of recommendations for the creation of programming-specific curriculum for the field, including a gathering public feedback over an eight-week period in Q4. This planning grant will position the ALA Public Programs Office to submit a project proposal for development and distribution of a curriculum for programming librarians.

STATEMENT OF NEED

In today's fast-changing world, library programming is increasingly integral to enhancing library responsiveness and adaptability. Through programming, libraries identify, address, and reflect community needs; enhance their institutional capacity and services; and contribute to our democratic society. An increased interest in, and reliance on, library programming throughout the field is evidenced, among other things, by the rapid growth of programming-related professional development and networking opportunities made available to the field. Since its formation in 2014, ALA's Programming Librarian Interest Group, an active network of programming librarians that communicate via a closed Facebook group, has grown to 16,500 members. Web visits to ALA's Programming Librarian website has increased steadily in recent years, with 38,000 unique visitors accessing the site in March 2020.

It is no coincidence that this increased focus on programming comes at a time when print material circulation is dropping and libraries are increasingly seen as players in not just access to

¹ Sheppard, B., Flinner, K., Norlander, R.J., & Fournier, M.D. (2019.) *National Impact of Library Public Programs Assessment: Phase 1, A White Paper on the Dimensions of Library Programs & the Skills and Training for Library Program Professionals*. Chicago: American Library Association & New Knowledge Organization Ltd.

² Norlander, R.J., Barchas-Lichtenstein, J., Fraser, J., Davis-Fournier, M., Voiklis, J. & Danter, E. (In press). Getting consensus about competencies: What's needed for effective library programs. *Journal of Education for Library and Information Science*. 61(2).

ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

learning materials but homes for community-building efforts as well³. The role of the library is changing and growing, and programming librarians are on the front lines of that change.

Unfortunately, library workers are not being adequately trained for the task. As ALA learned in 2017-2019 through the IMLS-funded NILPPA: Phase 1, master’s-level library science programs rarely train the next generation of library professionals for the dynamic and vital work of creating and leading programs. And many library workers receive no formal program training at all. The NILPPA research found:

- At least 50 of the 58 masters-level library degree programs offer courses that address programming. However, no university requires students to take these courses; all were offered as electives.
- 93 percent of survey respondents said they learned to run programs on the job, 62 percent from colleagues, and 74 percent from other informal learning. Only half of survey respondents said they learned programming skills in their degree program or other academic training⁴. (See table.)

Table 10. How did you acquire relevant skills or abilities?

	Frequency
MLIS program	506
Other formal academic training	325
Informal training	919
On the job	1,161
From colleagues	775
Other	323
N/A (I do not believe I have necessary programming skills)	14

Note: N = 1,247 respondents, with most of them selecting multiple answers. The median respondent selected 3 different answers. Only 129 respondents selected a single answer, including 11 of the 14 who did not believe they had programming skills.

Informal and peer learning has been filling the gap. The NILPPA Summative Report further states: “Participants cited hands-on learning as key to developing skills relevant to programming. Many expressed the sentiment that they had been unprepared to manage library programs at the beginning of their careers, and only became comfortable with the job after a few rounds of working on project committees, and times spent trying to organize their own programs. ... For many participants, colleagues are the most useful resource when learning how to run library programs. Answers frequently mention coworkers who taught them the job in an apprentice-style relationship, with a couple even writing guides for future programming library workers at the institution. Library workers also connect with peers through conferences and social media, often finding ideas for potential events. Attending other institutions’ programs is also helpful for

³ Reid, Ian. “The 2017 Public Library Data Service Report: Characteristics and Trends.” *Public Libraries Online*. 4 December 2017. <http://publiclibrariesonline.org/2017/12/the-2017-public-library-data-service-report-characteristics-and-trends/>

⁴ Barchas-Lichtenstein, J., Norlander, R., Voiklis, J., Nock, K., Fraser, J., & Danter, E. (2019.) *National Impact of Library Public Programs Assessment: Summative Report*. NewKnowledge Publication #IML.074.207.06. Chicago: American Library Association & New Knowledge Organization Ltd.

ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

many, as many respondents report visiting other events to learn how to assess whether certain techniques or ideas work.”⁵

Upon the conclusion of NILPPA Phase 1, ALA laid out its goals for future work: “We hope this white paper will advance the field’s understanding of how, when, and why library programming is happening. Our intent is for practitioners to see themselves and their communities in this research and use these frameworks to affirm and enhance their programming; ***for these findings to illuminate the possibilities for LIS programs to expand their curricula to meet the needs of a field that uses programming as the most direct pathway to community; and to inform ALA professional development efforts in support of emerging needs in the field,***” the NILPPA Phase 1 white paper states (emphasis added)⁶.

This project falls into the IMLS project category of **Lifelong Learning**. At its core, public programming enables learning across the life cycle, free of charge, for all library-goers. Having a library workforce that is fully trained and competent in this foundational work will support ongoing learning for families and individuals with diverse backgrounds and needs.

The project falls into the IMLS **Exploratory** maturity phase. While it will build on existing NILPPA research, the project seeks to explore new ground. Are MLIS classrooms and professional development offerings teaching the competencies that have been identified through NILPPA as foundational to library programming work? How can the deepened understanding of library programming competencies achieved through NILPPA be applied to practical training efforts? This planning grant will enable us to make explore these questions and draw connections between what is currently being taught and what is needed for the 21st-century programming librarians. Piloting and scaling of a curriculum would take place in a later phase of funding.

PROJECT DESIGN

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum is designed with the following goals and outcomes in mind:

Goals	Outcomes
Conduct a landscape review to explore content taught in existing MLIS library programming courses and continuing education offerings throughout the field and analyze their overlap with the NILPPA Core Library Programming Competencies.	ALA learns what is being taught in elective MLIS programming courses, enabling us to better identify overlaps, gaps, and opportunities for future trainings.

⁵ Barchas-Lichtenstein et al, NILPPA Summative Report.

⁶ Sheppard et al., NILPPA: Phase 1 White Paper.

ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

<p>Assemble a task force of library leaders to discuss strengths, weaknesses, gaps, and opportunities in existing programming curricula and identify opportunities for further alignment with the NILPPA Core Competencies.</p>	<p>A core group of experts with the background knowledge to lead curriculum development in future phases of this project.</p>
<p>Publish and collect feedback from the library field on recommendations for the creation of programming-specific curriculum for the field; publication of a blog series written by task force members.</p>	<p>Task force recommendations and content to inform an implementation grant proposal; awareness of the project within the library profession; feedback and buy-in from library practitioners to inform implementation grant.</p>

Assumptions

Grounded in the IMLS-funded NILPPA research and informed by ongoing input from the field, we begin this planning grant with three core assumptions:

1. Demand for library programming skills is on the rise among library workers.
2. A planning process is necessary to produce a responsive, community-driven skills curriculum to align with the nine Core Library Programming Competencies identified through NILPPA: Phase 1 research.
3. A carefully crafted, expert-guided programming curriculum will address a need in the field and aid library practitioners in developing and executing successful programs for their communities.



ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

1. **Organizational skills:** Works toward managing time and projects efficiently and effectively at multiple levels: individually, institutionally, and in collaboration with outside organizations and agencies.
2. **Knowledge of the community:** Works toward understanding the communities for which programs are developed, including their particular needs and interests; building respectful, reciprocal relationships with community members and organizations; and ensuring access to a wide variety of programs for all community members, especially those who have historically been underserved or face other challenges to access.
3. **Interpersonal skills:** Works toward communicating effectively and appropriately with all stakeholders and audiences to provide consultation, mediation, and guidance during programs and in other contexts relating to programs.
4. **Event planning:** Works toward planning, managing, and implementing events that are both developmentally and culturally appropriate for their intended audiences.
5. **Creativity:** Responds to challenges and problems with inventiveness, flexibility, and creativity to resolve them.
6. **Content knowledge:** Works toward sufficient knowledge of program content to deliver, manage, or evaluate programs, according to role.
7. **Outreach and marketing:** Works toward communicating information about programs to all community members who could potentially attend or benefit, using a variety of digital and analog channels in ways that are culturally and developmentally appropriate.
8. **Financial skills:** Works toward budgeting, seeking funding for, and managing the finances of a program or suite of programs, often in collaboration with external partners.
9. **Evaluation:** Works toward using statistical and qualitative tools to measure program effectiveness and impact on all community audiences, including those that have historically been un- and underserved; and using this information to iteratively improve the development and delivery of programs.

