

Richland County Public Library
“FRESH FOOD, FRESH THINKING”

ABSTRACT

Richland Library seeks a \$50,000 planning grant to create an innovative model of learning and entrepreneurship for rural communities struggling with poverty; lacking access to fresh food; experiencing low rates of high school graduation; and lacking access to economic and job development opportunities. As project lead of *“Fresh Food, Fresh Thinking: An Innovative Approach to Youth Development and Learning in Rural Communities,”* we plan to explore unconventional partnerships that support the potential development of a Farmers Market/Public Library hybrid facility to be designed by high school students with the Farmer’s Market being managed by them.

This planning grant will expand our partnership with rural Lower Richland High School (LRHS) and expose students to a variety of disciplines and methodologies used to solve community problems, create business opportunities, and to make the connection between agriculture and architecture. The final product of *Fresh Food, Fresh Thinking* will be the student-led design of an innovative approach to expanding access to library resources and providing a solution to challenges common to rural communities.

We believe the Farmers Market/Public Library hybrid facility in Lower Richland County has the potential to be a national model designed to assist rural communities struggling with poverty, food insecurity, unemployment, access to broadband and lack of transportation by creating a local vibrant place of learning, access to fresh food, and a strong community asset.

We seek to explore a replicable framework for libraries to be a catalyst to enhance life in communities with innovative, cost-effective partnerships throughout rural America. This approach—to have students thoroughly engaged and leading the design of a desired service and facility to meet a community need—is a new level of community engagement for our library, and we believe it will be novel to many public libraries across the country.

With the documentation and broad sharing of the results of *Fresh Food, Fresh Thinking* our intent is to inspire public libraries to think holistically about the way their buildings act as community anchors—especially in rural communities—and to deepen their partnership with youth, seeing them not only as recipients of services but also as designers of services. We’d love to apply this approach—of working with students to solve community problems—to other issues and with other high schools in our community.

Project outcomes are student and partnership focused and include the following:

- 1) Participating students and partners will increase understanding of entrepreneurship, and the connection between agriculture, architecture and sustainable communities.
- 2) Students will be able to apply design thinking, community engagement and expertise to the development of a solution for rural community problems of food scarcity and lack of access to libraries.
- 3) The library will be better prepared to engage our community and maintain ongoing relationship with community partners.
- 4) Students will turn ideas and concepts into a business plan/model and design concept for a Farmers Market/Public Library.

1. Statement of National Need

Richland Library seeks a \$50,000 planning grant to create an innovative model of learning and entrepreneurship for rural communities struggling with poverty; lacking access to fresh food; experiencing low rates of high school graduation; and lacking access to economic and job development opportunities. As project lead of *"Fresh Food, Fresh Thinking: An Innovative Approach to Youth Development and Learning in Rural Communities,"* we plan to explore unconventional partnerships that support the potential development of a Farmers Market/Public Library hybrid facility to be designed by high school students with the Farmer's Market being managed by them.

This planning grant will expand our partnership with rural Lower Richland High School (LRHS) and expose students to a variety of disciplines and methodologies used to solve community problems, create business opportunities, and to make the connection between agriculture and architecture. The final product of *Fresh Food, Fresh Thinking* will be the student-led design of an innovative approach to expanding access to library resources and providing a solution to challenges common to rural communities.

We know that this planning grant and the topic it addresses is of local and national interest and importance. The report "Why Rural Matters 2014," on the condition of rural education across 50 states, concluded that over 9.7 million students (more than 20% of all public school students in the U.S.) are enrolled in rural school districts, more than two in five live in poverty and more than one in four is a child of color. South Carolina was ranked as the third highest priority in terms of the need for policymakers' attention to rural education, "stemming mostly from the diversity of the state's student population and from the severe socioeconomic challenges facing families in rural areas."

Of every 100 students in South Carolina, 40 attend school in a rural district, and 16 of those identify as minority students. Students in the state's rural schools performed among the lowest third of states in the U.S. in math and fared even worse in reading. South Carolina adults in rural areas face the second highest unemployment rate in the nation, with almost one in ten unemployed.

