Narrative: *Huli Honua*   **PAPAHANA KUAOLA**

<div align="center">

Narrative
</div>

Statement of Need

Papahana Kuaola (PK) is a 501(c)(3) nonprofit mālama ʻāina education organization that is located in Waipao, Heʻeia, Koʻolaupoko, on Oʻahu. The property covers an area of 63 acres reaching from the right side of Haʻikū valley into the next valley of ʻIolekaʻa. The site includes office spaces, library, indoor and outdoor programming areas, a perpetually flowing stream, natural springs, numerous loʻi kalo (taro patches), a wetland area, and 50 acres of māla (upland gardens) filled with native Hawaiian and Polynesian plants. PK also has staff on the islands of Molokaʻi and Maui that provide services to Maui County, which includes the islands of Lānaʻi, Maui, and Molokaʻi.

Although Native Hawaiians comprise approximately 26.9% of the State's population, they only account for approximately 26% of students in the Hawaiʻi Department of Education. Reading scores among Native Hawaiian students lag behind total public-school students, averaging 14 percentage points across all grades tested (Hawaiʻi Department of Education ARCH Accountability Resource Center. Accessed April 2016). Furthermore, Native Hawaiian achievement in reading (as measured by the Hawaiʻi State Assessment) declines with successive grade levels (Kamehameha Schools, 2009). As measured by Hawaiʻi DOE's Strive HI Performance System, Native Hawaiian students scored lower than state averages in both math and reading (OHA Native Hawaiian Data book 2015). This is of particular concern for it is a well-known fact that reading and writing (e.g. literacy) are essential skills for functioning effectively in school.

Papahana Kuaola operates a Cultural Learning Center to provide hands-on, standards-based learning experiences and instruction for students, teachers, and the general public. The library at PK was established as a cultural and educational resource for staff and program participants in 2008. It consists of a small but valuable collection of approximately 7,000 books, photographs, pamphlets and posters, cultural objects, and a special collection of curriculum materials that focus on cultural and environmental education. Materials are loaned to educators at public, private, charter, and home schools on Oʻahu and the neighbor islands. Resources are also used on-site by researchers, cultural practitioners, educators, students, interns, volunteers, and program participants. Library programming includes intersessions during fall, winter, and spring school breaks; summer and after-school programs; and community evening cultural literacy activities. Approximately 20,000 individuals from Oʻahu and the neighbor islands have participated in our programs and services this past year. These services include: a monthly cultural workshop; weekly Hawaiian language classes; a weekly Hawaiian chant class; after school, school intersession, and summer cultural programs; and daily self-guided native plant walks. Students and teachers from 60 schools, preschool to college, participate in our culture-based education and literacy programs.

Due to COVID-19, all PK programming was suspended in March 2020 as Hawaiʻi residents were ordered to stay home to avoid infection and slow the spread of the virus. This created a dramatic lifestyle change for our families with their homes now serving as workplaces, classrooms, and daycare/play areas resulting in a blur of home, work, and school life. As teachers mastered virtual learning platforms to deliver lessons at home, they became aware that a learning gap existed. Not all students had the accessibility necessary to successfully transition into virtual learning; lacking computer equipment, internet service or both. Educators quickly realized the need to adjust the mode of access, and moved to develop and provide printed worksheet packets that parents picked up weekly from their school to assure that all students had the ability to continue learning through their home environment.

Staff recognized that our services might proceed during this time and continue to support parents, teachers, and community learning now and, in the future, by converting a number of program activities from a physical to a virtual distance programming format. Staff also noticed an opportunity to address the need for students to increase physical activity and time spent in safe outdoor environments. Additionally, participation in programs such as Huli Honua will strengthen the cultural and familial bonds, which are evermore necessary given current limitations spawned by global events, such as stay-at-home and social-distancing statues.

Huli Honua figuratively speaks of this current time when our world is being "turned upside-down." Because of this unfortunate pandemic, the world as we once knew it, is no longer. It has become immediately apparent that this is a changing era. The tides are turning, and we must move with the tide or risk getting caught in an overturning undertow from which we may never make it out. Our world is changing and so must we. The foundation of our honua is fixed and firm. Hawaiian stories, history, traditions, and culture provide us a link to our past so that we will know where we are going in our future.