Together, these competencies encompass the unique skill set required of library programming professionals.

Project Description and Timeline

This project will take place from September 1, 2020, to August 31, 2021. It will be managed and carried out by the ALA Public Programs Office. As the largest national membership organization in the field, ALA is uniquely positioned to lead a planning project that makes recommendations for future library programming curriculum. Since 1992, the Public Programs Office has worked

ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

to support libraries as places of cultural and civic engagement where people of all backgrounds gather for reflection, discovery, participation and growth.

An important partner in this project will be Knology, a non-profit research organization that produces practical social science for a better world. Knology works to create inclusive, informed, and cooperative societies that can thrive together with the natural systems on which we all depend. As a transdisciplinary collective of over 30 social scientists, writers, and educators, Knology is dedicated to using research to untangle complex social issues. Equity, transparency, and deliberation are the foundation of their work process. In their capacity on this project, Knology will conduct the landscape review of programming course syllabi and present findings to project advisors; facilitate virtual dialogues between MLIS programming instructors and library practitioners; and develop recommendations for the next step in ALA's efforts to create standardized training resources for programming librarians.

- **Q1 (September – November 2020): Planning and landscaping.** ALA will confirm participation of 12 project advisors (listed below) to form the task force. The task force will comprise library practitioners experienced in programming from diverse library and community types; instructors from diverse regions and backgrounds who teach programming courses in MLIS classrooms; and the developers of continuing education programming courses from such institutions as state libraries, library associations, and federal institutes (e.g., the National Library of Medicine). Within each of these groups, we will seek diversity of identity, race/ethnicity, gender, community size and type, and experience. In Q1, ALA and Knology will conduct a landscape review of existing programming curricula to determine if and to what extent existing MLIS courses cover the core competencies that were surfaced during NILPPA Phase 1. Knology will compose a brief synopsis of findings and distribute to the task force.
- **Q2-Q3 (December 2020 – May 2021): Monthly virtual facilitated discussions.** Over the course of six virtual Zoom meetings, and through a combination of small breakouts, pair discussions, and reporting out, Knology will facilitate a series of conversations with the task force. The advisors will be asked to analyze curricular materials and answer questions such as: How do the skills taught in this course translate to a library environment? How do these skills fit into the NILPPA competencies framework? What is currently missing that might prevent the course material from being useful for librarians working on the ground? How could course activities be adapted to better meet programming librarians' needs? What course activities are best suited to learning particular skills? If advisors have former students who went on to work in public programs, what do those students say was the most valuable part of their training? Also in Q2-Q3, task force members will author blog updates based on their discussions. These updates will be published on the NILPPA project website (nilppa.org), ALA's Programming Librarian website (programminglibrarian.org), and other audience-specific websites. Blogs will strive to put the task force's exploration into perspective for various audiences — programming librarians in various library types, MLIS instructors, MLIS students — by considering what these findings mean for each group. We will also use

ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

these blog posts to collect feedback on an ongoing basis.

- **Q4 (June – August 2021): Synthesis, dissemination, and feedback collection.**

Knology staff will synthesize the landscape review and task force discussion into a series of recommendations for a future project grant to develop a NILPPA-informed curriculum for programming librarians. Starting in June 2021, ALA will implement a comprehensive communications plan drawing on ALA's extensive member base, social media networks, e-newsletters, in-person conference opportunities, and other communications channels to disseminate the recommendations and collect additional feedback from the field. The recommendations and resulting feedback will inform our future project grant proposal.

