

WGBH Educational Foundation

**Institute of Museum and Library Services National Leadership Grant for Libraries
Funding Opportunity Number: NLG-Libraries-FY21
Proposal: Creating Targeted Educational Resources in the AAPB
March 2021**

Statement of National Need

WGBH Educational Foundation (GBH) Archives respectfully requests \$213,358 to work with educators to enhance the American Archive of Public Broadcasting (AAPB) on-line digital archive to be more educator friendly and share the methodology with the archival community. Archives hold a wealth of primary sources that could be utilized by educators. Stay at home restrictions, quarantines, and school, library, and museum closures have led to a need for trusted sources of primary source materials that can be accessed from home, along with guides for educators and parents on how to use online primary source materials for distant learning and to supplement curricula (Schwartz, “Flood of Online Learning Resources Overwhelms Teachers”). Archives are also in need of guidance for how to best present their collections online for educators and lifelong learners. According to the Pew Research Center, approximately 75% of Americans have broadband internet service at home (“Internet/Broadband Fact Sheet”). Many educators, and archives, are unfamiliar with how to create and facilitate meaningful online learning experiences (Adams, “Coronavirus ‘confusion’: Teachers Had Little Training For How to Do Online Classes”). In a 2020 survey conducted by GBH’s education department, over one third of teacher respondents indicated they were only moderately or slightly confident in using digital K-12 media resources. This challenge was exacerbated by the shift to remote learning during the COVID-19 pandemic (“Teacher K-12 Digital Media Use Before & After the COVID-19 Transition to Remote Learning”). While use of print primary sources in classrooms has been deeply studied and best practices have been developed, research and recommended methods for using audiovisual archives in teaching is lacking.

Archives and libraries such as the Digital Public Library of America (DPLA) and the Library of Congress have created primary resource sets that have proven to be useful to educators and lifelong learners. These collections have primarily curated textual based materials, rather than audiovisual materials. The Texas Archive of the Moving Image has produced educational resource sets that feature digitized A/V materials from their collection; most sets have an emphasis on Texas’ local or regional history (“Reliable Digital Content for Educators”). In a conversation with the Texas Archive’s Education Curator, GBH Archives learned that the resources have been a great avenue to engage teachers with their collection. PBS LearningMedia with targeted pre-produced resources tied to topics and educational standards for K-12 teaching has also had success in bringing media materials into classrooms reaching an asserted 1.6 million registered educators (“PBS LearningMedia Now Offers 100,000 Digital Resources in Its Library for Educators”).

Public media has been, and still is, considered one of the most trusted sources of information in the US (“For the 16th Consecutive Year Americans Rate PBS and Its Member Stations Most Trusted Institution”). It has a reputation of allowing voices from all perspectives and opinions to be heard, from programs highlighting the experiences of the Black community in the 1960s (“Say Brother”) and the stories of indigenous peoples shared through documentaries (“Vision Maker Media Documentaries”), to radio created by and for the Latinx community (“Participating Organizations: Radio Bilingüe”) and programs documenting the emergence of the modern conservatism movement (“On the Right: NET and Modern Conservatism”). Because public media has historically not shied away from documenting the perspectives and voices on the margins, it can be used today to help teach “hard histories” and connect them to current events, which teachers have found difficult to address in social studies classrooms (Rosales, “Teaching the ‘Hard History’ Behind Today’s News”).

While challenging, teaching traumatic events and difficult histories as part of history education can play a role in shaping students’ identities (*Teaching and Learning the Difficult Past: Comparative Perspectives*). For example, in the wake of the recent murders of George Floyd, Ahmaud Arbery and Breonna Taylor, the public affairs series *Black Journal* (1968-1977) provides context and perspectives on longstanding injustices against Black Americans and other people of color (St. Félix, “Rewatching ‘Black Journal’ Five Decades On”). These “hard histories” of white supremacy, past and present day colonialism, structural racism and others are illuminated in local public media programming and could be elevated through the creation of targeted primary resource sets that provide guidance on teaching these topics, connecting them to present day events, supporting student inquiry, and holding dialogue around them.