Project Huli Honua will address the needs of students, parents, and teachers as we navigate through a new normal. We will develop online Hawaiian cultural, historical, and place-based units focusing on the moʻolelo of Hawaiʻi in order to perpetuate traditional Hawaiian knowledge and methodologies through various digital platforms. Huli Honua supports formal classroom teachers with a comprehensive standards-based curriculum as an online resource that is easily accessible to students through Google Classrooms and various distance learning alternatives. This culture-based literacy project provides a cultural exploration of Hawaiʻi through the moʻolelo, both songs and stories, connected to communities and locations.

Project Design
Huli Honua is aligned with the IMLS goal to promote lifelong learning by supporting learning and literacy for people of all ages through museums and libraries. and the NHLS category, **Educational Programming**. This goal is consistent with PK's mission to create quality educational programs focused on environmental restoration and economic sustainability fully integrated with Hawaiian knowledge in order to exemplify a lifestyle respectful of akua, ʻāina and kānaka (Hawaiian people) for the purpose of preserving and perpetuating the Hawaiian culture and lifestyle. This project will improve the quality of library services to Native Hawaiians by developing needed culture-based resources to support community learning. We will employ a Hawaiian culture-based education (HCBE) approach to a literacy program that will connect traditional Hawaiian moʻolelo to natural resources and cultural practices. Stories and storytelling are a popular tradition not only as a valuable tool to pass on history, knowledge, and culture, but also as a means for community members to bond with each other and their environment. In this way, knowledge will not just be conceptual, but become a lived learning experience, remembered long after the session is over.

The project purpose is to provide library services and programs that support teachers in their delivery of in-class and on-line instruction, as well as family learning at home. Huli Honua is designed to preserve, practice, and perpetuate Hawaiian culture, language and knowledge through increased understanding and appreciation of traditional Hawaiian literature. This will be accomplished through the following objectives, activities, and action steps.

Objective 1: Develop a culture-based literacy program that emphasizes traditional Hawaiian mo'olelo, incorporates Hawaiian values, cultural practices, traditional arts, language, and knowledge.
The Hawaiian culture-based literacy program will have four components.

OLA (On-Line Activity) Hawaiian Culture-based Literacy Experience - This Hawaiian culture-based literacy experience will consist of curriculum and accompanying resources aligned with the Hawai'i Common Core and Next Generation Science Standards. The resources are participant-focused and interdisciplinary. Huli Honua
will focus on Hawaiian culture-based education that will engage learners through a series of informative videos, instructional PowerPoint presentations, age appropriate literary articles, and interactive experiences along with downloadable and printable learning tools. The resources will provide the learner with the opportunity to explore Hawaiian culture through mo'olelo (stories), mele (songs), huaka'i (excursions), and hana noe'au (art), all while connecting to the importance of place and space. Through this digital platform, our organization's hope is to provide a relevant cultural resource to engage educators, families, and children by making learning meaningful, fun, interesting, and accessible. We will develop and provide resources for DOE teachers to integrate HCBE in their online teaching and access to printed packets if digital resources are not available to students.

Mo'olelo Book Boxes - PK staff will select and review traditional mo'olelo and mo'olelo of modern times that are age/grade appropriate and support OLA learning units. A printed and digital book list of selected titles, reading log, and activities will be designed and produced for sharing/distribution with project participants. Books will be purchased, and boxes assembled for in-class use. Books will be mailed directly to the home via mail if school is not in session.

Mo'olelo Monday - Each month a traditional mo'olelo or mo'olelo of modern times depicting the culture, values, language or traditions of Hawai'i, will be shared through this virtual platform. This monthly offering will promote literacy within the home and encourage 'ohana to read and learn together. Staff will select mo'olelo to be shared and identify the PK staff to read each mo'olelo. An activity enhancing each mo'olelo, using materials that are readily found at home, will be developed. Staff will prepare a book list and list of activities and supplies needed by participants. In addition, Mo'olelo Book Boxes equipped with the monthly book and activity will be assembled and offered to each family registered in this activity. Staff will develop the publicity needed to announce this program as well as registration information. Eleven sessions will be produced.

