Transformation for Libraries: The Futures School

INTRODUCTION

Across the United States, librarians embody core strengths of research, data synthesis, storytelling, and community connection. The Connecticut State Library (CSL) has identified Strategic Foresight as a critical discipline and practice that will tap into these strengths while serving as the vehicle for librarians to transform into collaborative innovators, community motivators, and catalysts. In short, Strategic Foresight is preparedness planning for multiple possibilities. Strategic Foresight includes tools such as assumption and bias modeling, environmental scanning, scenario development, and action planning and has been successfully implemented in for-profits, nonprofits, and economic development organizations. CSL requests \$310,000 in grant funding, matched by \$770,580 from CSL, partners, and participants, to lead a two-year (September 2021-August 2023) grant project partnering with Kedge: The Futures School, to provide training that will equip 300 librarians with a futures mindset and skillset. The trainings will result in the development of adaptable, resilient, and transformative individuals who are able to connect and capitalize on their changing organizational and community environments. With a publicly available and repeatable framework, the participants are encouraged to immediately return to their institutions and communities to embed their learnings. With CSL, Kedge customized its curriculum for an LSTA-funded full-scale pilot with academic, public, and special librarians from Connecticut and New York in June 2020. This curriculum was implemented again in cohorts from Florida, Colorado, Hawaii, Minnesota, and Maryland in the following months.

A. STATEMENT OF BROAD NEED

ALA's "Libraries Transform" public awareness campaign implies both that libraries transform the lives of patrons and that libraries are transforming as organizations. Similarly, ALA's The Center for the Future of Libraries' mission is "to inspire libraries and museums to advance innovation, lifelong learning, and cultural civic engagement." However, there are few professional development opportunities for librarians to learn skills and strategies for innovation and experimentation.

During the IMLS-funded EXCITE Transformation for Libraries grant project, CSL implemented The Futures School Strategic Foresight training as a facilitator component for several cohorts. Well-suited for the IMLS Community Catalysts grant, this project empowers library staff to be proactive agents and to work with collaborative stakeholders towards creating a shared community vision. Together, libraries and communities can collectively change the systems and infrastructure that shape their environment. This program advances the foundational work of CSL's EXCITE program and the independent work of ALA's Center for the Future of Libraries, as Strategic Foresight is a practice that allows us to create functional views of alternative futures and possibilities. The framework of foresight enables us to understand the future along a spectrum of pushing and pulling; the trends and emerging issues we notice today are pushing us forward, and it is in our ability to intentionally identify and create that we pull ourselves towards our future. As Kedge shares, "Underlying the concept of the push and pull of the future is the notion that the future is not something that just happened to us but is instead something we create through the decisions we make. Whether consciously or unconsciously, we are creating the future every moment of every day. Futures thinking enables us to ensure we are doing so in a more purposeful and collaborative manner." As noted by a pilot participant: "This is an opportunity to deliberately shape the future based on knowledge and proven techniques, rather than to react to the future."

CSL has identified Strategic Foresight as a critical discipline for librarians now. The COVID19 pandemic is a real-time threat, forcing adaptive change in the way libraries serve their communities; Strategic Foresight training can provide librarians with the skills to plan for future shifts. As shared by a Florida cohort participant, "It [the foresight training] brings a level of sense to uncertainty, whether globally, professionally or personally. It is a way of looking ahead without stepping back."

The COVID-19 pandemic has exposed our collective lack of preparedness for a crisis of this nature and this scale. Libraries and library staff are no exception; like so many others, we struggle to envision the future of our work. Denise Lyons, Deputy Director of Statewide Development for the South Carolina State Library, agrees and points out that librarians "have many skills that are complementary and valuable to developing both long-term plans and short-term goals for their success, including the ability to review and synthesize information, conduct outreach to different populations, and creatively communicate. Bringing Strategic Foresight training to librarians at both the state and local levels will give them the framework necessary to look at their current situations and make decisions that will better the library no matter which direction the future holds."

