NATIONAL LEADERSHIP GRANTS FOR LIBRARIES

Sample Application LG-260261-OLS-26
Project Category: Community-Centered Implementation

Universidad De Puerto Rico en Cayey

Amount awarded by IMLS:	$99,992
Amount of cost share:	$0

The University of Puerto Rico at Cayey will implement a project designed to develop a model for sustainable, community-engaged, digital collections management for use at institutions with limited financial resources, digital infrastructure, and technical support. This project will build on scholarship on minimal computing to preserve and build access to a collection of born-digital materials on hurricane María and other recent emergencies in Puerto Rico. This project, based at the Institute of Interdisciplinary Research at the University of Puerto Rico at Cayey, will partner with the Víctor Pons Gil library at the University of Puerto Rico at Cayey, library and digital humanities consultants, and the Digital Library of the Caribbean. The project outputs will include the preservation of and access to copies of the collection; a free online access platform; replicable process documentation including guides and workflows; and a public presentation showcasing the project to scholarly, professional, and community audiences.

Attached are the following components excerpted from the original application.

- Narrative
- Schedule of completion

When preparing an application for the next deadline, be sure to follow the instructions in the most recent Notice of Funding Opportunity for the grant program to which you are applying.

Narrative

Introduction

The University of Puerto Rico at Cayey (UPR Cayey) requests $79,502 from the IMLS National Leadership Grants for Libraries Program to develop a model for sustainable, community-engaged, digital collections management for use at institutions with limited financial resources, digital infrastructure, and technical support. This proposed Community-Centered Implementation project will build on scholarship on minimal computing to preserve and build access to a collection of born-digital materials on hurricane María and other recent emergencies in Puerto Rico. This project, based at the Institute of Interdisciplinary Research at the UPR Cayey, will partner with the Víctor Pons Gil library at the UPR Cayey, library and digital humanities consultants, and the Digital Library of the Caribbean.

Project outputs include preservation and access copies of the collection, a free online access platform, replicable process documentation including guides and workflows, and a public presentation showcasing the project to scholarly, professional, and community audiences. These activities will inform a sustainable, cost-effective, and adaptable model for building local capacity, infrastructure, and community engagement that will benefit librarians, archivists, researchers, educators, and students at the UPR Cayey and other small institutions with resource constraints, as well as the communities they serve.

Project Justification

This project addresses scholarly and community needs that were identified over the course of conducting research for the project *Collective Care: Community Responses to Disasters in Puerto Rico* (CCPR). CCPR is a research and education project that mobilizes public history to support culturally-informed dialogues about emergency preparedness. The project, led by Dr. Rosa Ficek at the Institute of Interdisciplinary Research at the UPR Cayey, began recording oral histories in the aftermath of hurricane María using participatory and community-engaged research methods. The project expanded in 2020 to document the earthquakes of that same year as well as the pandemic. Today, the project has recorded over 150 oral histories and collected over 600 photographs and graphic images highlighting the strategies that communities develop to respond to emergencies. These materials have been created and collected with the collaboration and input of over ten communities and their organizations across Puerto Rico.

Through these activities, two kinds of needs emerged: 1) the need to preserve these materials because of the insights they offer into local history, and 2) the need to share these materials with the communities that participate in the project and broader publics. As CCPR shifted from its research to storytelling phase, the need for an access platform became more evident. The project is developing educational resources in the form of an exhibition, workshops, and teaching guides based on the collection; with an online access platform, these educational resources could enable new audiences to explore the collection by linking directly to primary materials. However, the limited financial resources, technical knowledge, and infrastructure at the UPR Cayey prevent CCPR – and other digital projects at the institution – from exploring its full potential.

This project builds on insights from scholarship on minimal computing to address this problem. Minimal computing offers a way to approach digital humanities in constrained environments (GO:DH Minimal Computing Group). It reduces barriers to entry and access by diminishing the use of unnecessary technology (Sayers 2016), shifting the focus away from any particular hardware or software to emphasize the importance of process – how the decisions made in a project are embedded in the specific contexts in which the scholarly work is done (Risam and Gil 2022).

The four questions that define the minimal computing approach offer a way to design access to the CCPR project materials within its specific environmental constraints:

1) What do we need?

Like many small institutions, the UPR Cayey lacks the digital infrastructure and technical knowledge necessary to support digital collections and digital humanities projects. Puerto Rico's debt crisis has shaped local digital scholarship through cuts to the University of Puerto Rico's budget and increased tuition costs. These changes, together with emigration out of Puerto Rico due to the economic crisis, have reduced student enrollment and led to the consolidation of academic programs. In this context, sustainability is difficult to achieve.