'EKE (Experiential Knowledge-based Education) - *'EKE* is based on a foundation of Hawaiian culture and practices that explores the traditional daily activities of our kūpuna (elders/ancestors) and provides experiential learning through hands-on activities. Designed specifically for 'ohana, *'EKE* will provide families with a comprehensive reading curriculum that supports Huli Honua. Staff will assemble a "take home bag" (an 'eke) equipped with a book depicting the culture, history, or language of Hawai'i and all supplies and resources needed to complete the identified activities. When 'ohana register for this program they will be provided with *'EKE* on a monthly basis along with a reading and activity log to document the number of times each book was read and the completion of the activities provided. *'EKE* will be field-tested with 50 families.

Objective 2: Conduct literacy program activities for 2,350 teachers, students and their families, and communities on the islands of O'ahu, Moloka'i, and Maui.
OLA - PK staff will partner with 50 teachers at 14 schools to field-test this activity. Developed materials will be posted online, teachers will receive training and guidelines for using these online resources, and they will participate in an online survey to provide feedback on the strengths and challenges of the project. Enrichment packets will be provided to teachers for distribution to students that do not have adequate technology in their homes. OLA participants: **50 teachers**, **1,250 students in grades 3, 4, and 5**.

Mo'olelo Book Boxes: Throughout the school year, a traveling lending library containing Hawaiian-based children's literature, and an 'ohana reading list of book titles with library call numbers will be placed in each participating classroom. Book Boxes will remain in each classroom for 3 weeks, allowing adequate time for students to read in the classroom and/or borrow books to read at home with their 'ohana. In the event that some schools do not reopen, students will receive a book, book list, reading log and activity sheet via mail to read at home with their 'ohana. PK staff will select titles sent from the project booklist. At the end of the week students will return the book along with their completed activity sheet via mail. Families will be able to post their book review on PK social media using the hashtag #mymoolelo. This activity supports OLA participants, plus **100** additional **students** on the island of Moloka'i.

Mo'olelo Monday: Through a virtual platform, a traditional mo'olelo or mo'olelo of modern times depicting the culture, values, language or traditions of Hawai'i, will be shared each month on Mo'olelo Monday. PK will conduct and film various staff members and our 'ohana as they read these stories through this virtual platform, revitalizing "Storytime" and bringing our mo'olelo to life. Following each Mo'olelo Monday reading, lessons learned through the mo'olelo will be addressed, as well as staff demonstrating and completing an activity with participants that enhances the story. A book list will be provided as an option to follow along with the readings. A list of activities and supplies will also be posted online. In addition, Mo'olelo Book Boxes equipped with 4 books and activity will be provided as requested to each family. Staff will also collect and process registration information and feedback from participants. Book boxes will be sent and returned via mail or families will have the option of pick-up and drop-off at PK. Mo'olelo Monday participants: **800 families**

'EKE (Experiential Knowledge-based Education): A monthly "take home bag" will be equipped with a book depicting the culture, history, or language of Hawai'i and all supplies and resources needed to complete the identified activities. When 'ohana register for this program they will be provided with 'EKE on a monthly basis along with a reading and activity log to document the number of times each book was read and the completion of the activities provided. Families will have the option to pick up 'EKE on site at Papahana Kuaola. Additionally, families can also schedule a site visit to our 63-acre property to expand 'ohana engagement and hands-on learning experiences. 'EKE participants: **50 families**

All sessions combined, **2,350** participants will be directly served: O'ahu 1,760, Maui 390, Moloka'i 200.