During a time in our world when political polarization and upheaval presents challenges to teachers when asked to explain current events, such as the recent violent insurrection at the United States Capitol, archival resources can be used to draw connections (and disconnections) between past and present and can teach students how to identify and use credible sources and evaluate information (“Response: ‘Students Need to DO History, Not Just Listen To It’”). Specifically, having access to archival audiovisual primary source materials from the recent past -- from interviews and speeches to coverage of live events -- can help make history come alive for students and the public. Audiovisual documentation contains the power of visual expression -- of body language and emotion -- characteristics often omitted from textual records and photographs. But many audiovisual archives do not know how best to position their materials for educational use.

Online audiovisual archives in general, and the AAPB specifically, can provide an incomparable resource of primary source materials that could be used to teach numerous subjects from differing perspectives. The AAPB is a collaboration between GBH Archives in Boston and the Library of Congress that preserves significant public media and provides a centralized web portal

for access to the unique programming aired by public stations over the past 70+ years. The collection includes more than 120,000 digitized public television and radio programs contributed by more than 130+ organizations across the country. As a result, the collection contains local content from a wide variety of regions across the country, each with their own diverse viewpoints on topics of national concern. Audiovisual archives with thousands of digital items in their collections, similar to the AAPB, would benefit from additional educational guides and organization of the content, such as by topics taught in American History courses, to make collections useful to educators. Directing educators and the public to key items about commonly taught topics will highlight their potential use in educational efforts. Some possible topics identified by our Education Advisory Committee include: America's changing demographics, impacts of globalization, science and technology, the digital revolution, shifts in social and cultural values, new feminism, political polarization and the rise of terrorism.

The GBH Archives, on behalf of the AAPB, working with educators, plans to improve access to the AAPB collection, specifically for high school and higher education teachers, and lifelong learners. As the collection grows, it becomes harder for educators or the general public to find items of particular interest. Many archives with primary audiovisual resources face the challenge of breaking the whole media resource into bite size pieces for educators. The AAPB collection consists of whole programs that were broadcast and full-length interviews from iconic series such as *Eyes on the Prize* and episodes of *American Experience*. These programs and interviews are usually between 30-60 minutes long, making it difficult for educators to target a specific teaching moment. For example, in an hour-long interview with Rosa Parks she may talk about her role in the NAACP for 10 minutes. If an educator is lecturing about the early organization of the NAACP, they may only want their students to focus on that 10-minute segment, rather than the full hour interview, to understand the point the educator is trying to convey.

The AAPB recently launched a "Share a Segment" feature on the website allowing users to identify 'in' and 'out' points of a segment of a longer media item and share or embed the link to that segment into another online piece of work. With such a vast collection, however, it is challenging and time-consuming for anyone to find and use specific segments. By creating a collection of targeted resources relating to commonly taught and hard to teach subjects, and showing educators how they can use these materials in teaching and research, will help educators use the collection more effectively and efficiently. It will also point to longer resources that educators may assign as a research project, or a collection of resources to be analyzed. This work will help identify resources that PBS LearningMedia producers could utilize and condense into resources for K-12 teachers. These resources will benefit users among the general public by enabling more direct access to primary historic resources related to topics of interest. It will illustrate how other audiovisual archives may better engage educators and the public.

Other digital media archives have materials of value for educators. With rapidly changing events and the onslaught of information, it is important for educators and the public to be able to place current events in perspective. Educators, and the public, would benefit from making connections between present-day concerns and past events. For example, ways that epidemics in the recent past were reported, how federal, state, and local governments responded, and how our society coped. Media archives can provide the educators with resources to understand both connections and disconnections between past and present. Given most media collections cover events from the early 1960's to present day, they, like the AAPB are in a strong position to provide these types of resources for educators, students and lifelong learners.

This project will increase access to the vast materials in the AAPB and help guide educators on how best to utilize media materials. It will also provide educators with a wide variety of resources and perspectives to use in their teaching and for the general public in lifelong learning while creating a model for other audiovisual archives to consider. It will also show educators how to utilize media primary resources from archives to teach specific topics and archives how best to present their collections to enable educational use.

