

LSDHH's Community Development Model for Deaf Communities**Project Category: Community Catalyst. Funding Category: Project.**

Narrative

Introduction

The Library Services for the Deaf and Hard of Hearing (LSDHH) serves the Deaf, hard of hearing, and deafblind communities, their families (children and adults), sign language interpreters, teachers, students, researchers, and scholars. The library also serves the general public by ensuring that the history and culture of the Deaf community in the United States is preserved alongside the culture of the hearing community and other underserved communities. These services are now only available for Tennesseans, but with this project, LSDHH can serve Deaf, Deafblind, and hard of hearing people who lack knowledge of resources available in their state through a website capable of **access** from all fifty states. This access to information is vitally important to the Deaf Community in the U.S. because there is a void of access to resources. Unlike the Library of Congress NLS Program: National Library Service for the Blind and Print Disabled which provides resources in every state library for people who are blind, physically disabled, or have a certified reading disability, there is no equivalent program for the deaf and hard of hearing. The disparate resources have created a culture of need and caused, among others, parents and educators of deaf children to scramble for resources. LSDHH fills the gap in Tennessee of disparate resources and provides the tools hearing and deaf parents need to provide language and literacy to their deaf children. We ask for support to enhance the LSDHH website

(<https://tndeaflibrary.nashville.gov>)¹⁰ to provide links to needed resources in all fifty states.

This support will 1) build capacity, allowing other states' libraries to provide access to this marginalized population, 2) provide for filming of explanatory videos in American Sign Language (ASL) for Deaf patrons, and 3) fund a researcher/outreach specialist to contact libraries and Deaf Communities in each state for creating and disseminating webpages.

“D” Deaf refers to those who identify with the Deaf Community; “d” deaf refers to a medical condition.

Statement of National Need

Deaf children are graduating nationally at only a 3rd - 4th grade reading level.¹ This is a crisis in the education of deaf children. Early years of language acquisition and literacy are crucial for all children, yet Deaf children face unique hurdles in access to language. For the hearing community, these skills are usually passed down through speech, books, storytelling, and verbal interactions. However, deaf children and their caretakers-- especially in rural communities-- face unique challenges in acquiring these skills. Only 27% of the parents of deaf children learn sign language -- often their own families cannot communicate adequately with them.² These communities have less access to American Sign Language (ASL) courses and other services for the Deaf. The training materials LSDHH provides have been vetted by the knowledgeable and

experienced staff who can advise on quality curriculums to learn ASL and national organizations related to deafness that can be of assistance. However, illiteracy is just the beginning. Deaf children experience significantly higher rates of abuse.³ Deaf adults have a significantly higher unemployment rate than hearing peers,⁴ and they have fewer mental health professionals to handle issues like depression and substance abuse.⁵ These stem from deprivation of language and communication.⁶ The U.S. Supreme Court said:

...education provides the basic tools by which individuals might lead economically productive lives to the benefit of us all. ... We cannot ignore the significant social costs borne by our Nation when select groups are denied the means to absorb the values and skills upon which our social order rests.⁷

Dr. Bushman in the *Children and Libraries* Fall 2020 issue discussed the literacy challenges that deaf children face and the vital role that parents play in providing language and literacy to their children. She says that libraries can partner with parents to provide resources for language and literacy.⁸

In 2019 a Deaf celebrity from the web (*Seek the World*) visited LSDHH to film a segment.⁹ Since then, the library has been bombarded with Deaf people from many states requesting libraries in their states. Traveling Deaf people from Wisconsin, Pennsylvania, and Florida changed their routes so that they could visit LSDHH to learn how to start a deaf library in their states. Calls came from Illinois, Mississippi, and Indiana, asking how they could have what Tennessee has. On the LSDHH Facebook page one patron wrote: “So wonderful to see a library filled with “deaf” related... Is there anyway books could be checked out if I live across the States?”¹⁰ Another wrote: “I didn’t know this library exists which is so so awesome!! I am very much in need for resources for my deaf son but there isn’t much... can you direct me to somewhere...- like this?”¹¹

Then in 2020 the Public Library Association (PLA) conference was in Nashville. One of the sessions focused on equal access. Afterwards, the LSDHH service desk was flooded by librarians from all over the U.S. eagerly asking questions about how they, too, could provide this program to their library patrons.

To meet the need across the nation, and the demand from families and the Deaf Community across the country, LSDHH can build upon the existing website which already serves this need in Tennessee and build capacity to serve the broader national audience with these same resources for this same need. This project will **build capacity** for other states’ libraries to reach this marginalized population, **create access** to resources, and **create lifelong learners** from a community in need.