Stacey Aldrich, State Librarian for the Hawaii State Public Library System, values the intentional framework and immediate applicability of the Transformation for Libraries: The Futures School program. In her words, "The highly engaging program provided foundations for all of the participants to begin integrating future foresight into their daily professional practice." In fact, "future foresight skills should be a standard practice for our profession, organizations and communities. The time spent understanding the trends, forces and patterns that are shaping our local, state, federal and global worlds enables our profession to work collaboratively with communities to find opportunities to build positive futures." We all want to "ensure that our libraries are ready to adapt and serve the ever-changing needs of their communities."

B. PROJECT DESIGN

CSL will contract with Kedge, a minority-owned global foresight, innovation, creativity, and strategic design consultancy, to deliver ten regional sessions. The Transformation for Libraries: The Futures School program was designed by Kedge in partnership with CSL specifically for libraries and library staff, and it is modeled after The Futures School's flagship Applied Foresight Accelerator program that has been delivered in person and online to multidisciplinary participants (i.e., entrepreneurs, social innovators, practitioners, consultants and beyond) across the globe. The Futures School (https://kedgefutures.com) was the culmination of years of foresight content development and workshop facilitation.

Goals, Outcomes, Objectives:

Goal 1: Create a community of future-focused and future-empowered librarians.

Goal 2: Transform the culture of the library to ensure librarians are community champions equipped to map the future to inform decision-making in the present.

Outcome 1: Library staff will develop the skills to identify and capitalize on emerging trends, weak signals, and changing patterns through tangible models and reusable templates that allow them to apply their learnings immediately.

Outcome 2: Evaluators will assess impact by how librarians operationalize Strategic Foresight to support decision-making and actions, strategy development, cultural transformation, and personal development.

Over 3 days of training, participants engage in an immersive, hands-on, project-based program that exists to democratize foresight skills across disciplines and domains. The curriculum, which showcases the trademarked Natural Foresight® approach, has been delivered to hundreds of leaders in over 25 countries, and has been repeatedly hailed as one of the most energizing, thought-provoking, and actionable programs available. CSL partnered with Kedge to develop the library-tailored training with the following learning objectives:

- Deliver project-based learning experiences that begin to cultivate a futures thinking competency within the library ecosystem. Participants will develop the skills to identify and capitalize on emerging trends, weak signals and changing patterns through tangible models and reusable templates that allow them to apply their learnings immediately.
- Ensure the development of adaptive, resilient, and transformative leaders to successfully position librarians to learn-unlearn-relearn for continued success in spite of a volatile, uncertain, complex, and ambiguous environment.
- Transform the culture of the library to ensure librarians are community champions equipped to map the future to inform decision-making in the present.
- Create "maps of the future" that generate successful strategies, actions, and narratives for the future of libraries.
- Embrace a "long now" mindset a holistic way of thinking that includes the best ideas from yesterday and the most dynamic visions from tomorrow to create robust and successful action today.
- Create a community of future-focused and future-empowered librarians breaking past the status quo.

Project Activities:

CSL will offer ten, 3-day online training experiences for up to 300 total participants from public, academic, school, and special libraries. In these sessions, as tested in the full-scale pilot, participants will work with a library-specific focal issue to produce multiple scenarios for libraries 10-15 years in the future. Each cohort consists of 3 teams of 10 people (30 people per cohort) including different types of libraries, diverse staff, and even relevant stakeholders, who together complete a rigorous program including the following phases:

- **Discover**: an introduction to Strategic Foresight and unconscious bias modeling, an analytical model that promotes the deeper understanding of issues and events by examining their root causes
- **Explore**: identification of trends and emerging issues in society, technology, the environment, the economy, and policy
- **Map**: identification of converging patterns
- **Create**: development of well-crafted future scenarios that challenge conventional wisdom, initiate collaborative dialogue, and create the possibility of genuine transformation

The COVID-19 pandemic has newly impacted our landscape with accelerating and exponential change. Strategic Foresight provides a holistic action-based framework for thinking, approaching, and planning

for the future. The phases in the approach – Discover, Explore, Map and Create – can be used together or leveraged independently in any order, depending on the organizational or community need.