A local example of this disparity is found in the rural community of Hopkins, South Carolina, home to our key partner, Lower Richland High School (LRHS), where student enrollment drops by nearly half between the 9th and 12th grades, indicative of a high dropout rate. Only a mere 57 percent of those remaining in school pass the state exit exam. For end of courses testing, only 45.5% of students scored 70% or above on all subject areas as compared to the state's average of 77.3%. These statistics are symbolic of Hopkins per capita income of \$24,537, and where 66 percent of the student body lives below the poverty level. This community is positioned between two library locations - one is 6 miles away; the other 13 miles - and it has only one grocery store available to those with transportation.

Most rural communities are considered food deserts and food insecure, lacking food retailers and limited access to fresh, affordable nutritious foods that support an active, healthy life. Consequently, a USDA article on "Rural Poverty and Well-being" reports rural communities have a high incidence of concentrated poverty that contributes to poor housing and health conditions, higher crime and school dropout rates, as well as employment dislocations that become self-perpetuating.

The USDA's article, "Rural America at a Glance 2015," tells us that rural poverty is highest among minority racial and ethnic groups, more so with female-headed families. It also reports that rural unemployment rates for the least-educated adults are higher and grew more during the recession, partly as a result of increasing demand for more highly skilled labor. The *Center for Rural Strategies* reports that broadband is not a luxury; it's a necessity as a building block for healthy communities. Unfortunately, less than half of rural adults have access to broadband at home, while two-thirds of metropolitan adults do. Additionally, in these rural neighborhoods, the only available and affordable food is from fast-food chains and convenience stores, which generally do not offer healthy options. This lack of access to fresh food is a chief factor in the rise of obesity and diet-related diseases.

For the past two years, using a modified Harwood method, we conducted needs assessments throughout the county, including the Lower Richland community. The framework of Listen, Learn, Respond was utilized to ensure that our library designs and services reflected the needs and aspirations of each community. Through this process, the Lower Richland community identified a need for library services that are easily accessible for residents who lack reliable transportation and employment services. We also know that according to the [USDA](#), "the number of farmers markets in America has grown by 76% since 2008. The data reflects continued demand and growth of farmers markets in every region of the country." Yet there is not a permanent, reliable farmers market option in Lower Richland.

We believe the Farmers Market/Public Library hybrid facility in Lower Richland County has the potential to be a national model designed to assist rural communities struggling with poverty, food insecurity, unemployment, access to broadband and lack of transportation by creating a local vibrant place of learning, access to fresh food, and a strong community asset.

2. Project Design

Richland Library is a trusted community anchor with demonstrated expertise in meeting community needs. Examples of this include our teen programming focused on 21st Century skill-building, entrepreneurship, and college and career preparation; our libraries serve as summer feeding sites; we partner with FoodShare Columbia, which provides healthy food boxes for SNAP participants, while we offer cooking classes, free food boxes and kitchen equipment; and we have a thriving community garden at one location with plans for more.

We seek to build upon our partnership with LRHS that began in 2015 with the ConnectEd Library Challenge Initiative, in which all students in this school district received a library card. This past summer, Richland Library opened and staffed the school library at LRHS to provide the community with greater access to library resources and computer usage for the entire summer. This blossoming partnership and the community's desire for expanded library services are what led to this innovative Farmers Market/Public Library hybrid concept.

LRHS is well-positioned to integrate this project into their curriculum. Since 2015, LRHS has had a [Lifecycle Innovation Project](#) through which it dehydrates and composts waste from the school and uses the results to fuel the vermiculture process - producing worm castings fertilizer. LRHS has worked to

restore its greenhouses with a solar array and plans to use their own fertilizer to grow fresh produce. They plan to utilize Project-Based learning among several STEM disciplines and culinary students to work with teachers and library staff to harvest the crops, cook and sell the yield. *Fresh Food, Fresh Thinking* will enhance and broaden students' learning experiences by exposing students to experts in agriculture, architecture and entrepreneurship to provide an opportunity to apply knowledge learned to solve a real community problem.