Our Office of Information Technology offers some support for building websites on Google Sites using institutional accounts. The library does not have access to server space and cannot support faculty projects that need web hosting. The library began to digitize collections and make them available through an account at the Internet Archive; however, due to changes in library staff these digitization and access efforts have paused in the absence of personnel with digital collections management training. The library, moreover, has conducted a needs assessment that documents the need for an archivist but there are no plans to bring on new staff currently.

As a result, CCPR initially built an Omeka site to share project materials using the paid hosting option, omeka.net. While Omeka allows the Project Director and students to build a site without technical knowledge, the cost of web hosting poses a significant limitation. The CCPR project relies entirely on external funds to operate and paying for a hosting service in the long-term is not viable. Moreover, without technical expertise on campus, customizing the Omeka site is not possible.

The communities who contribute oral histories and materials to the CCPR project need access to the collection. In these communities, access is shaped by low bandwidth, frequent power outages, and reliance on mobile devices. Dialogues with community collaborators reveal interest in accessing the collection because of its potential to provide information on local history and emergency preparedness based on lived community experiences. However, many community members who participate in the project have little or no experience using digital libraries or archives, highlighting the need to design an access platform with these particular users in mind. Community collaborators also need avenues for providing input on the management of the collection. The collaborative and participatory nature of the project calls for ethical stewardship practices that continue to nurture relationships between communities and the university in this new phase of the project.

2) What do we have?

CCPR has established community relationships. Community collaborators are more than informants or research participants. Communities and their organizations have taken active roles in decision making processes across the project's different phases by, for example, designing research methodologies, conducting interviews, and co-creating educational resources. In this new phase, community collaborators can offer important insights that can enhance the digital collection's discoverability and access.

CCPR can also count on a community of library, archive, and digital humanities experts dedicated to sustaining and building local capacity as a means to sustain and strengthen institutions that are at risk due to Puerto Rico's financial situation. Our two project consultants, an archivist and a digital humanities technology expert, are eager to help build local capacity and infrastructure and their commitment, as well as the broader network of professionals in Puerto Rico, are an important resource for current and future initiatives.

The University of Puerto Rico's partnership with the Digital Library of the Caribbean (dLOC) allows us to expand access to the collection. Through this partnership, the CCPR project may house a copy of the materials with the dLOC and make these materials available through the dLOC's website.

3) What should we prioritize?

To ensure sustainability we need to prioritize local control over resources and technology, over the ease of use associated with off-the-shelf content platforms and those managed by other institutions. While the dLOC's platform is a good way to achieve our access goals, relying solely on this option would evade the problem of local capacity. Instead, we choose to build our own access platform, aligned with minimal computing principles, and also house duplicates of the materials at the dLOC. This will support our preservation goals while also creating the opportunity to strengthen digital scholarship at our home institution in ways that prioritize local control, security, and flexibility. The capacity-building activities we have planned, moreover, are a means to continue to build community and relationships with stakeholders through training activities folded into the process of describing, preserving, and making the materials accessible.

4) What are we willing to give up?

The most sustainable and cost-effective approach to building our own access platform involves self-hosting. However, within the time frame of the grant period it is more practical to use cloud hosting for the website, leaving open the possibility of hosting locally at the University of Puerto Rico in the future. The proposed project would help lay the foundation for this possibility.

In sum, the project will benefit both scholarly community audiences. Through the proposed activities, the CCPR project will explore how a minimal computing approach can enable engagement with the project materials within and beyond the university users. To this end, the project also brings insights from community archives that can offer the UPR Cayey library, and similar institutions, avenues for strengthening the relationships between the communities represented in archival collections and the institutions that house the collections.

The model that this project aims to develop contributes to minimal computing a focus on community-engagement that can potentially help other institutions bridge the access gap between their collections and the communities they serve and critically assess the role of technology in these processes.

Project Work Plan

Project Team

Dr. Rosa Ficek, the project director, will coordinate the project's day-to-day activities, track progress, and evaluate outcomes. She will also lead efforts to integrate community input into the project and document these processes. Dr. Ficek is a cultural anthropologist whose research focuses on the relationships between technology, infrastructure and society; participatory research methods; and disaster studies. She has 20 years of experience with ethnographic research and a successful record of project completion with grant funds from the National Endowment for the Humanities, the Mellon Foundation, and other organizations. She holds a Ph.D. in anthropology from the University of California-Santa Cruz.