In the peak of the pandemic (June 2020), we were able to pivot the usual 3-day in-person Futures School online, leveraging the same curriculum yet structuring the course design for an exceptional virtual experience. The program is delivered via Zoom and Mural platforms that teach the Strategic Foresight framework in a tangible and repeatable manner. Despite library services on hold with librarians working from home focused on reopening plans, the pilot participants fully engaged and immersed themselves. They leveraged the pandemic as the business case for the training and toolkit. A pilot participant even touted that this was the smoothest virtual training she had experienced.

The Futures School curriculum is delivered in six sessions across the 3-day program. In the opening session, participants will share their background and expectations, and complete an assessment to identify leadership styles along a spectrum, from adaptive to resilient to transformative. The principles and tools of strategic foresight will be introduced, and participants will engage in an interactive visual and media literacy exercises to explore biases and their impact on our ability to effectively research and analyze trends and information. We will collaboratively examine a library-specific issue as a way to begin reimagining with inspiration from sci-fi narratives to suspend disbelief and think beyond our boxes.

On day two, teams will scan across society, technology, the environment, the economy and policy to identify emerging trends and the challenges and opportunities that could be on the horizon. With this research, data synthesizing and connecting, our library teams are laying the groundwork to transform and shape their library futures scenarios. Building on the work, in the final day, teams will create maps for the future of libraries using the trends, patterns, and implications they identified. Each team reports out to the group and then has the opportunity refine, and reframe strategy, outcomes, and actions as they make decisions and set specific goals and objectives for the short-, mid-, and long-term future. [See full curriculum in attachments.]



Past and future participants explain where, when, how, and why they use Strategic Foresight:

- CT cohort participant Melissa Canham Clyne, Director of the Hamden Public Library: "I took up this career after serving as a department head at Columbia Hospital for Women. The hospital did not create its future and went into bankruptcy by the end of the 1990s. My background is important because, along with the Futures Project, it prepared me for understanding that the future is always now... Without the tools and techniques to look beyond our own professional biases to examine and evaluate trends, libraries miss the serendipity of aligning our missions with the possibilities of the future. We stay reactive. We stay imitators. We stay only on the curve, not bending with it."
- Denise Lyons, South Carolina State Library shared: "Libraries do transform in subtle ways each day. However, sometimes those changes are simply fortuitous. The Foresight training will use the tools such as environmental scans, bias modeling, and scenario development so that libraries can see the various paths that these transformations could take, helping the libraries to make deliberate decisions for their future. They will feel comfortable that no matter the direction, they have the plans to lead their organizations successfully."

Beginning in September 2021, CSL will recruit across the country through professional associations, national and regional library conferences, and COSLA. As noted by Timothy Cherubini, Executive Director of the Chief Officers of State Library Agencies (COSLA), in his letter of support for this project, "COSLA and its members stand ready to help in recruitment efforts across the library field." CSL will work with host state libraries and partner agencies to conduct broad recruitment and ensure equity, diversity, and inclusion appropriate to the locale for each of the ten sessions. We are partnering with state library agencies to assist with outreach to different local library systems and associations. Each of the ten regional sessions will have its own timeline for recruitment, outreach, and applications as each session is presented in the time zone of the host region. In Minnesota, the State Library Services recruited from neighboring states and through local library associations. Minnesota cohort participant Maggie Snow, Director of Minitex, envisions building on the Strategic Foresight training and harnessing the energy and forward thinking of her cohort to form a Minnesota network of futures thinkers to tap into when challenges or opportunities arise.

Librarians from all career levels (from any department, professional level, or length of experience) and different types of libraries (urban, rural, public, academic, school, and special) representing diverse geographic and patron communities may apply to participate. We will make special efforts to reach underrepresented populations and recruit from American Indian Library Association (AILA), Asian/Pacific American Librarians Association (APALA), Black Caucus of American Library Association (BCALA), Chinese American Librarians Association (CALA), Prospanica: The Association of Hispanic MBAs and Business Professionals, and REFORMA: The National Association to Promote Library & Information Services to Latinos and the Spanish Speaking, with our goal of having 10% of all participants be of diverse backgrounds across race, ethnicity, religion, gender identity, ability, socioeconomic status, sexual orientation, language and other underrepresented identities. In addition, we are designating one cohort for American Indian librarians and will partner with the American Indian Library Association (AILA) for this session. Within the pilot sessions, we had diverse identities and included librarians, support staff, and external stakeholders.