Fresh Food, Fresh Thinking will create a project-based educational opportunity for LRHS youth, and ultimately, an unconventional space that serves as a Farmers Market/Public Library hybrid facility. During the 2017-2018 school year, we envision youth leading the design and development of the space and the business plan, thus gaining invaluable, hands-on experiences that sustain their interest in school and learning. We envision the partners and community at large informing and supporting the students' vision. This project is a fresh, groundbreaking approach for a public library to partner with local youth to create a solution to challenges common to rural America.

With the library as convener, we will engage a host of partners and experts— the Association for Rural and Small Libraries, Clemson University, South Carolina Farm to Institution, local farmers, and the local faith community—*Fresh Food, Fresh Thinking* will explore the following questions for libraries across rural America:

- ✓ Can this model be a replicable framework for libraries to be the catalyst to bring diverse people and partners together to solve community problems?
- ✓ Can libraries apply the success and lessons learned from existing models that do not include the library as a partner to benefit the project?
- ✓ Is the Farmers Market/Public Library hybrid approach one that can meet multiple needs of rural communities and engage key stakeholders? And,
- ✓ Can libraries help to create a youth entrepreneurial and small business development approach to solve community problems?

The LRHS students enrolled in Project-Based Learning Interdisciplinary Coursework will participate (see attached supporting document #4 featuring a matrix of teachers, subject matter and student enrollment). The *Fresh Food, Fresh Thinking* initiative aligns with the goals and outcomes for several areas of coursework and fits comfortably within the school year, June 1, 2017 through May 31, 2018.

Project outcomes are student and partnership focused. Quarterly assessment of data collection and students' coursework evaluations will monitor progress and inform course changes. Outcomes and indicators include the following:

- 1) Participating students and partners will increase understanding of the connection between agriculture, architecture and sustainable communities.
 - a) Students will demonstrate goal achievement through the curriculum's assessment and evaluation of coursework.
 - b) Additional data may be collected through pre- post- surveys and interviews.

- 2) Students will be able to apply design thinking, community engagement strategies and expertise to the development of a solution for rural community problems of food scarcity and lack of access to libraries.
 - a) Students will demonstrate goal achievement through the curriculum's assessment and evaluation of coursework.
 - b) Additional data may be collected through pre- post- surveys and interviews.
- 3) The library will be better prepared to engage our community and maintain ongoing relationships with community partners.
 - a) Library staff certified in entrepreneurship and other fields of expertise will be viewed as valued contributors by school faculty and key stakeholders.
 - b) Library staff will better understand the curriculum development process and be better prepared to partner in the future.
 - c) Data will be collected through pre- post- or retrospective-post surveys, focus groups and interviews.
- 4) Students will turn ideas and concepts into a business plan/model and design concept for a Farmers Market/Public Library hybrid facility.
 - a) Students will demonstrate subject matter expertise as they present their models and plans to key stakeholders and the community at large.
 - b) Students will demonstrate goal achievement through the curriculum's assessment and evaluation of coursework.
 - c) Students, key stakeholders and partners will view the library as a critical resource and active contributor to address community needs.
 - d) Data will be collected through surveys and interviews.

Key project activities and timeline include, but not limited to:

June-August 2017:

- ✓ Hire Project Coordinator
- ✓ Implement Communication Plan and timeline
- ✓ Curriculum development with key library staff, consultants and partners
- ✓ Coordinate team meetings with key library staff, consultants and partners, engage advisors
- ✓ Design surveys, create evaluation matrix, communicate outcomes, develop progress monitoring strategies

September-November 2017:

- ✓ Conduct Student Workshop - Intensive Design Thinking Approach to Problem Solving
- ✓ Facilitate Community Conversations with key stakeholders
- ✓ Consultants instruct and mentor students in their respective areas of expertise
- ✓ Host webinar to share project's interim milestones

- ✓ Coordinate team meetings with key library staff, consultants and partners, engage advisors
- ✓ Documentation of progress/process as described in the Communication Plan
- ✓ Review student coursework evaluations to inform course corrections
- ✓ Data collection analysis to inform project deliverables and course corrections

December 2017-February 2018:

- ✓ Students' application of Design Thinking Across Curriculum
- ✓ Entrepreneurship Training (certified library staff and YEScarolina) for students
- ✓ Consultants instruct and mentor students in their respective areas of expertise
- ✓ Coordinate team meetings with key library staff, consultants and partners; engage advisors
- ✓ Review progress and timeline of the Communication Plan
- ✓ Documentation of progress/process as described in the Communication Plan
- ✓ Host webinar on topic relating to project development and content
- ✓ Project monitoring assessment, review student coursework evaluations and celebrate student milestones.