Advisors

If awarded funding for this planning grant, the following individuals will be invited to participate on the task force. These advisors' responsibilities would include analyzing curricular materials; actively participating on six virtual Zoom meetings; reviewing and revising draft recommendations; authoring blog posts based on their discussions; and assisting with dissemination of findings to the library field.

1. Tammy Baggett, director, Durham County (N.C.) Library, and adjunct professor, North Carolina Central University (an HBCU)
2. Judy Bergeron, director, Smithville (Texas) Public Library
3. Terrilyn Chun, deputy director, Multnomah County (Ore.) Library, and advisor, NILPPA Phase 1
4. Emily Crews, reference and outreach librarian, Columbus State University
5. Cindy Fesemyer, adult and community services consultant, Wisconsin Department of Public Instruction and lecturer, University of Wisconsin-Madison School of Library and Information studies
6. Rolf Hapel, Distinguished Practitioner in Residents at the University of Washington's Information School and former Director of Citizens' Service and Libraries for the City of Aarhus, Denmark
7. Susan Hildreth, consultant, Susan Hildreth and Associates
8. Laura Ishizaka, adult librarian, Palos Verdes (Calif.) Library District
9. Jeff Lambert, assistant director of digital inclusion and workforce readiness, Queens Public Library, and chair, ALA's Public and Cultural Programs Advisory Committee
10. Amita Lonial, assistant director, Tacoma (Wash.) Public Library
11. Bobbi Newman, community engagement and outreach specialist, National Network of Libraries of Medicine
12. Dale Savage, head of the Library Development Bureau, New Mexico State Library

ALA representatives (un-stipended):

13. Daniel Freeman, director, eLearning Solutions, ALA

ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

14. Kristin Lahurd, interim director, Office for Diversity, Literacy and Outreach Services, ALA
15. Angela Maycock, program manager for professional development, Public Library Association

Potential risks

Uncertainty around the current coronavirus pandemic poses a potential risk to this project. The pandemic has already influenced our planning grant plans; our preliminary proposal called for an in-person task force convening, but given all of the unknowns regarding the current outbreak and potential future waves of COVID-19, we restructured plans to host the gatherings online.

Of course, we all hope that life will go back to normal in the coming months and in-person library programs will take their place as one of the most critical areas of library work today. In the meantime, libraries are finding new ways to serve their communities while socially distancing; while 98% of public libraries reported building closures to some extent due to the pandemic, 61% have continued, expanded or added virtual programming in the same time⁷. Given what we have learned in the past month, however, we intend to focus one of our six virtual task force meetings on the need to offer our programming librarian training virtually AND for that training to equip library workers to offer public programming virtually to their communities.

Measures of Success

After each task force Zoom meeting, we will prompt advisors with brief evaluation questions by email. Doing so will allow us both to ensure that we are making progress and to incorporate unresolved questions into the following session. Collecting feedback on blog posts on an ongoing basis will also ensure that we are addressing concerns and questions raised by a broader audience of library practitioners.

Project Resources: Personnel, Time, Budget

The ALA Public Programs Office empowers libraries to create vibrant hubs of learning, conversation, and connection in communities of all types. Through programming resources, model programs, grant opportunities and professional development activities, PPO supports libraries of all types as they fill their roles as community cultural centers and places of civic engagement and lifelong learning. PPO currently employs a staff of ten and is advised by the ALA Public and Cultural Programs Advisory Committee.