Project Design

Goals

The goal of the project is threefold: 1) **Provide** a free, **accessible**, relevant, national portal for resources on hearing loss in each state via an interactive national map hosted on the LSDHH website and infrastructure. 2) **Increase capacity** by updating the existing website backend framework and public facing look and feel to serve as a **national** model for **accessibility** by the Deaf community. This project will require an increase in website capacity due to an increase in digital management (internal) and public interaction (external) with the website. 3) Collaborate with Deaf Community members and organizations who will solicit sites to include from their state and identify at least one library from each state who will maintain the state's page once the grant-funded period is complete. This goal will be met by first hiring a researcher/outreach specialist who will find state collaborators from the Deaf Community as well as the library community to maintain the state's page of resources. This person will also research the resources in each state to add to that state's page until the pages are ready to be taken over by the new administrators.

Target Audience

The primary target communities who will benefit from this project are families with deaf children and school officials who are responsible for the education of deaf children. Most other obstacles that the Deaf Community faces stem from these formative years of language deprivation and illiteracy. The secondary target audience is the adult Deaf Community who need access to communication technology, counseling, support groups, and interpreters. A third target community is people who are hard of hearing, late deafened, and Deafblind. By tapping into Deaf-led organizations who already serve these populations in each state, LSDHH will be able to learn about each state's specific resources to share with both consumers and libraries. This networking will forge the foundation of continuing collaboration. The web design is inherently adaptive to meet the needs of each state. The templates created will allow each state to change information that the outreach specialist will initially input, as needed for the patrons of their states. By adding instructional videos in ASL, the website will serve as an example of how to modify or create a website that is accessible to deaf people who learn English as a second language and are functionally illiterate in English.

Design Team

The LSDHH staff will be the primary overseers of the project. They have over 130 years of experience living and working within the Deaf Community. They are engaged in Deaf organizations, both local and national, as well as connected to schools for the Deaf and families touched by hearing loss. They have over 50 years of library experience. Their knowledge and expertise are the library's greatest asset. They have chosen the other experts to work on this project and are committed to its success as they intimately understand the needs of the Deaf across the nation.

Work Plan

The LSDHH current website provides accessible, unbiased, comprehensive resources, for free, to the public. (<https://tndeaflibrary.nashville.gov>)¹² In addition to providing a point of access to the largest collection of print and media materials relating to hearing loss in a public library in the country, the website includes: 1) the TN Directory of Services for People who are Deaf, Deafblind, or Hard of Hearing searchable by region and type of service; 2) a searchable, interactive Events Calendar which allows patrons to post happenings in their areas; 3) Employment Opportunities in Deaf-related fields; 4) links to curated resources within the state and nation that benefit the Deaf, Deafblind, and hard of hearing communities, including abuse hotlines and Deaf AA contacts.

This project will build upon the existing website by re-theming/redesigning parts of the site to include an interactive national map of the U.S., including integration of national resources, in a static format. A webpage for each state will be created as a sub-site of the LSDHH website with a unique URL. A researcher/outreach specialist will be hired to make contacts in every state to collect, verify, and document organizations that serve people with hearing loss for the website. This person will also recruit libraries to participate in partnering with organizations serving the target population in their state and commit to submitting updates to the website after it goes live. Publicity about this new resource/website for each state will begin as the outreach specialist contacts organizations and libraries to solicit their participation. The web developer will create a template that LSDHH will initially populate with each state's unique information, including logos and categorized links to local resources. If a state already has an existing source for this information, an option will be made available to insert this link.

Also, the plan is to enhance the existing website by embedding ASL/captioned instructional videos for each interactive element, creating visual directives (instead of verbal) for the low-language users. It will serve as a national model for website accessibility for people who are Deaf.

Phase 1

Beginning in September 2021 through the end of December, the three prongs of the project will meet the following objectives.

Objective 1.1: The Website

The web developer will prepare the backend infrastructure by updating the existing site and designing a new national map and content interface. This phase includes site planning, needs assessment, wireframe, mock-ups, and customer response workflow. Additionally, the developer will create a placeholder section of the website to input links the researcher/outreach specialist identifies in each state - to be uploaded when the site is ready.

Objective 1.2: Video Development

LSDHH staff will identify the areas of the website that would benefit from a visual explanation to encourage the Deaf community, especially low-language users, to use LSDHH resources.