March-May 2018:

- ✓ Students' application of Design Thinking Across Curriculum
- ✓ Consultants instruct and mentor students in their respective areas of expertise
- ✓ Coordinate team meetings with key library staff, consultants and partners; engage advisors
- ✓ Documentation of progress/process as described in the Communication Plan
- ✓ Host webinar on project accomplishments and lessons learned
- ✓ Student presentations of models and plans to community and key stakeholders for feedback
- ✓ Data analysis and preparations for final report
- ✓ Project leads compose journal submissions and professional presentations to share broadly

We are eager to teach young people how to lead this community engagement work, analyze and apply the results to meet a real community need. In addition, we have developed a program model called "Library as Studio" that we have shared widely, both nationally and internationally. We developed this model using a human-centered design approach and believe that design thinking methodology can easily be incorporated into the curriculum that we develop with LRHS students. Also, Library as Studio was built on the concept that libraries should assist their customers in progressing through a cycle we call "learn, create, share."

Fresh Food, Fresh Thinking will apply this cycle throughout the planning grant as the students share what they've learned and the plans they created with the community at large. This initiative also includes the following components:

Applying best practices and relevant theories: The curriculum for *Fresh Food, Fresh Thinking* will be built on a Project-Based Learning (PBL) framework. PBL is an instructional model that involves students learning through the process of solving a problem or completing a task that mirrors what professionals would encounter in their work. In addition to learning the content standards, PBL provides an opportunity for students to gain the communicative, collaborative, and critical thinking skills that are

essential for career success.¹ Because these projects often involve multiple subject areas, the interconnectedness of content that is typically taught in isolation is highlighted in PBL projects, allowing students to better transfer knowledge, methods, theories and themes between seemingly unrelated subject areas.²

Student Educational Programs: Working with the STEM Coordinator/Lifecycle Innovation Project lead, we will develop multi-disciplinary, in-school programming for the 2017-18 school year that is embedded in the culinary, art and design, engineering and architecture, STEM, marketing and entrepreneurship courses offered at LRHS (see attached supporting document #4 featuring a matrix of teachers, subject matter and student enrollment). With qualified experts on our team, we will help youth explore small and agribusiness development concepts, community engagement strategies and architecture. This approach is aligned with the S.C. State Department of Education endorsed “Profile of the South Carolina Graduate” curricular framework for all educational programs in the state. The *Fresh Food, Fresh Thinking* project will provide participating students with hands-on experience in communication, teamwork, critical thinking, and innovation – at the same time, developing employable characteristics, such as perseverance, good work ethic and strong interpersonal skills. What the students would gain from participation in this project would be critical to their success in life, regardless of career choice.

Farmers Market/Public Library Concept Development: Clemson University’s architecture faculty member and a local architecture firm will work with the LRHS staff and students to turn the ideas and concepts discovered through this planning grant into a design. We anticipate the design will expand access to learning for the entire community and potentially include specialized culinary classes; nutrition and food preparation; agribusiness and entrepreneurship; along with access to library resources and fresh food offerings from local farmers and the students.

Community Engagement: We will hire a part-time project coordinator who will act as liaison between LRHS and Richland Library and will provide support as we facilitate focus groups and community conversations. The project coordinator will work closely with the data analyst to gather information that will inform the concept development, course corrections and deliverables. The project lead will oversee implementation of the Communication Plan and meet regularly with consultants, partners and advisors (listed on page 7). Richland Library will regularly convene stakeholders to review data, vet findings and refine efforts.

In addition to Richland Library and LRHS having internal expertise, access to key partners, experience in community engagement, service design and library design and construction, this planning grant is inspired by three successful models that have at their core youth development, agribusiness and

¹ Bell, Stephanie. "Project-Based Learning for the 21st Century: Skills for the Future." *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 83.2 (2010): 39-43. Web.

