Digital Public Library of America (DPLA)

Front End Design and Implementation

Request For Proposal

Summary

The Digital Public Library of America (DPLA) seeks a skilled interactive agency to design and develop a website to facilitate the creative discovery, sharing, and use of multimedia library materials among the general public. This prototype website will serve as a gesture toward the possibilities for a future, fully built out DPLA.

Introduction

About the DPLA

The Digital Public Library of America is an ambitious project intended to make the cultural and scientific heritage of humanity available, free of charge, to all.

Convened by the Berkman Center for Internet and Society at Harvard University, the DPLA planning initiative seeks to develop "an open, distributed network of comprehensive online resources that would draw on the nation's living heritage from libraries, universities, archives, and museums in order to educate, inform and empower everyone in the current and future generations."

In December 2010, the Berkman Center for Internet & Society brought together leading experts in libraries, technology, law, and education to begin work on the best approaches to building a national digital library. A two-year process of intense grassroots community organization, beginning in October 2011 and supported by the Alfred P. Sloan Foundation and the Arcadia Fund, will result in a realistic and detailed workplan for launching the DPLA, as well as the unveiling of a prototype of the system with specially digitized materials.

Technical development on the prototype began with the development of an initial open source metadata platform that gathers metadata about content and collections made accessible through the DPLA and enables developers to use this metadata both to build new applications and to integrate it into existing sites and services. Phase two of development involves integrating continued work on the back end platform, complete with open APIs, with new work on a prototype front end: an interactive website that will enable the creative discovery, sharing, and use of millions of aggregated multimedia library holdings.

About the Project

The DPLA front end website (hereafter: the DPLA website) will serve as a creative, interactive platform for the general public to discover, share, and use books, photographs, audio and video recordings, and cultural heritage objects online. The most important function is the display and consumption of digital library content and metadata.

Proposals should describe the process you would follow to define, design, and build a website that will delight users and gesture toward the possibilities of a highly interactive, fully built out national digital library. The website should build upon the back-end platform currently under development (see below).

Project Sponsors

The client team includes John Palfrey, Chair of the DPLA Steering Committee; Maura Marx, Director of the DPLA Secretariat and a DPLA Steering Committee member; Project Manager Rebekah Heacock (DPLA Secretariat), and Project Coordinator Kenny Whitebloom (DPLA Secretariat).

A technical project manager on the Harvard side (Jeffrey Licht, Pod Consulting) will function as the key point of contact to minimize communication overhead.

RFP Timeline

Proposals should be submitted electronically by 11:59 PM ET on Monday, August 20 to Rebekah Heacock (dpla@cyber.law.harvard.edu). Questions can be directed via email to Rebekah Heacock.

Follow-up conversations with prospective teams will take place from August 21-26; we plan to announce our decision on August 27 in order to begin work by September 4, 2012.

Project Description

Background

Since the DPLA planning initiative's launch in 2011, the project and the community supporting it have grown rapidly. In the first few months, the Berkman Center team established a Steering Committee to guide the project and held initial planning meetings for a "big tent" initiative to bring together the major public and private libraries, as well as partners in the museum and archives worlds. The Steering Committee has grown to 16 members, representing small and large libraries from across the country, as well as a diverse group of other leaders who are devoted to this cause.

After the first few months of planning, the Steering Committee launched a two-year design phase for the DPLA, in which the project finds itself today. This design phase is a broad-based, collaborative planning process that includes hundreds of volunteers who are helping to envision what a DPLA could be for our country. The Steering Committee coordinates the efforts of six substantial workstreams, which are taking up a series of core topics identified by the community as requiring special focus from the outset: audience and participation; business models; content and scope; governance; legal; and technological aspects. The work of these sub-communities is documented online at http://dp.la.

The project's accomplishments to date include the creation of a broad and deep community dedicated to building a national digital library. As part of this work, the project has produced 40 technological submissions through a Beta Sprint in 2011, through which people from around the world developed suggestions, many in code, for what the DPLA could be. An interim technology development team has built an initial version of a DPLA back-end for the processing of metadata. Work toward an initial version of the DPLA's technology—both as an open platform with open APIs and as a standalone system that individuals can use—is actively underway, with a goal of a demonstration system in place by the April 2013 official launch of the DPLA.