Project Design

The project will support a collaboration between archivists and education experts to develop and implement methods and practices for enhancing the impact of audiovisual archives for education and learning. The project will support GBH Archives staff working alongside education experts both in the GBH Education Department and external educators working in higher education (the Education Advisors). GBH Education has decades of experience in building resources for K-12 teachers as a major contributor and originator of PBS LearningMedia. PBS LearningMedia has over a million teachers registered and is a highly utilized resource for K-12 teachers across the country. The project will engage three professionals from GBH Education Programming (Ted Sicker, Sue Wilkins and a soon to be hired education expert) and two educational professionals from higher ed, Dr. Brenna Wynn Greer, Associate Professor of History at Wellesley College, and the Stanford History Education Group led by Joel Breakstone.

Dr. Brenna Wynn Greer is a historian of race, gender, and culture in the twentieth century United States, who explores historical connections between capitalism, social movements and visual culture. As Associate Professor of History at Wellesley College, Dr. Greer teaches courses on topics in twentieth century U.S. history, including World War II, the Cold War, the civil rights movement, and the broader black freedom struggle, as well as courses on consumerism and visual culture. Her teaching revolves around rigorous analyses of how people experience and shape definitions of gender, race, class, sexuality, and citizenship. An advocate of libraries and archives, Dr. Greer has spoken often on the use of primary sources to teach history and support critical inquiry of the past. She recently collaborated with GBH Education on a webinar titled

“Teach Diverse Stories with Primary Sources and Artifacts” as part of a project with the International Museum of World War II.

Joel Breakstone directs the Stanford History Education History Group (SHEG) at Stanford University’s Graduate School of Education. The Stanford History Education Group is an award-winning research and development group that comprises Stanford faculty, staff, graduate students, post-docs, and visiting scholars. SHEG seeks to improve education by conducting research, working with school districts, and reaching directly into classrooms with free materials for teachers and students. SHEG’s Reading Like a Historian curriculum and Beyond the Bubble assessments have been downloaded more than 10 million times.

Each of the four Education Advisors will create five primary resource sets and each develop five teaching tips on how best to use the primary resource sets. They will also each review five other primary resource sets and teaching tips created by the other advisors. Ted Sicker, also with GBH Education and on the AAPB Education Advisory Committee, will serve as an extra advisor familiar with the AAPB and use of media resources in the classroom.

The project will launch in September 2021 with a series of meetings with the advisors and the educators and scholars from the AAPB Advisory Committees (<https://americanarchive.org/about-the-american-archive/advisory-committees>). The AAPB advisory committees consist of educators and scholars from institutions across the country with expertise in a variety of subject matter from American history and sociology to film studies and computer science to name a few. During these meetings, the participants will review GBH Education’s “U.S. History Table of Contents” currently in development through a pending CPB grant, as well as Advanced Placement history curricula to identify key topics commonly taught in American history and social studies courses. Websites like Learning for Justice and the Center for Racial Justice in Education that focus on “hard histories,” will be referred to. The four Education Advisors will agree on the final 20 topics to create for the project. The Education Advisors will also determine how to shape the primary resource sets for best use, including the core components of each set.

The GBH Archive staff will assist in identifying a selection of resources to include in the primary resource sets and will provide the selections to the education experts for review. Between January and May 2022, the Education Advisors will develop and deliver their resources to the Archives team. After the Education Advisors complete their first primary resource set, the team will meet together to discuss the resources and consider areas of improvement for the specific and future resources to be created. The resources will also be shared with the Advisory Committees for general feedback. In parallel, the Archive team will engage GBH’s Creative Department to scope out web designs for the primary resource sets, using the initial sets to guide design. Between February 2022 and April 2022, Creative will produce design mock-ups for the

primary resource sets and will build in 2-3 rounds of feedback and evaluation from the team. The Education Advisors will also review the website designs to ensure ease of use for educators. The Education Advisors will continue to build their resources once initial feedback is received and addressed and will deliver all resources by the end of May 2022.

Beginning in May 2022, GBH Archives web developers will implement Creative's designs, and a demo version of the new primary resource sets including featured video and audio segments and teaching tips will be available by July 2022.