² De Graaf, Erik, and Anette Kolmos. "Characteristics of problem-based learning." *International Journal of Engineering Education* 19.5 (2003): 657-662.

innovative joint-use partnerships: [Mill Village Farms, Colleton County Museum & Farmers Market](#) and [Windsor Super Market](#).

Although none of these models include a library as a partner, we believe that libraries are key to developing revolutionary solutions to the challenges of rural, poor communities while engaging youth as leaders in the process and can learn from other successful models. To this end, we intend to engage Dan Weidenbenner, Executive Director, Mill Village Farms, and Gary Brightwell, Director, Colleton Museum & Farmers Market as advisors for *Fresh Food, Fresh Thinking*. In addition, we will engage the expertise of Amy T. Weaver, S.C. Farm to Institution Director with S.C. Department of Health & Environmental Control and Molly Crete, Vice President of Programs for YEScarolina, Youth Entrepreneurship South Carolina. We currently collaborate with these organizations and are eager to enhance and expand these partnerships for greater community impact. Further enhancing our team of advisers is a true expert in the field, Judy Calhoun, President of the Association for Rural and Small Libraries, (see attached supporting document #5) will provide invaluable advisement as this project gains momentum.

We are particularly excited about our two consultants committed to the success of this project (see attached supporting documents #1 and #2). **Sallie Hambright-Belue**, is an architect and assistant professor in the School of Architecture at Clemson University. Her teaching and research is focused on how architecture and agriculture intersect with a particular interest in rural communities. She has experience working with communities to develop ideas and projects that reconnect them to their food sources including food hubs, community gardens, urban farms, and digital mapping media. She herself is a farmer, operating at 300 acre farm in Cowpens, South Carolina. In addition, she has a depth of experience in design pedagogy, which will be important to engaging our high school students in design activities. **Gretchen Lambert AIA**, Vice President, Studio 2LR, a local design firm specializing in architecture and interior design. For over 11 years, the partners and staff have worked with numerous public and private clients on a wide variety of award-winning projects. The firm provides a unique approach to each design opportunity, taking the time to learn about the users and their specific needs before crafting a customized response. Studio 2LR will work with students to support the PBL concept and ensure that the anticipated unique building designs and program concepts are rooted in real-world requirements.

This strong collaboration is championed by Richland School District One's Superintendent, Dr. Craig Witherspoon (see attached supporting document #3), and Richland Library's Executive Director, Melanie Huggins. To ensure successful outcomes, our project leads include, Richland Library's Planning and Projects Director, Roberta Phillips, and LRHS's STEM Coordinator, Constantina Green. Ms. Green and her team of qualified teachers will serve as experts in the development of the curriculum, direct instruction, evaluation and support of the students. Mrs. Phillips will have direct oversight of the project and coordinate the work of the consultants and key library staff members including Phillip Higgins, Director of Marketing & Digital Strategy; Jennifer Naimzadeh, Teen Services Manager; Caroliegh Frentzel, Data Analyst; and the Project Coordinator, yet to be hired (job description attached). Both project leads will conduct monthly team meetings; provide ongoing progress

monitoring and reporting; gather and analyze data, provide advice on course corrections; communicate with colleagues, stakeholders and community members and help the Project Coordinator to engage the community.

Our project’s bold outcomes and design are not without some risks. *Fresh Food, Fresh Thinking* assumes that two community problems—food scarcity and a desire for accessible library services—can be successfully solved through development of a joint-use/hybrid model and sustained by a partnership between the school and the library. This is the hypothesis that the students will help us test and further develop.

One risk of this project is that the community may not accept an unconventional model of library services because it is unfamiliar to them. Early and authentic engagement of the community and elected officials will help to mitigate this risk. The partners are committed and professional, yet there is always the risk—especially within the school district— that staff transitions could occur during our project and delay our progress. Strong project leadership from Constantina Greene and Roberta Phillips will help to overcome such transitions.

However, if *Fresh Food, Fresh Thinking* is successful, the students will deliver a plan to solve two community problems—food scarcity and desire for accessible library resources and services—with a solution that is innovative, sustainable and has community support. Community input on the concepts developed by the students and key stakeholder feedback will be key to determining how and if this project can move to the implementation phase.