Ana Rivera, is the librarian at the UPR Cayey's Victor M. Pons Gil library responsible for the Hector Campos Parsi Collection on Images, Sound, and Movement. She has over 20 years of experience with cataloguing historical, audiovisual, and sound resources, research and documentation, and collections development. Ana will actively participate in project activities in all phases including planning, description, preservation, access, and evaluation. Her contributions will include assisting training sessions, supporting metadata development, participating in workflow implementation, and collaborating on the creation and testing of the access platform and documentation. She will also supervise the student assistant we will hire to support the project.

Archivist and librarian Hilda Teresa Ayala will join the project as an external consultant. She holds a Master's in Library and Information Sciences from the University of Puerto Rico, a Master's in Archival Studies from the University of British Columbia, and a BA in Hispanic Studies from the University of Puerto Rico at Cayey. Previously serving as the Director of Puerto Rico's General Archive, she has led initiatives to digitize archival materials, improve environmental conditions for collections, and develop strategies for prevention, preservation and emergency response. Hilda will serve as mentor and consultant for the project, supporting library staff through training in digital preservation strategies for managing the materials across their full lifecycle, as well as assisting in the development of manuals, guidelines, and workflows.

Jose Hernandez, Digital Humanities Technologies Specialist at Florida State University, will join the project as a consultant. He will provide support in the development of training workshops focused on the use of open source tools for the creation of digital archives and static websites. In addition, he will offer technical assistance in the development and implementation of these tools for UPR Cayey staff, faculty and students. Jose will draw on his experience as co-founder of the Interdisciplinary Data Humanities Initiative at Florida State University, which is the first initiative in the United States dedicated to training humanities, social sciences, and art scholars in the use of high-performance computing and large-scale data hosting for research. He will also draw on his experience as an Instructional Designer at the University of Puerto Rico-Rio Piedras campus, where he taught courses on

the creation of static webs pages and the use of local digital infrastructure for sustainable digital projects, particularly in energy-unstable environments such as Puerto Rico.

An undergraduate student assistant, selected through the Victor Pons Gil Library's work-study program, will provide support with tasks related to the description and preservation of the digital collection, and the development and testing of the access platform. She will work under the supervision of librarian Ana Rivera.

Preservation and access activities will take place in parallel and within different timeframess:

Phase 1A: Planning for Preservation (Sept-Dec 2026)

Hilda Teresa will work with Ana and the student assistant to assess the collection and develop a preservation strategy. They will have weekly training sessions. During this period Rosa will develop a workshop with community collaborators designed to produce community-generated metadata and a use and access statement based on community needs and priorities.

Phase 1B: Planning for Access (Sept 2026-May 2027)

The planning period for building the access platform is twice as long as the planning period for preservation and follows a different pace. During the first four months of this phase, Jose will meet monthly with the entire project team to develop the website's design. During the remaining five months of the planning phase, Jose will have monthly training sessions with Ana and the student assistant to develop the website's workflow.

Phase 2A: Implementation of Preservation Strategy (Jan-July 2027)

Hilda Teresa will hold monthly training sessions with Ana and the student assistant to describe the collection contents and carry out preservation activities. Previous grant funding supported the creation of Dublin Core metadata for 90% of the collection and the transcription of the oral histories. During this phase, the project team will review and revise metadata and transcriptions as needed. They will also generate technical and administrative metadata, and create a finding aid. The project has a dedicated computer for digital preservation activities; this workstation will allow Ana and the student assistant to prepare preservation and access copies of the collection, embed metadata and align the materials with accessibility standards, generate checksums, and carry out other preservation activities. The final month of this period will set aside time for a formative evaluation and revisions to the workflow if necessary.

Rosa will facilitate the workshop with community collaborators, with the assistance and participation of the rest of the project team. Rosa will extend targeted invitations to ten people who have contributed oral histories and other materials to the project's digital collection. During the two-hour workshop, we will explore how participants might use the access platform and search for materials. By the end of the workshop, we will have a list of metadata generated by community members to describe their own materials. We will also facilitate a discussion and interactive activities exploring how collaborators expect people to use the materials. With these insights, the project team will create a use and access statement that communicates community desires. This statement will be included in the finding aid and published on the project website.

During this phase Hilda Teresa will facilitate two workshops on digital collections management: one for the UPR Cayey library staff and faculty, and the other for community members and their organizations. These workshops will expand the project's impact beyond the immediate project team by creating an opportunity for others to learn these skills and strategies.