Between June 2022 and August 2022, the GBH Archives team will publish the primary resource sets on the AAPB website with an anticipated launch near the start of the 2022 school year. Throughout the summer, while the primary resource sets are being prepared for launch, the GBH Archives team will plan for dissemination efforts and will begin reaching out to potential users and education outlets to inform them of the upcoming primary resource sets. Once the new primary resource sets launch in September 2022, the team will engage in broad outreach and dissemination efforts throughout the remainder of the grant project through February 2023. In addition, the GBH Archives team will develop a report on lessons learned from working with educators, and how to create resources from an audiovisual collection that fits educator needs.

The project will complete the following activities over the 18 month project timeline.

- 1) Create 20 primary resource sets consisting of 8-10 items from the AAPB collection. The 20 primary resource sets will be based on themes of commonly taught topics and those of current public interest used in teaching typical American history courses. Topics will be chosen by discussion and reviews, using current educational standards and syllabi as guides with the four Education Advisors. The four Advisors will choose the five topics for the primary resource sets they will create. The Archives team, who are familiar with the collection, will make an initial selection of potential resources for each topic or primary resource set. They will identify 15-20 items. The Advisor responsible for the topic primary resource set and teaching tips will make the final selection of 8-10 resources for each set.

- 2) Create 20 teaching tips for each primary resource set on how an educator might use the AAPB collection, and the specific primary resource set to teach the topic. The Education Advisors will create and review teaching tips. The teaching tips may consist of teaching questions, possible student activities, and the topics the primary resource set can be used for. A sample teaching tip created by three people from the AAPB advisory committee on Supreme Court cases is in the appendix. Each of the primary resource sets and teaching tips will be reviewed by one of the other Education Advisors.

- 3) Develop the website features and user interface designs for display of the primary resource sets and teaching tips. The GBH Creative department will work with the GBH Archives team

and Education Advisors to develop new primary resource sets and teaching tips designs for the AAPB website. Input from Education Advisors will help guide the design. Using an iterative design, prototype and evaluation process, the AAPB developers will implement the final designs and new features on the website.

The GBH Archives developers are well experienced in creating websites and installing web designs. They have successfully launched and maintained the following websites for the GBH Archives: AAPB, Open Vault, Boston Local TV News, and GBH Stock Sales.

4) For outreach the project team will promote the new primary resource sets through appropriate educational events, online publications, webinars, the AAPB newsletter, social media, and through the advisory committees. The team will produce promotional materials such as informational handouts, printable posters, a template slide deck and a tutorial video with information about how to use the primary resource sets. The team will also contact state education departments as well as the education and outreach staff at all AAPB participating organizations to encourage use of the primary resource sets in local communities. The project team will disseminate the primary resource sets to professional organizations such as the National Council for the Social Studies, Organization of American Historians, and American Historical Association. Education Advisors will use their avenues of communication to promote the project through their communities. All efforts will be documented, assessed for impact, and reported on to the archival and library communities.

The Project Director and Project Manager will assure that all steps in the project plan are met on schedule and will monitor the budget in coordination with the Business Manager and GBH's Grants Team.

The team will use IMLS' four performance measures to ensure that the project is effective, efficient, of high quality, and timely. The team will quantify **effectiveness** by the number of educators that use the resource sets and teaching tips measured by traffic to the primary resource sets and teaching tips. To evaluate **efficiency**, the team will compare costs against budget estimates. To evaluate **quality**, the team will gather feedback from educators, librarians and archivists about whether the resource sets and teaching tips are easy to use, cover key topics, and engage students. The team will evaluate **timeliness** by comparing project milestones against the plan presented in the proposal.

Google Analytics is an efficient tool to measure the increased activity and the number of users engaged with the primary resource sets on the website. Project success will be measured by the following criteria:

- The number of visits to the item page, the primary resource sets and the teaching tips will measure effectiveness of outreach.

- The length of time spent with the content, will help measure engagement.
- References to the AAPB on other educational resource websites or archives will be tracked along with mentions, links and tags on social media, journal articles, and archival and education blogs.

A survey will be sent out to public and academic librarians and educators to evaluate whether and how the primary resource sets were used in reference, course development, and instruction. Feedback on the quality of the primary resource sets and teaching tips will also be gathered.