In April 2020, amid the growing concern of the effects of COVID-19 on education, PK conducted a survey addressing the need for online Hawaiian cultural and educational resources and teacher support. 84% of teachers expressed their interest in these resources. The teachers responded that an

overwhelming 90% of their students would benefit from this alternative learning source. It is apparent that there is a definite need for quality online education that will enhance the virtual learning experiences of this wave of emerging digital learners. Of the 51 teachers responding to the survey, 43 expressed interest in participating in field-testing an online unit. Survey included as an attachment (See, Attachment: Supportingdoc2). Since the survey, 7 additional teachers have notified us that they would like to participate as well. We will work with these 50 teachers and their students to field-test Huli Honua.

Leadership of, and direction for PK is guided by a four-person Board of Directors knowledgeable about native Hawaiian culture and natural resources (See, Attachment: Supportingdoc1). PK staff are passionate about their work and enthusiastic about sharing what they know with others. They have expertise in the areas of Hawaiian culture, Hawaiian language, science education, curriculum development, publishing, library and museum studies, information technology, natural resource management, administration, and accounting.

PK has received funding to develop and implement the following similar projects from IMLS: 1) Makaʻikaʻi Moʻolelo a Mele (Story and Song Tour), to provide guided tours that connect the community to place-based moʻoleo and mele of the Koʻolau district of Oʻahu. 2) Ma Ka Hana Ka ʻIke (Knowledge is Gained by Doing), to provide opportunities for the Hawaiian community to learn from cultural practitioners through culture-based community education programs to preserve and perpetuate Hawaiian culture, language, and knowledge. Additionally, PK has published student readers and field guides that interpret moʻolelo for elementary school learners, and teacher resources along with experiences that model ways of integrating moʻolelo in classroom teaching. A list of relevant materials that we have produced is included as an attachment (See, Attachment: Supportingdoc3).

Digital content and products resulting from this project are: activities/worksheets, photos, book list, and learning materials will be in PDF format and posted on a website. Videos and PowerPoint presentations will be created. Social media will be utilized to promote the project, disseminate information, and engage the community.

Impact
The project goal is to preserve, practice and perpetuate Hawaiian culture, language, and knowledge through increased understanding and appreciation of traditional Hawaiian literature via distance learning and in-class instruction. It incorporates distance learning and virtual augmentation to address ongoing global events, as well as increase the ability to reach remote Hawaiian populations.

As a result of the Huli Honua project, PK will have diversified their educational modalities. This is important not only as a reactive measure to current events, but also a necessary evolution to properly address the needs of the community; especially rural communities and those on neighbor islands where resources and educational opportunities are often limited. For, how can our mission and goals be successfully achieved without the proper vehicle? It is expected that this project will promote increased interest in literacy and culture, understanding of the environment, and mālama for the ʻāina, while addressing the critical need to improve access to quality educational programming. Moreover, this will be a stepping-stone to further investigate and expand virtual learning systems and tools, with the intent to create an ever growing, effective and sustainable online resource.

Outcomes and Measures
1. Participants are connected to their Native Hawaiian cultural identity.
   ● 70% of participants will increase their Hawaiian cultural knowledge as determined by participant surveys.

Mo'olelo and place-based projects connect students to their 'āina and promote community well-being. Through the project participants are more likely to feel connected to the Hawaiian culture.

Evidence of Progress
   ● Correctly reproduce content of session. For example: identify ahupua'a and moku where school is located.
   ● Expand upon content of session and/or connect content to other areas of life. Participation in Hawaiian practices and/or mālama 'āina activities in the community or at home.
   ● Teacher and parent observation of increased student knowledge of mo'olelo.

2. Partners, schools, and educators have the knowledge and resources to deliver HCBE.
   ● *70% of participants in Huli Honua will report, via teacher survey, an increase in their capacity to support HCBE in their class.*

HCBE approaches enhance relevance and relationships at school while supporting academic outcomes. In addition to professional development sessions, teachers acquire knowledge and skills through participation in classroom both in-class and online sessions.

Evidence of Progress
   ● Integration of HCBE into their classroom teaching. Utilize resources provided to connect Hawaiian culture to academic subjects.
   ● Expand knowledge and skills in searching and acquiring cultural resources using Hawaiian electronic databases.