Communicating results, discoveries and lessons learned: The purpose of our Communication Plan is to build community awareness of the project, and to share progress and lessons learned with the broader library and educational communities. Our intent is to share the progress of *Fresh Food, Fresh Thinking* utilizing multimedia efforts that include, but are not limited to:

- The project will have its own social media presence updated regularly throughout the course of the project.
- Project Leads will host webinars to highlight the different unique aspects of the project, student learning, unconventional partners and key stakeholders.
- We will create a *Fresh Food, Fresh Thinking* page on our current [Building Your Library](#) website that will track the progress of the project with content and photographs generated by students and other team members.
- LRHS Film students will work with project consultants and Richland Library’s multimedia designer to create short videos on the project’s progress.
- Richland Library’s Access Magazine will feature a story about the students and the project, and *#FreshFoodFreshThinking* will be promoted on Twitter throughout the project.
- Team leaders will submit articles about the project broadly (to include the Public Library Association, Clemson Publications and the Urban Libraries Council).

- Presentations for annual conferences of the American Library Association, Urban Libraries Council and Public Library Association and others will be created, submitted and presented by project team leaders.

3. Impact

We believe the Farmers Market/Public Library hybrid concept has the potential to be a national model designed to assist rural communities struggling with poverty, food insecurity, unemployment and lack of transportation by creating a local vibrant place of learning, access to fresh food, and a strong community asset. Whether or not we are able to fund and build the project the students design, we fully anticipate that the library and LRHS partnership will be strengthened—leading to more partnerships—and that we will be better prepared to be a stronger partner with other high schools in our service area. LRHS will have the opportunity to test an innovative addition to its STEM and PBL offerings, applying what works to future curriculum development and application. And most importantly to informing our work going forward, the library expects to learn directly from the students, what their aspirations are for themselves and their community, and how we can support them to make their dreams a reality.

We believe public libraries can be a catalyst to enhance life in communities with innovative, cost-effective partnerships throughout rural America. This approach—to have students thoroughly engaged and leading the design of a desired service and facility to meet a community need—is a new level of community engagement for our library, and we believe it will be novel to many public libraries across the country.

With the documentation and broad sharing of the results of *Fresh Food, Fresh Thinking* our intent is to inspire public libraries to think holistically about the way their buildings act as community anchors—especially in rural communities—and to deepen their partnership with youth, seeing them not only as recipients of services but as also designers of services. We’d love to apply this approach—of working with students to solve community problems—to other issues and with other high schools in our community. With this first experience, we’ll be better prepared to be a critical and embedded partner in the development of PBL curriculum.

The momentum and acknowledgement that the students will generate for their efforts will provide a catalyst for earnest conversations with key funders and elected officials for the need for library services and access to fresh food in rural communities. *Fresh Food, Fresh Thinking* will provide an innovative model of community partnership and Project-Based Learning that schools and libraries around the country will be interested in learning more about.

RICHLAND LIBRARY: FRESH FOOD, FRESH THINKING

Schedule of Completion

June 1, 2017 – May 31, 2018

First Quarter: June-August 2017	Second Quarter: September-November 2017	Third Quarter: December 2017-February 2018	Fourth Quarter: March-May2018
<p><u>Activities:</u> Hire Project Coordinator</p> <p>Develop Curriculum</p> <p>Team Meetings (library staff, partners, consultants)</p> <p>Engage advisors</p> <p>Design surveys</p> <p>Create evaluation matrix</p> <p>Communicate outcomes</p> <p>Communication Plan implementation</p> <p>Develop progress monitoring and assessment strategies</p>	<p><u>Activities:</u> Facilitate Community Conversations</p> <p>Consultants instruct and mentor students</p> <p>Host webinar to share project’s interim milestones</p> <p>Student Workshop - Intensive Design Thinking Approach to Problem Solving</p> <p>Team Meetings (library staff, partners, consultants)</p> <p>Documentation of progress/process through Communication Plan</p> <p>Review student coursework evaluations; data collection analysis to inform project deliverables and course corrections as necessary</p>	<p><u>Activities:</u> Application of Design Thinking Across Curriculum</p> <p>Entrepreneurship Training (certified library staff and YEScarolina)</p> <p>Consultants instruct and mentor students</p> <p>Team Meetings (library staff, partners, consultants) and engage advisors</p> <p>Documentation of progress/process through Communication Plan</p> <p>Host webinar on topic relating to project development and content</p> <p>Project monitoring assessment, review student coursework evaluations and celebrate student milestones</p>	<p><u>Activities:</u> Application of Design Thinking Across Curriculum</p> <p>Consultants instruct and mentor students</p> <p>Team Meetings (library staff, partners, consultants)</p> <p>Documentation of progress/process through Communication Plan</p> <p>Host webinar on project accomplishments and lessons learned</p> <p>Student presentations of models and plans to community and key stakeholders for feedback</p> <p>Data analysis and feedback, preparation for final report, compose journal submissions and professional presentations</p>