The team will compile and evaluate the data gathered and will improve upon primary resource sets where possible when any substantial issues or improvements are identified. Recommendations for improvements and results of work with educators will be reported back to the archival community to help enhance other collections of their potential educational value.

National Impact

The project will support archives, libraries, educators, students and lifelong learners by showing how to provide new, efficient access points to digital audiovisual collections that will enable deeper and richer teaching and learning experiences from online access. The primary resource sets template could be used across a broad range of archival collections and classes. These tools, documentation and strategies could be replicated and expanded upon by other digital libraries. Feedback from educators about the primary resource sets will inform future iterations of primary resource sets and teaching tips. Primary resource sets of programs or clips that address a particular theme or topic will be available for educators and the general public.

Providing easier access to the wide variety of perspectives of content in the AAPB on any given topic will increase public awareness of differing points of view across the country. A local story about healthcare in Kansas can be compared to and reflect the differences of a similar local story from a station in the Northeast or the Southwest. Such awareness of differing perspectives can help bridge communication gaps in our country, help make connections between past and present day events, support better understanding of challenges and crises we face today, and ultimately promote greater civic engagement. Creating links from past events to current day issues for educators to use will put current events into perspective -- an important component in the education of our democratic citizenry. Central to this effort is GBH's commitment to elevating the voices of historically marginalized people and communities, which will be a key component to this project in selecting topics and specific content for inclusion in the primary resource sets.

The AAPB will perform outreach to archivists and educators through GBH and public media connections which are deep into the archival and educational community. The project products will be available as Open Educational Resources (OER) and assigned Creative Commons licenses and placed on appropriate educational resource websites. The project team will share the

primary resource sets with collaborating education organizations including the American Federation of Teachers' (AFT) ShareMyLesson, the National Humanities Center's Humanities in Class Digital Library, and PBS LearningMedia, making the primary resource sets discoverable by educators who access any of these content portals. Stanford History Education Group and Facing History and Ourselves will also share the primary resource sets with their constituents, and the team will reach out to programs like Educating for American Democracy, New American History, the Library of Congress' Teaching with Primary Sources initiative, Learning for Justice, the Center for Racial Justice in Education, the American Library Association, the Public Library Association, and Association of College and Research Libraries, to share the primary resource sets and encourage broader use.

To date, more than 100 public and academic libraries have included the AAPB in online database/resource lists and general LibGuides at their institutions. Through this project, the GBH Archives team will conduct outreach to known libraries that have highlighted the AAPB in such ways to share the primary resource sets and encourage them to incorporate the primary resource sets into more specific course LibGuides that are relevant to the curated topics.

This project will result in online learning resources free of charge and accessible to anyone with internet access, creating teaching tools for school districts and families across the socioeconomic spectrum, as much as possible in consideration of the rural broadband digital divide. The project team will commit to ensuring inclusive representation of the broad diversity of perspectives when creating the primary resource sets and will engage its Education Advisors in selecting and highlighting content in the archive that elevates the voices of historically marginalized or underrepresented people, communities and opinions. Understanding that online learning already heightens barriers for people with disabilities, the project team will produce primary resource sets and features that are accessible in accordance with Web Content Accessibility Guidelines (WCAG) 2.0 standards and Americans with Disabilities Act (ADA) guidelines. The project will impact the broader audiovisual archives community in two ways: 1) by providing a replicable model for engaging educators to enhance the use and impact of A/V archives collections in K-12 and higher education, and 2) by providing a demonstrated effort for A/V archives to support critical teaching and learning around hard histories documented in our collections. The Archives team will share all project results, including resource templates, successes and lessons learned, to ensure widest reach and impact for libraries and archives.

In addition, the project will include educators and advisors of diverse backgrounds in order to ensure voices of marginalized and underrepresented are included in the selection process of the topics to be covered, the resources included in each primary resource set, and the perspective of the guides. GBH is committed to the long-term sustainability of the AAPB. Furthering the educational value of the AAPB collection fits squarely in the core mission of this institution and will continue to be supported beyond this project.



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?