LSDHH will hire a production company to produce the videos. The LSDHH staff will outline, write, and storyboard each of the anticipated 20-30 videos. The Deaf staff of LSDHH will also provide the ASL explanations.

Objective 1.3: Research and Outreach

LSDHH staff will advertise the researcher/outreach position with Deaf-related organizations like the University of Tennessee Deaf Studies program led by a Deaf Community member; Maryville College with the only community Interpreter Training Program in the state; Gallaudet University, the first Deaf university in the world; National Technical Institute for the Deaf; interpreting organizations; state Councils for the Deaf, etc. Preference will be given to a Deaf individual. The researcher/outreach specialist will be hired, trained and begin work by midOctober. Through the end of December, the researcher/outreach specialist will identify the bulk of national and state resources for each of the states according to criteria established by the LSDHH staff. For example, all resources must relate directly to some aspect of hearing loss. The resources may cater to Deaf, Deafblind, or hard of hearing people by having a videophone on the premises, contracting with an interpreter agency, having video remote interpreting capability, or staff who are fluent in ASL. These resources may be educational organizations, social clubs, employment agencies, technology/telecommunication vendors, libraries, legal services, etc. LSDHH staff will also develop organizational tools to track found links and tools to explain the website with initial contacts.

The LSDHH staff will begin submitting proposals to conferences, promoting the website through national organizations like the American Library Association (ALA) and the Public Library Association (PLA). They will also disseminate within the national Deaf, Deafblind, and hard of hearing communities like Early Hearing and Detection and Intervention (EHDI), which is an organization of professionals and parents of Deaf children; A.G. Bell, a national organization that serves the oral deaf community; and Hands & Voices, an international organization of parents of Deaf children who do not claim a bias in communication mode. LSDHH will connect through their newsletters, listservs, and social media (e.g. Facebook ads).

Phase 2

Beginning in January 2022 through the end of April 2022, the three prongs of the project will meet the following objectives.

Objective 2.1: Website

The web designer will work on new website development including site specific coding and theming design programming, testing and feedback. The goal is to ready the website for uploading state specific information by the end of this phase.

Objective 2.2: Video Development

During this phase, the videographer and LSDHH will film the videos with voiceover. The video company will then edit, polish, and add captioning.

Objective 2.3: Research and Outreach

The researcher will begin finding at least two contacts from each state to commit to collaborating on the website: one contact from a library and one contact from a Deaf organization who will partner. Building this relationship and requiring an annual update to the webpage will ensure that the resources are current and relevant to serve library patrons and community members touched by hearing loss. This may look different for each state, depending on the resources and Deaf culture within the state that is already established. The researcher/outreach specialist will begin uploading the data/resources for each state into the webpage for the corresponding state.

LSDHH will disseminate this project to U.S. libraries in a variety of ways. Contacts have already been initiated with the Kentucky Commission for the Deaf and Hard of Hearing whose website states, “It is our goal to eventually create and maintain a network with all libraries in the state, allowing us to give everyone access to information on deafness and hearing loss.”¹³ The St. Louis Library contacted LSDHH on March 17, 2021, asking LSDHH to share “suggestions and resources for how the St. Louis Public Library can better serve our D/deaf and hard of hearing customers.”¹⁴ As organizations connect to the website, they will be asked to accept the responsibility of updating and sharing the information for their states.

LSDHH will search for a Deaf Community collaborator in each state through Deaf organizations such as Hands & Voices; EHDI; state chapters of the National Association of the Deaf (NAD), which is an organization exclusively comprised of Deaf Community members; Hearing Loss Association of America, which is exclusively made of adults with hearing loss; Deaf social service centers or councils which are different in each state but serve and employ the Deaf Community.

Two website administrators from each state- a librarian and a member of the Deaf Community or community agency- will be registered to directly submit updates to change links on their homepage by logging into their page on the LSDHH website, which is in Drupal. (LSDHH website administrators will approve all changes before they go live.) As the platform evolves, continual upgrades providing a workflow driven, content management platform for publicly contributed resources routinely will be applied. These upgrades will support the primary LSDHH platform which supports the sub-sites. (This proposal includes documentation development that will be sent to administrators about how to use/update the site.)

Phase 3

Beginning in May 2022 through the end of August, the three prongs of the project will meet the following objectives.

Objective 3.1: Website

The web developer will launch the new national interface of the website in June, conduct cross-browser checks, monitor and finalize any necessary changes between May and August. This web developer has a long-time relationship with LSDHH, so he will continue to be the go-to for troubleshooting after the grant funded period.