3. Students will strengthen their interest in reading, understanding, and appreciating Hawaiian cultural based literature.
   ● *70% of students will borrow books from the classroom lending library and read in class and/or at home with their family.*

We learn from mo'olelo how Hawaiians of old thought, lived, and expressed themselves. They convey important cultural values. Mo'olelo provides students insight into Hawaiian knowledge, reinforcing concepts learned and validating a Hawaiian worldview.

Evidence of Progress
   ● Completion of reading log.
   ● Ability to read and retell a mo'olelo.
   ● Self-reporting interest in reading.
   ● Participation in Huli Honua reading activities.

Additionally, project measures.
   ● 70% of participants increase their understanding and knowledge of mo'olelo as determined by participant surveys.
   ● 70% of participants increase their interest and appreciation of mo'olelo as determined by participant surveys.

Teachers will participate in an online survey via SurveyMonkey to determine overall project satisfaction, the extent of their understanding and interest in moʻolelo and how they have used newly developed education materials in their teaching.

- 80% of teachers indicate overall project satisfaction.
- 80% of teachers approve newly developed educational materials.
- 80% of teachers indicate application of new resources in the classroom per teacher survey.

Success of the project will also be measured by the following impact indicators:
- 2,350 participants directly served.
- 11 storytelling sessions, 45 minutes each, will be produced.
- A website featuring informative videos, instructional PowerPoint presentations, literary articles, and interactive experiences.

Communication Plan
This project will provide services to students, teachers, families, and general community members. The majority of participants will come from underserved communities, particularly those on the islands of Molokaʻi and Maui. Opportunities to participate will be posted on the PK website, Instagram, and Facebook. Families will be reached through Liliʻuokalani Trust, community service organizations, and PK partners on Oʻahu, Molokaʻi, and Maui.

PK works in collaboration with community organizations in the ahupuaʻa of Heʻeia including Kamehameha Schools preschool at Haʻikū, Friends of Paepae o Heʻeia, Ke Kula ʻo Samuel M. Kamakau public charter immersion school, Liliʻuokalani Trust, and Kākoʻo ʻŌiwi to realize the shared goal of restoring the ahupuaʻa of Heʻeia as a cultural preserve to provide educational programs and perpetuate the Hawaiian culture. These organizations, along with Windward Community College, provide services to Native Hawaiians ranging in age from toddlers to kūpuna and form a tight network to disseminate information about Hawaiian cultural events and learning opportunities. All of these organizations and their program participants will be invited to participate.

Project participants will be invited to share their learning experiences with the public on social media and the PK website. Program results will also be shared with the general community. PK will obtain adult audience and stakeholder feedback via an online survey. Project activities and accomplishments will be presented at the annual IMLS grantee meeting. Jessica Von Hauki, Program Assistant is responsible for community outreach, promotion, and dissemination on all islands. She is trained in Public Relations and Marketing by Neenz Faleafine in Website, Instagram, Facebook, Twitter, and Email Marketing.

A documentation of digital collections, software, information systems, or other technology tools will be created. This will be available on the PK website and accessible to students, educators, and general-public. Google Classroom and other Google products will be the primary information system used to relay lessons, activities, and instructions. A digital collection will be created consisting of materials, videos and images owned by PK. This will be provided via hyperlink on all pertinent virtual documents, as well as through the PK website. Components of the digital collection may include: video library of My Moʻolelo stories; PowerPoint library; images related to specific lessons; images related to specific activities; and document library (e.g. reading log, book

list, worksheets, instructions, other learning materials [pdf format]).
Sustainability
Upon completion, continued project implementation will be covered by general operating costs, allowing incorporation of this project in teaching opportunities provided to schools and communities in the years ahead. When schools return to their normal teaching format and schedule, the products developed by this project will continue to be used and serve as extended learning resources for students, families, and teachers. It will reinforce lessons learned in the classroom and provide a deeper understanding of Hawiian culture.

Each year as funds become available, PK will expand library services to other islands and communities on Oʻahu that we do not currently serve. This would involve partnering with other Hawaiian organizations, schools, libraries, and museums to deliver services, hiring new staff to service another island, or sending experienced Oʻahu and/or Molokaʻi or Maui staff to service another island. All of these options will be taken into consideration by the organization.