Applicants will be interviewed by the project team and are expected to commit to the full 3-day training. Commitment is as much about curriculum continuity as it is to the importance of building meaningful relationships with cohort members. In our pilot trainings, commitment was not an issue. The program facilitators personally engage each applicant in a 30-minute introductory call to learn an individual's story and understand what they are looking to achieve. These conversations offer an opportunity to build rapport and answer questions. The insights gleaned inform the curation of the small groups to ensure diversity across demographic characteristics as well as personality and life story.

In cases of geography, for example in rural communities where bandwidth may be a concern, we will work with the host state libraries to address any internet access or other technology issues necessary for virtual participation. In addition, the training and materials will be accessible and as appropriate, consider any special accommodation needs of the participants. For example, the program utilizes collaborative software including Zoom which offers real-time AI captioning. After the trainings, the materials will be publicly available, promoting access to other libraries beyond those that may have had participants. Through these various means, CSL will work toward bringing this opportunity to a diverse and inclusive library workforce and its partners.

Success and Impact through Collaboration:

Strategic Foresight is most effective with a participatory, collaborative approach which is why staff from throughout the library profession are encouraged to engage in this training. More specifically, we welcome not only library staff from a variety of institutions but also encourage our state partners to invite stakeholders who are vital yet not directly involved in the day-to-day operations of the library. We believe the collaboration between libraries and their respective stakeholders enables them to co-create and engage in actionable conversations about the value of libraries today and into the future.

For example, Doug Casey, Executive Director of the Connecticut Commission for Educational Technology, was invited to participate in the Connecticut pilot program. He shared, "The training also spurred my thinking around our Commission's work in leading policy for digital learning for the State of Connecticut. As someone who has contributed to that work for years, you can appreciate the importance of developing plans and programs that can speak to the changing needs of institutions, educators, and learners of all ages. The Futures School will benefit our state libraries and strengthen the planning of other stakeholders in communities across Connecticut as well as state and regional organizations such as the Commission."

Evaluation:

A continuous iterative evaluation of the project will be led by evaluator Joshua Elliott, EdD from TechInPedagogy, who will conduct workshop assessments in a pre-test/post-test format, observations, and interviews of each cohort and training group. These assessments will measure participant perceived competence and growth as it relates to the objectives of the workshops. Dr. Elliott will also review participant feedback related to the design of the workshops and make recommendations regarding workshop design and delivery as needed. Relevant factors include:

- Pre-program communication (Emails, Technical assistance, etc.)
- Materials (Pre-work, the Guide, Templates)
- Project Topic (The Future of Libraries)
- Length of Training

- Technologies Utilized (Zoom and Mural)
- Virtual Engagement (chat, Mural, breakout rooms/small groups)
- Facilitation Style

Assessment of cohort participants will occur at the beginning and end of each training cycle. As with the pilot, feedback from early cohorts will be integrated into the project design for later participants. Project staff will discuss potential changes and refinements during Summer 2021. In terms of performance measurements, Dr. Elliott will assess participants' adoption of the Kedge objectives as described above in Section B. Project Design. He will also report on the specific Performance Measures required by IMLS.

In addition to TechInPedgogy, Kedge conducts a 25-question survey for all participants to assess learnings, impact, and application. The survey asks for success indicators on foresight principles such as trend identification and building maps of the future alongside space for feedback on everything from the foresight tools and methods to the communications, materials, technology platforms, facilitation, and areas for growth. Questions are included about the practice of foresight and its application, desire for continued support, and the potential for recommendation to colleagues. [See supporting documents for evaluation results from previous cohorts.]