Members of the staff who will have key involvement in the project are Sarah Ostman (communications manager and editor, ProgrammingLibrarian.org), Hannah Arata (communications associate), and Elena Pepe-Salutric (program coordinator). Ostman will

⁷ Public Library Association. Public Libraries Respond to COVID-19: Survey of Responses & Activities. 9 April 2020. http://www.ala.org/pla/sites/ala.org.pla/files/content/advocacy/covid-19/PLA-Libraries-Respond-Survey_Aggregate-Results_FINAL2.pdf

ALA Public Programs Office

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

supervise project work and communications strategy. Arata will execute communications, Pepe-Salutric will conduct meeting planning and project tasks. Ostman, Arata, and Pepe-Salutric are grant-funded employees. Their allotted time will be spent on this grant, and there will be no conflict with other ongoing duties. Resumes for key project staff and consultants are attached (see attachments, Resumes), and the budget includes a breakdown of staff time devoted to the project.

DIVERSITY PLAN

Libraries play a crucial role in empowering diverse populations for lifelong learning and full participation in a democratic society. This project will take steps toward preparing the next generation of library workers to offer the best possible opportunities for their communities. Equity, diversity and inclusion (EDI) is one of ALA's strategic directions; ALA commits to "addressing, dismantling, and transforming policies structures and bias throughout the organization and the field." In the context of this project, EDI means addressing issues around race, ethnicity, gender and sexual identification; geographic isolation and distribution; demographics of communities served; type of library; and MLIS and non-MLIS library workers. During this planning phase, advisors will discuss successes and shortcomings of existing programming curricula to address equity, diversity, and inclusion, and how programming can be taught more inclusively.

It is also vital to ALA that the project's advisors embody these same axes of diversity. The task force will comprise library practitioners experienced in programming from diverse library and community types; instructors from diverse regions and backgrounds who teach programming courses in MLIS classrooms; and the developers of continuing education programming courses from such institutions as state libraries, library associations, and federal institutes (e.g., the National Library of Medicine). Within each of these groups, we will seek diversity of identity, race/ethnicity, gender, community size and type, and experience.

NATIONAL IMPACT

This planning grant will position ALA to pursue an IMLS implementation grant for creation and distribution of a programming librarian curriculum. The long-term goals are: (1) collaborate with MLIS programs, state libraries, and other library leaders to develop consensus about programming best practices that can be integrated into both MLIS classrooms and continuing education opportunities; (2) fully develop and widely distribute learning resources to the library field for self-directed learning by working library practitioners. The eventual creation of these resources will be a remarkable step toward improving the quality of community-based lifelong learning opportunities nationwide.

This planning grant and future work toward a programming librarian curriculum have a natural home in ALA's Public Programs Office. The project will be sustained through further grant support, and resources will be made widely available to the field via ALA websites, such as nilppa.org and programminglibrarian.org. Drawing on our extensive network and member base, ALA will implement a comprehensive marketing plan to disseminate the recommendations and

ALA Public Programs Office*Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum*

collect feedback from the field. The recommendations and resulting feedback will inform our future project grant proposal. Through our task force members, partnerships will be strengthened between ALA and MLIS programs, programming librarians, and creators of other continuing education materials; buy-in from these individuals will ensure that our project deliverables will be adapted by other institutions and communities.

Outputs of the planning grant will also be shared and made relevant to library practitioners. Task force members will author blog updates based on their discussions for publication on the NILPPA project website (nilppa.org), ALA's Programming Librarian website (programminglibrarian.org), and other audience-specific websites. Blogs will strive to put the task force's exploration into perspective for various audiences — programming librarians in various library types, MLIS instructors, MLIS students — by considering “what does this mean for you?”

BUDGET

The IMLS request of \$99,726 includes \$25,671 for staff salary for three ALA Public Programs Office employees; \$8,472 for fringe benefits; \$300 for supplies, materials, and equipment (Zoom classroom); \$43,666 for contractors and subawards (\$31,666 for research partner, \$12,000 for advisor stipends); \$2,000 for other costs/marketing (marketing, graphics, web operating); and \$19,617 in indirect costs (at an overhead rate of 26.71%).

Skills for 21st-Century Librarians: Task Force for the Development of a NILPPA-Informed Programming Librarian Curriculum

Activity	2020				2021							
	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug
Project kick-off												
Planning and Landscaping												
Monthly virtual facilitated discussions												
Synthesis, reporting, and feedback collection												



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?