The active role that PK and other Hawaiian organizations have played in developing culture-based education programs and services, like the project proposed, has contributed to the establishment of the Office of Hawaiian Education (OHE), Nā Hawaiʻi ʻImi Loa (NHIL), and a statewide collaboration between the University of Hawaiʻi-Mānoa Library and Information Science (LIS) Program, Hawaiʻi State Library System (HSPLS), and the Native Hawaiian Library (NHL).

OHE was established under the Office of the Superintendent of the Hawaiʻi State Department of Education in 2015. Nā Hopena Aʻo (HĀ) is a Department-wide framework to develop the skills, behaviors and dispositions that are reminiscent of Hawaiʻi's unique context, and to honor the qualities and values of the indigenous language and culture of Hawaiʻi. PK staff, Penny Martin, Molokaʻi Educator, serves on the Molokaʻi HĀ team.
LIS has been awarded an IMLS, Laura Bush 21st Century Librarian Program to create a library and information science professional development and continuing education program for the purpose of cultural learning and growth amongst the LIS community. Māhealani Merryman serves on the advisory board for this initiative. She is the Founding Director of the Native Hawaiian Library and current Director of the Lelekamanu Library at PK. NHIL is a professional organization that continues to advance Hawaiian knowledge and library practices. One of the NHIL objectives is to improve library and information services for the Native Hawaiian community. Māhealani Merryman serves in a leadership position as a council member.

With the appropriate support and funding, PK plans to continue expanding and improving all digital collections. This would include cataloging and digitizing all finalized lessons and activities. Given unprecedented times and uncertainty of the physical classroom, it is vital that we adapt and create successful pathways that not only provide quality education but also promote Hawaiian cultural bonds that will keep the community strong and moving forward.

Planning and Development	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Huli Honua												
Schedule of Completion -- September 1, 2020 - August 31, 2021												
Phase I: Planning Phase												
Meet with staff to review the project plan and clarify roles and responsibilities	—											
Identify and select Hawaiian moʻolelo that will serve as the focus of project activities	—											
Schedule meetings for the development of the education materials and online resources	—	—										
Contact schools and service agencies to promote project and recruit participants	—	—										
Develop staff training & implementation	—	—										
Phase II: Development												
Build HULI HONUA website	—	—	—	—	—	—	—	—	—	—	—	—
Build Moʻolelo Book Boxes for "In-School" and "At-Home" options		—	—									
Develop online format of OLA and Moʻolelo Monday		—	—	—	—	—						
Identify 50 ʻohana and confirm participating schools to participate in field-testing of 'EKE and Moʻolelo Book Box projects		—	—									
Coordinate readers and film all Moʻolelo Monday "Storytime" and activities		—	—									
Develop content for OLA	—	—	—	—								
Develop 'EKE		—	—	—	—							
Develop activities, reading logs and enrichment packets for OLA and 'EKE		—	—	—	—							
Develop online registration form for use of website resources		—	—	—	—							
Create bookmarks for distribution		—	—	—	—							
Develop assessment and evaluation tools		—	—	—	—							
Phase III: Programming												
Register ʻohana's online				—	—	—	—	—	—	—	—	—
Post Moʻolelo Mondays and activities (1st and 3rd Monday of the month)		—	—	—	—	—	—	—	—	—	—	—
Implement Moʻolelo Book Boxes and 'EKE programs with 50 identified ʻohana				—	—	—	—	—	—	—	—	—
Present OLA online				—	—	—	—	—	—	—	—	—
Evaluate sessions and adjust as needed		—	—	—	—	—	—	—	—	—	—	—
Compile and analyze evaluation data		—	—	—	—	—	—	—	—	—	—	—
Administer participant surveys; obtain written comments				—	—	—	—	—	—	—	—	—
Acknowledge ʻohana and teachers for their participation in HULI HONUA program										—	—	
Present project accomplishments at IMLS grantee meeting										*as scheduled*		
Prepare and submit performance and financial reports to IMLS.											—	—

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?