Dissemination:

CSL project staff has developed a plan to share learnings and results with the profession through articles, websites, webinars, and conferences. The following communications and dissemination methods will provide opportunities for participants to reflect on and share their learning:

- Individual library or participant social media
- Team presentations at their state and regional library association conferences
- CSL speaking engagements and presentations to share the project and demonstrate implementations
- Professional journal articles and library association newsletter articles
- CSL social media

Project Staff:

Dawn La Valle, Director, CSL Division of Library Development, will serve as project director and contributing facilitator with assistance from Maria Bernier, Gail Hurley, and Ashley Sklar, Library Development Consultants at CSL. Together all have experience in managing multi-year projects funded by federal agencies and private foundations as well as managing the successful pilot project and previous IMLS-funded EXCITE Transformation for Libraries. Ms. La Valle will be responsible for the overall administration including fiscal, procurement, contract oversight, and reporting, and will liaise with state library agencies and associations in other states. Ms. Bernier, Ms. Hurley, and Ms. Sklar will assist with grant management, including timeline and budget, and project communications related to outreach and promotion. The full team will work on recruitment; participant interviews, selection, and cohort formation; and dissemination of project results.

The Kedge facilitation team includes two primary instructors, Frank Spencer, Kedge Founder, and Yvette Montero Salvatico, Kedge Managing Director, and two technical/program staff, Nicole Baker Rosa, Kedge Head of Human Design and Ashley Bowers, Kedge Research and Sustainability Manager. Evaluator Joshua Elliott of TechInPedagogy is an Assistant Professor of Practice and Director of Educational Technology at Fairfield University in Connecticut. He will compile and analyze data from surveys, and he will observe and interview participants throughout the program, as he did as evaluator for the EXCITE Transformation for Libraries project.

C. DIVERSITY PLAN

The inclusion of diverse perspectives is fundamental to any Strategic Foresight endeavor. Moreover, while we may have the best of intentions to create inclusive futures, we run the risk of improperly representing those voices if they are not part of the co-creation. To engage diverse cohorts, our goal is to have 10% of all participants be of diverse backgrounds across race, ethnicity, religion, gender identity, ability, socioeconomic status, sexual orientation, language, and other underrepresented identities. We are designating one cohort for American Indian librarians and will partner with the American Indian Library Association (AILA) for this session.

As mentioned in Section B. Project Design, CSL will recruit nationally through professional associations, library conferences, and COSLA. Working with host state libraries and local partners, we will work to conduct broad recruitment and ensure equity, diversity, and inclusion appropriate for each region of the ten sessions. Underrepresented populations that we will make special efforts to reach and recruit from are American Indian Library Association (AILA), Asian/Pacific American Librarians Association (APALA), Black Caucus of American Library Association (BCALA), Chinese American Librarians Association (CALA), Prospanica: The Association of Hispanic MBAs and Business Professionals, and REFORMA: The National Association to Promote Library & Information Services to Latinos and the Spanish Speaking.

D. BROAD IMPACT

Building Knowledge, Skills, and Abilities:

Our goal is to grow a community of practice among future-focused and future-empowered library staff to expand and transform library culture, ensuring they can be community champions now and in the future. With reference to the Performance Measures required by IMLS, evaluator Joshua Elliott will collect survey data from participants. CSL will report the resulting data to IMLS, add it to the project website, and include it in dissemination materials such as press releases, articles, and social media. Outcomes are expected to be similar to the pilot, in which a majority of participants strongly agreed/agreed that they improved in their ability to:

- Identify emerging trends and weak signals on the horizon.
- Build "maps of the future" from current information and trends that generate successful strategies, actions, and organizational narratives.
- Tap into values and bedrock stories that lead to the discovery of counter trends and next-order possibilities.
- Harness the future to make better decisions today.
- Give me the tools and methods to continue practicing foresight.
- Inspire me to create my personal or professional future.

Maureen Sullivan served as the Interim Connecticut State Librarian last year when CSL led a group of practitioners in a virtual pilot program. She observed, "Participants quickly learned and practiced future-

focused and systems thinking... As scholars and practitioners contemplate what leadership will require in the post-pandemic organization, they point to the importance of futures thinking as a core competency and strategic foresight as a means to develop and practice the competency...This program has the promise of truly creating a cohort of transformational leaders who will have the strategic foresight and tools for leading change that will be so critical to the future of libraries and the people they serve."