Objective 3.2: Video Development

During the May through August phase, the videos will be incorporated into the website at the appropriate places.

Objective 3.3: Outreach

The researcher/outreach team member will continue inputting data into the corresponding webpage for each state as well as continuing to find contacts for each state with whom to collaborate. Training of “administrators” regarding the workflow of updating their state’s information will take place during this time period.

The LSDHH staff will continue to submit proposals to conferences to promote the website through national organizations like ALA, PLA, EHDI, Hands & Voices and A.G. Bell. They will also market within the national Deaf and hard of hearing communities like NAD. LSDHH will connect through their newsletters, listservs, social media, and personal connections with these organizations. For example, one of the LSDHH staff is a Deaf Community member who has worked and lived in California, New York, Michigan, Pennsylvania, and Tennessee. She is presently an officer of three Deaf-led organizations. Two of the LSDHH staff are advisory board members for the Tennessee Hands & Voices chapter. One of the LSDHH staff is part of the O.U.R. Children’s Safety Project of the national Hands & Voices parent-run Deaf organization, started a nonprofit to help Deaf children who experience abuse because of the connection to Deaf children who experienced abuse, and authored a book about those children. The director of LSDHH began the program forty years ago and has since been on the board or advisory board of no less than seven local, national, or international organizations serving the Deaf. She is also a member of ALA (presented at one conference) and worked with International Federation of Libraries Association, where she helped write guidelines for serving deaf and hard of hearing people in libraries. Their combined 130 years of Deaf World experience have produced an extensive network with the Deaf Community across the country and into integral Deaf-led national organizations.

They will draw upon their already established networks to encourage collaboration with Deaf families and Community members as well as initiate new relationships with organizations impactful in other states. The outreach specialist with the LSDHH staff will glean from families and organizations which resources in their states are most impactful. Those resources will be included on the state’s webpage on the website. The two collaborators that agree to partner with LSDHH on-going will be able to continue that open communication with families to adjust the information on the webpage in real-time. This work will continue after the grant-funded period and assumed by the LSDHH staff.

Measurements of Success

Initially, each part of the project will be deemed a success upon completion of the technical benchmarks related to re-designing the website and creation of the ASL videos. For the research/outreach piece, we will measure success by the number of representatives in each state we can connect for collaboration. After the grant funding period, success will be measured by how many hits the website receives. An evaluation will be implemented by creating a survey with a pop-up question on the website like, “Did you find this website useful?” or “How can this website better meet your needs?” The webpages themselves are inherently adaptive to change according to resources that are available or known in the state. The webpage links and information can be added to or deleted with information as necessary. LSDHH will update national information and resources which will populate automatically on each webpage.

Indicators of success will include:

- The enhanced LSDHH website will be completed with the inclusion of a national map that includes links of programs and services regarding hearing loss resources in each of the 50 states.
- Number of people engaged in providing website links
- Filling each state’s webpage with appropriate links that represent the programs and services for people experiencing hearing loss available in each state
- Identifying and recruiting at least one library in each state and one Deaf Community member to supply relevant community information and to serve as their state’s webpage administrators
- Number of hits the website receives (after the grant funded period)

The success of this project is largely dependent upon input from partners, intermediaries and individual experts in each state knowledgeable about organizations of and for people with hearing loss - to identify state and local agencies that should be included on their webpage. State commissions and councils for the deaf, state and local rehabilitation service providers, and early detection and intervention programs in each state (all of which have comprehensive networks of people in their fields) will be relied upon to provide resource links. Libraries will be identified with the help of NLS, state libraries, established contacts in several states, and through ALA contacts.

National Impact*From Silos to Engines of Change*

The needs of the Deaf Community are greater than Tennessee’s borders. Illiteracy, language deprivation, unemployment, and abuse are problems in every state to alarming degrees. The National Association of State Directors of Special Education, Inc. says:

When adults do not provide a rich language and communication environment...that is accessible to the child during this critical

period of development, children are more likely to fall behind in the development of their speech and language skills, sign language development, social skills, academic performance and their future career options.¹²

Often organizations serving the Deaf Community work in silos. They may not communicate with each other, or they may work in opposition because of different ideologies concerning modes of communication like oral communication or sign language. Libraries as neutral institutions are perfectly positioned as **community catalysts**, uniting the silos into a network of civic and cultural engagement. By creating a national website that focuses on the common issues to be addressed - language acquisition, literacy, abuse and employment – providing access to resources, the silos can unite to address those issues. Fortunately, the internet knows no borders and can provide resources to remote corners of the U.S. without bias. National legislative efforts [LEAD-K (Language Acquisition and Equality for Deaf Kids), Deaf Mentor, (family-centered, home-based, and curriculum-led early education in the home, ASL, and navigating Deaf and hard of hearing family experiences), and Deaf Child Bill of Rights] are active across the U.S. in an effort to eliminate language deprivation and illiteracy, but until now there is no one-stop-shop to find information that is vetted and unbiased. Families can access those resources through the LSDHH website.