Phase 2B: Implementation of Access Strategy (Jun-Dec 2027)

Jose will work with Ana through biweekly sessions providing targeted training on the use of Wax, a minimal computing framework for publishing digital collections, static-site workflows for publishing digital archives, and metadata integration and digital collection presentation.

In addition training the CCPR project staff, Jose will contribute to public training and capacity building through a three-day summer training program for librarians, faculty members, students, and community partners interested in developing digital collections with limited resources. The training program will introduce participants to the technical and conceptual foundations of sustainable digital collections. Topics will include: 1) Minimal computing principles for digital humanities projects, 2) Introduction to Wax and GitHub Pages, 3) Basic database structures for digital collections, 4) Sustainable data storage strategies, and 5) Introduction to advanced data systems and SQL principles.

Participants will be encouraged to begin developing their own small-scale Wax collections during the training. The goal is not only to help participants build lightweight digital archives but also to position these projects as a foundation for more complex database-driven systems in the future.

While the final session will introduce participants to more advanced database concepts, the primary emphasis of the training will remain on low-cost, low-infrastructure solutions, particularly the use of Wax and static-site publishing methods. This approach reflects the broader goal of the project: creating sustainable, community-engaged digital preservation practices that can be realistically adopted by small institutions throughout Puerto Rico.

We plan to launch the project website in September 2027 to commemorate the 10-year anniversary of hurricane María. To present the project, the team will give a public talk at the UPR Cayey. During the final two months of the implementation phase, Jose and Ana will revise the static site workflow and prepare a guide to building Wax sites that would allow other institutions to replicate and adapt the process. Duplicate copies of the collection will be sent to the dLOC at this time.

Phase 3: Evaluation (Jan-Feb 2028)

During the final two months of the project Rosa will conduct a summative evaluation in dialogue with the project team and community collaborators. These findings, as well as other project documentation, will be compiled in a final project report. Project impact will be documented throughout the grant period through questionnaires administered to workshop participants, and periodic dialogues between the Project Director and the project team.

Stakeholder involvement

Community collaborators will be involved in planning of the project through the metadata, use, and access workshop held near the beginning of the project. The design of the workshop will build on insights emerging from the Project Director's sustained engagement with community collaborators. Their input will directly shape how the materials are discovered, and how people will use the materials. The Project Director will dialogue with community collaborators again at the end of the grant period to assess the impact of the workshop on the project.

Project Results

The following table summarizes the relationship between project needs, activities, deliverables, and results:

Needs	Activities	Deliverables	Results
local technical knowledge	collection description, preservation and access; trainings and workshops	digital collection, finding aid and metadata; guides, workflows and instructional materials	increased capacity for managing digital collections at the UPR Cayey, in the broader scholarly community, and in community organizations
cost-effective, low-bandwidth infrastructure	static site construction	static website and documentation	stronger digital infrastructure at the UPR Cayey
access platform that responds to community information needs	metadata, use and access workshop	community-generated metadata, use and access policy, and workshop report	stronger relationship between communities and the UPR Cayey
ethical stewardship			

Digital collection and website

Deliverables related to the digital collection include preservation and access copies, oral history transcriptions, a finding aid, a use and access statement developed with community input, and the project website.

Given the nature of the archive which will include oral histories, video interviews,

and textual materials, and the project's goal of developing a sustainable and replicable model for small archives, the project will prioritize low-cost, accessible tools. These tools are intentionally selected so that researchers, librarians, and community partners who participate in the program's training can reuse them in their own projects. The technical stack is therefore designed around minimal-computing principles and widely available infrastructure divided here into a frontend and a data storage architecture model.

Frontend:

The archive will be accessible through a Wax site, a lightweight static-site framework designed for digital collections and built on minimal computing principles. Wax allows the project team to create a structured collection of items with associated metadata, descriptions, and links to external media files.

The website will be deployed and maintained using GitHub Pages, which provides free hosting for static websites and allows the project team to maintain version control and long-term sustainability. All audiovisual files will be linked from the site but stored in external platforms as described below.

The primary direct cost associated with this component will be the purchase and maintenance of the project's web domain, which will be connected to the GitHub Pages deployment.

Data Storage:

All metadata and textual materials will be stored in a project-managed Google Drive workspace. The initial storage capacity will be 15 GB, with the option to expand to up to 2 TB if additional space is required for audiovisual materials.

