Hyku for Consortia: Removing Barriers to Adoption, the Private Academic Library Network of Indiana

Hyku for Consortia: Removing Barriers to Adoption

The Private Academic Library Network of Indiana (PALNI) as lead applicant, in partnership with the Pennsylvania Academic Library Consortium, Inc. (PALCI), requests an IMLS National Leadership Grant for Libraries for $248,050 to fund a 24-month project to increase the flexibility, accessibility, and usability of the multi-tenant repository platform system, Hyku. This project will extend our previous work and improve the national digital repository infrastructure by enhancing an open-source platform suitable for access to diverse types of materials, addressing needs articulated by stakeholders and consortia and reducing barriers to adoption.

Statement of National Need - Consortia are actively seeking repository solutions that scale to support the needs of groups of libraries in an affordable and flexible way. Hyku has proven itself to be a viable and user-friendly open source tool for multi-tenant repository management in its ability to create repositories and manage users across groups, as demonstrated through our previous IMLS-funded project (LG-36-19-0108-19, https://www.hykuforconsortia.org). And while Hyku meets many requirements and offers great potential for scaling repository infrastructure, barriers to adoption remain for consortial member libraries that diminish the scalability and adoptability of the Hyku service, namely the lack of 1) limited customization for metadata flexibility and 2) administrative functionality. At present, individual Hyku repository tenants lack the flexibility to adequately address use cases for collections of diverse content types. Self-submission and simple Dublin Core metadata are available today, but custom code development is required each time adjustments are needed for complex or granular materials and metadata. Library users have also reported multiple inefficiencies in managing their repositories through the available administrative tools. This project aims to meet the needs of these use cases and remove real barriers to adoption identified through our user research. We will focus our efforts on a few key areas: metadata customization, repository management tools, and native support for more file types. This development will, in turn, make Hyku attractive to a diverse group of institutions, including our own member libraries, and the libraries of other types of consortia. This project is designed to increase adoptability, thereby solidifying Hyku as a sustainable, flexible, affordable, and overall viable choice for long-term repository management.

Project Design - The project will be undertaken in the following phases:

Phase 1: (August 1, 2021 - March 2022) Research and Planning
- The partners will undertake a series of usability tests, interviews, and focus groups with real and potential users of Hyku and competing repository platforms. Topics will focus on user needs, workflows, information structure, integration with other downstream services, and metadata sharing.
- Results of tests, interviews, and focus groups will be used to determine specific requirements for the next two phases.

Phase 2: (April 1, 2022 - October 31, 2022) Metadata Flexibility and Sharing
- Development will focus on Hyku's ability to flexibly support multiple metadata use cases, based on known gaps, as well as new details uncovered through the research phase.
  - Increased export and sharing functionality to support multiple downstream uses.
  - Customizing the "Allinson Flex" tool, developed for the related Hyrax platform, to enable metadata customization within multiple Hyku repositories.
  - Improving workflows for bulk metadata import without the need for development support.

Phase 3: (November 1, 2022 - May 2023) Repository Management Improvement & Embedded File Support

- Development will enhance repository management based on an accessibility study undertaken in the previous grant, as well as other known gaps and research uncovered in phase one. These developments will include, but are not limited to:
  - Improvements to the end-user interface to address accessibility concerns.
  - Improvements to the repository management tools to create more efficient and intuitive workflows.
  - Native support for more file types including embedded pdf viewing, a/v streaming, 3-d objects.

Project closeout will include deploying the new software to the PALNI and PALCI consortium members, sharing code broadly with the Hyku community, and promoting the project at appropriate conferences and other forums. Project governance will support communication with stakeholders throughout all three phases.

Diversity Plan - The Hyku for Consortia project will engage a broad range of stakeholders across multiple consortia and individual libraries of varying sizes and types in our research phase. The feedback we gather will enable the software to best serve diverse institutions within many types of communities. Building on an accessibility study of the platform done in 2020, this project will address an underserved population of users with accessibility needs. The valuable work proposed by this project to make it easier to both run and use Hyku will enable increased availability of open access scholarly content to a diverse audience of potential researchers.

National Impact - Working with Notch 8, a prominent leader of Hyku development in the Samvera community, our previous grant project has contributed to Hyku's growth as a flexible, user-friendly, affordable multi-tenant repository, adding a much needed alternative to the limited repository options libraries currently have. This project will continue this upward trend of building Hyku's appeal and broadening its potential community of users. A truly flexible, fully featured, open source repository platform is currently only available at a high price, or with a high-level of in-house support. Enhancing Hyku in the way we propose creates a third option for a flexible multi-use repository platform that is truly affordable. In addition, building the software together with Notch8 we demonstrate that a community of libraries and consortia can work together with open source developers to shape products to their needs.

By making Hyku a more attractive prospect for libraries, consortia, or other institutions to adopt, we are in turn helping to increase the national digital infrastructure. An affordable repository with this level of flexibility and usability is needed by many. Widespread adoption leads to a more sustainable environment and efficient access to diverse types of collections and materials. Project partners will continue to communicate Hyku as a solution to other consortia and expand partnership opportunities to co-host Hyku to further reduce costs and share expertise.

Budget Summary - The total budget requested is $248,050. We estimate: Total contract expenses for development, UX research support, and project management at $174,000; Hosting, data storage and maintenance at $24,000; Supplies and meeting expenses - $6,000; PALNI staff salary and benefits - $21,500; and indirect costs at 10% or $22,550. We anticipate staffing in-kind contributions of $18,720 along with other in-kind contributions.