DIGITAL PRODUCT FORM

Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (i.e., digital content, resources, assets, software, and datasets). The products you create with IMLS funding require careful stewardship to protect and enhance their value, and they should be freely and readily available for use and re-use by libraries, archives, museums, and the public. However, applying these principles to the development and management of digital products can be challenging. 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

You must provide answers to the questions in Part I. In addition, you must also complete at least one of the subsequent sections. If you intend to create or collect digital content, resources, or assets, complete Part II. If you intend to develop software, complete Part III. If you intend to create a dataset, complete Part IV.

PART I: Intellectual Property Rights and Permissions

A.1 What will be the intellectual property status of the digital products (content, resources, assets, software, or datasets) you intend to create? Who will hold the copyright(s)? How will you explain property rights and permissions to potential users (for example, by assigning a non-restrictive license such as BSD, GNU, MIT, or Creative Commons to the product)? Explain and justify your licensing selections.

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.

Part II: Projects Creating or Collecting Digital Content, Resources, or Assets

A. Creating or Collecting New 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 format you will use.

A.2 List the equipment, software, and supplies that you will use to create the 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) you plan to use, along with the relevant information about the appropriate quality standards (e.g., resolution, sampling rate, or pixel dimensions).

B. Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan (i.e., how you will monitor and evaluate your workflow and products).

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period of performance. Your plan may 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).

C. Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata. Specify which standards you will use for the metadata structure (e.g., MARC, 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).

D. 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).

D.2 Provide the name(s) and URL(s) (Uniform Resource Locator) for any examples of previous digital content, resources, or assets your organization has created.

Part III. Projects Developing Software

A. 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 functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

B. Technical Information

B.1 List the programming languages, platforms, 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) and URL(s) for examples of any previous software your organization has created.

C. Access and Use

C.1 We expect applicants seeking federal funds for software to develop and release these products under open-source licenses to maximize access and promote reuse. What ownership rights will your organization assert over the software you intend to create, and what conditions will you impose on its access and use? Identify and explain the license under which you will release source code for the software you develop (e.g., BSD, GNU, or MIT software licenses). 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.

C.2 Describe how you will make the software and source code available to the public and/or its intended users.

C.3 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

URL:

Part IV: Projects Creating Datasets

A.1 Identify the type of data you plan to collect or generate, and the purpose or intended use to which you expect it to be put. Describe the method(s) you will use and the approximate dates or intervals at which you will collect or generate it.

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 personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information? If so, detail the specific steps you will take to protect such information while you prepare the data files for public release (e.g., data anonymization, data suppression PII, or synthetic data).

A.4 If you will collect additional documentation, such as consent agreements, along with the data, describe plans for preserving the documentation and ensuring that its relationship to the collected data is maintained.

A.5 What methods will you use to collect or generate the data? Provide details about any technical requirements or dependencies that would be necessary for understanding, retrieving, displaying, or processing the dataset(s).

A.6 What documentation (e.g., data documentation, codebooks) will you capture or create along with the dataset(s)? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the dataset(s) it describes?

A.7 What is your plan for archiving, managing, and disseminating data after the completion of the award-funded project?

A.8 Identify where you will deposit the dataset(s):

Name of repository:

URL:

A.9 When and how frequently will you review this data management plan? How will the implementation be monitored?