To ensure accessible streaming while minimizing infrastructure costs:

- Video interviews will be hosted on YouTube (unlisted) or a comparable platform. This configuration ensures that the videos remain accessible through embedded links on the archive site but are not publicly searchable outside the collection interface.
- Audio recordings will be hosted through Spotify or a comparable audio-hosting platform, again accessed through links embedded in the archive.

In addition to cloud storage, the project will maintain offline preservation copies of all audiovisual and textual materials on a solid-state drive (SSD). This physical storage device will be replaced every 5–7 years to ensure long-term data integrity and redundancy.

If available, this decentralized storage strategy may later be complemented or replaced by institutional infrastructure provided by the University of Puerto Rico–Cayey Campus Information Technology Services, should sufficient storage capacity and long-term support be available. This hybrid approach, combining cloud hosting, minimal computing infrastructure, and physical backups, ensures both sustainability and replicability for institutions with limited technical resources.

Capacity-building materials

Deliverables related to description and preservation include: a guide for managing born-digital collections, a digital preservation strategy workflow, a metadata guide, a description guide, and a recording of the workshop offered by Hilda Teresa on digital collections management that will be made available on the project website. A report on the community access workshop will include the list of metadata generated with community collaborators.

Deliverables related to digital access include: a PowerPoint and handouts from the 3-day training program, a guide to building a Wax site, a metadata template for the project's site, and documentation for the project site.

Project dissemination

The project will be disseminated through a public presentation. To publicize the presentation and project we will circulate an announcement through university and professional networks. We will also do targeted outreach to community partners to invite them to the event. Because the website launch and presentation will coincide with the 10-year anniversary of hurricane María, we expect the project to appeal to broader audiences interested in emergency preparation and community history; we will reach out to them through social media and a press release. Deliverables include a recording of the presentation, a press release, and promotional materials.

Adaptability to other contexts

The project will ensure that results are adaptable, generalizable, and useable by other institutions and communities through the design of the project, which integrates capacity-building into all aspects of the project, and the choice of technologies. These activities will generate documentation in the form of reports, guides, workflows, and recordings made available on the project website for use by other small archives.

Sustainability

The project's active creation phase will continue for three more years. During this time, we expect to add approximately 20 oral histories to the collection Training library staff and integrating the digital collection into the library's workflow will ensure the integration of these new materials and the maintenance of all digital files and the website. The project will enter its ongoing maintenance phase in January 2030 and end in 2037. During this time the archive will be freely available to support public programming, research and teaching based on the collection's materials. The minimal computing approach to the project, with its low-cost emphasis, learning curve, and adaptable framework, supports sustainability through technology and infrastructure decisions. The community-engaged approach also supports sustainability by ensuring ongoing community engagement with the materials.

The retirement phase of the project contemplates maintaining the digital collection at the UPR Cayey library–on SSD drives— and the dLOC for as long as possible. The project website, on the other hand, will be sunset through the concept of "graceful degradation" (Nowviskie and Porter 2010) so that its basic functions will continue, while at the same time its components will be allowed to break and become obsolete.

Schedule of Completion

Year 1	**Month**											
Activities	1	2	3	4	5	6	7	8	9	10	11	12
Phase 1A: Planning for Preservation (Sept - Dec 2026)												
weekly training sessions	X	X	X	X								
contract project staff	X											
purchase materials	X											
assess collection	X											
develop preservation strategy		X	X	X								
develop metadata workshop			X	X								
Phase 1B: Planning for Access (Sept 2026 - May 2027)												
monthly training sessions	X	X	X	X	X	X	X	X	X			
develop static-site design	X	X	X	X								
develop static-site workflow					X	X	X	X	X			
Phase 2A: Implementation of Preservation Strategy (Jan - July 2027)												
monthly training sessions					X	X	X	X	X	X	X	
describe collection contents					X	X	X	X				
community access workshop						X						
workshop for library staff: digital collections management							X					
workshop for community: digital collections management								X				
digital preservation									X	X		
revise workflows											X	
Phase 2B: Implementation of Access Strategy (June - Aug 2027)												
biweekly training sessions										X	X	X
build and test access platform										X	X	X
workshop: digital access										X		

Year 2	**Month**											
Activities	1	2	3	4	5	6						
Phase 2B: Implementation of Access Strategy, cont. (Sept - Dec 2027)												
biweekly training sessions	X	X	X	X								
launch website	X											
present project to public	X											
revise workflow		X										
prepare guide to building a Wax site			X	X								
Phase 3: Evaluation (Jan - Feb 2028)												
evaluate project					X							
prepare final report						X						