With partners in libraries and the Deaf Community from each state, LSDHH’s website can **increase the capacity** of public libraries to unite individual organizations on common, neutral ground. That includes rural families, Departments of Education and state legislatures. The LSDHH website will **provide access** to the most recent developments in federal legislation that affects this marginalized community, for free.

Reaching our Primary Community

The target communities for this project are families with Deaf, Deafblind, and hard of hearing children and adults; people of any age experiencing hearing loss; professionals working with this population; and library staff.

From the outset, the project is intended to include input from our target communities through a workflow designed to solicit their participation. The primary role of the researcher/outreach specialist will be to establish contacts with state Deaf commissions/councils; local, state, and national Deaf-led organizations; Deaf educational institutions; and organizations serving these populations, to solicit their suggestions for website inclusion and begin to disseminate the website. The LSDHH staff will also be accessing their extensive network in Deaf Communities and families for their feedback and partnership in each state. The design of the website is by nature adaptable for the partners to incorporate their resources. The format will be user-friendly for ease in submission.

To a large extent, libraries are unaware of programs and services in their areas that serve people with hearing loss. This is why the researcher/outreach specialist will also be tasked with

identifying, contacting, recruiting, and training libraries on Deaf-related resources with the intent of introducing the hearing loss community to the library community. By creating connections between libraries that serve as information hubs for this underserved population, libraries will **increase their capacity** to create **lifelong learners** of Deaf children and break the national barrier of the 4th grade reading level. Libraries will be asked to serve as their states' administrators and update information in their state or region on an ongoing basis. State administrators will have log-in access to submit new listings and modify sites listed in their state. (The protocols are already in place on the existing LSDHH website. <https://tndeaflibrary.nashville.gov>)¹⁰ The intent is to build bridges between the libraries and hearing loss communities.

Sustainability

LSDHH and the Nashville Public Library have worked in tandem for over forty years. This long term relationship between the city, state, and Deaf Community serves as an unbiased foundation for supporting and sustaining this service for the nation. LSDHH staff will continue to assume an administrative role with the website and interact with states' "administrators." The website will be designed to send automatic requests for updates to them at least annually. In between these updates, LSDHH staff will monitor broken website links and send notifications for administrators to make corrections.

Conclusion

This LSDHH project is a **community catalyst** leveraging expertise, networks, and infrastructures to strengthen the work of collaborators and community members for civic and cultural engagement and to **increase access** and equity. LSDHH connects the Deaf Community with the needed resources to combat illiteracy, abuse and unemployment. These services are now only available for Tennesseans, but with this project, LSDHH can serve the Deaf, Deafblind, and hard of hearing people who lack resources through a website accessible for all fifty states. This access to information is vitally important to the Deaf Community in the U.S. because there is a void of access to resources. Unlike the Library of Congress NLS Program: National Library Service for the Blind and Print Disabled, there is no equivalent program for the deaf and hard of hearing. The U.S. Supreme Court's Justice Brennan said:

... "education prepares individuals to be self-reliant and self-sufficient participants in society." ...Illiteracy is an enduring disability. The inability to read and write will handicap the individual deprived of a basic education each and every day of his life.¹¹

LSDHH asks for support so that they can partner with families, educators, the Deaf Community, and the general public beyond state borders. **Increased access** to language and literacy resources for the benefit of Deaf, Deafblind, and hard of hearing people will **increase capacity** for libraries, **provide access** to a marginalized population, and inspire **lifelong learning**.

Start | 2021

End | 2022

Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug

Phase 1

Website Infrastructure & Design



Video: Needs & Scripts



R/O Interview & Hire



Identify National/State Resources




Disseminating: Create tools & proposals



Phase 2

Website: Development, testing, feedback



Video: Mazzo will film, caption, edit, voiceover



R/O Contact two people from each state



Review Uploaded data to website



Disseminating: Contacts and Administration



Phase 3


Website: Launch and monitor



R/O Continue contact update, training, & admin



Disseminating: listserv emails, Facebook, newsletters, conferences





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?