Building Practice:

Transformation for Libraries: The Futures School strives to democratize foresight across librarians and library staff, as well as across sectors and partners. To that end, 300 participants will be equipped with a reusable toolkit to fuel their existing and newly prioritized roles, responsibilities, and partnerships. Participants will receive access to the resources that are provided throughout the training, including all templates, slides, and output materials; all of which will be centrally housed and accessible on the CSL's Transformation for Libraries resource guide

(https://libguides.ctstatelibrary.org/dld/FUTURESSCHOOL). Participants are encouraged to make use of these resources for all non-revenue generating purposes. Kedge and CSL encourage creative hacking of these tools, empowering alumni to apply them in a way that makes sense for their library and community going forward.

Futures thinking and foresight competency can immediately impact practice and have the potential to move the systems and infrastructure that define the field. Designed as project-driven cohort work, individuals can subsequently replicate the full group process in their home communities or take individual tools to drive action and decision making.

All CSL library development consultants participated in The Futures School inaugural library training to operationalize futures thinking in their everyday work and practice. Following the pilot, CSL immediately put into practice the Strategic Foresight tool of scenario planning with their Advisory Council for Library Planning and Development's Resource Sharing Committee to approach the longstanding issue of resource sharing among libraries in Connecticut. Together, teams of Futures School alumni developed three unique scenarios. The first was transformational and abundant; the second was market or status quo; and the last was a fortress or a restrictive environment – basically the opposite of abundant. These scenarios highlighted potential partnerships, services, disruptions, and opportunities in resource sharing in the state. The teams described their three future scenarios in a series of public programs for attendees from the state, region, and around the country, and including the Association of Connecticut Library Boards (ACLB) to educate library trustees.

Bradley Bullis, CSL Digital Content and Innovation Coordinator, spoke about the scenarios at the recent Electronic Resources & Libraries Conference with reference to CSL's rollout of SimplyE, a free, opensource e-reader app that allows libraries to make their collection of e-books and audiobooks accessible in one place. Brad told the attendees, "What was notable about these stories is that all three scenario groups, working independently, included SimplyE as a key part of their future vision of resource sharing! This impressed me, and I was pleased to see that SimplyE has become a foundational component to our future vision of libraries in Connecticut."

Sharing this work with the broader library field and beyond is already integrated into the pilot project. Nationally, CSL connects with other state library agencies and library development directors. In

addition, this work has been shared with the Chief Officers of State Library Agencies (COSLA) and informed "The Library of the Future" report by Capgemini (January 2019) designed to support COSLA's leadership in forecasting change while informing and preparing state library agencies with a set of strategic and tactical recommendations for possible futures based on trends in libraries, communities, and society.

Building Sustainability:

CSL will help to further sustain the ongoing project by establishing a state library Strategic Foresight facilitators network, partnering with library associations and other stakeholder groups identifying focus areas in libraries and librarianship to develop scenarios for planning. 80% of those surveyed in the pilot program plan to continue developing their foresight skills, and 66.7% plan to use foresight tools and futures thinking to have an impact (small or large) on transforming libraries.

All participants are invited to join The Futures School Alumni Network, a dynamic online community started in 2015 which includes professionals across industries and demographics as well as the library participants. The Alumni Network affords participants the ability to maintain the connections made during their library-specific session and forge new bonds and expand partnership opportunities with the entire network which spans sectors and continents.

In addition to fostering the networks and sharing the knowledge, the responsibility of sustaining this work beyond the project is in both the hands of CSL and those of the trained, future-empowered library staff. In the words of Irene Padilla, State Librarian at the Maryland State Library, "The timing for this project could not be better. The current pandemic has clearly brought to light the need for library organizations to adjust to a world of volatility, uncertainty, complexity, and ambiguity. The new knowledge and skills gained by the training will be crucial for moving libraries forward."

Schedule of Completion

	Grant Year 1											
	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Recruitment												
Training sessions	1											
Evaluation / Performance measures	1)											
Presentations at library conferences]											

	Grant Year 2											
	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Recruitment												
Training sessions												
Evaluation / Performance measures												
Presentations at library 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?