In the coming several months, leading up to the April 2013 official launch, the DPLA aims toward three large goals: development of content; establishment of a new organization with a chief executive; and completion of the initial technological system for beta release. The next stage in the DPLA's technical development involves integrating continued development of the back-end platform, complete with open APIs, with new work on a prototype front end. This front end will gesture toward the possibilities of a fully built-out DPLA, serving as but one interface for users to interact with the millions of records contained in the DPLA platform. Development of the back-end platform will continue in such a fashion as to enable the Beta Sprinters, and others who may come along, to develop additional user interfaces and means of using the data and metadata in the DPLA over time, which continues to be a key design principle for the project overall.

This next stage of technical development incorporates a network of developers, a front end design team, a system architecture consultant, a small group of library tech experts providing ongoing advice on the technical development plan, and a Harvard-based technical advisory board consisting of a project manager; staff members from the Harvard Library Innovation Lab, the Berkman Center for Internet & Society, and the Harvard Office for Scholarly Communication; the co-chairs of the DPLA Technical Aspects Workstream, and members of the DPLA Secretariat.

Project Vision
The DPLA effort is comprised of a number of interlocking projects. Of relevance to this RFP are three of these:
1. The creation of the DPLA platform, a technical infrastructure that will enable developers to build applications that use the metadata and content aggregated by the DPLA. With this platform, the DPLA will be able to build a useful home page for end users, an open community of developers will be able to create innovative applications, and the content and services of the DPLA will be integrated into existing sites.
2. A targeted digitization initiative consisting of two parts: first, planning the first transatlantic partner exhibition on the topic of immigration and emigration, the focus of our collaboration with Europeana; and second, the planning and initial implementation of mobile and regional digitization infrastructure and services via a network of service and content hubs.
3. The design and development of a front end website for end users that will both make available to the public a wide and deep range of online content of all sorts, from libraries, archives, museums, and collections around the world, and facilitate the creative discovery, sharing, and use of this content.

Our goal is not to build a centrally-funded monolith but rather to provide a vehicle for information professionals that will ultimately make vastly more information available to library patrons. The front-end website will not serve as the only method of accessing content and metadata aggregated by the DPLA; work is ongoing to build a broad, open community of developers—including those who participated in the 2011 Beta Sprint—who are building various applications on top of the DPLA platform. Rather, the website will serve as one way to engage the public in a set of broadly useful interactions with DPLA content and metadata, providing inspiration and opportunities for future innovative uses of DPLA materials.

To that end, we want the website to entice users ranging from casual readers to hobbyists to scholars of rare historical materials to children participating in summer reading programs to those who are merely curious browsers of all the DPLA has to offer. The website should present the DPLA's content and metadata in a clean, easy-to-use interface that both encourages the serendipitous discovery of DPLA materials and allows for the rapid, targeted search of content of different types (books, audio, video, photographs, etc.), on different topics, by different authors, etc.

The website should:
- Build upon the back end platform currently under development
- Delight users and gesture toward the possibilities of a highly interactive, fully built out national digital library
- Feature intuitive user experience design
- Make sensible use of latest web technology and tools

Project Scope
The DPLA website should include, at a minimum, the following functionality:

- Browse and search
  - Browse the DPLA by collection
  - Browse the DPLA by thematic area
  - Perform a faceted search of the DPLA
  - View details of an item within the DPLA
  - Facilitate discovery of related content throughout the DPLA, especially across collections
- Social
  - Create personalized collections that can be commented on and shared with others
  - Comment on, rate, tag, and share individual items and collections with others
  - "Follow" collections, items, creators, and users, receiving notifications when there are changes

In addition to these requirements, we welcome proposals for additional compelling features or visualizations based on the platform's metadata that could be integrated into the front end.

Things We Like
- Geo-location to deliver local content on homepage, tied with ranking algorithm

- User account that stores personal data that can influence localization
- Users can make curated collections for public access
- Widgets that can be implemented in other library websites
- Ability to customize front page (personal curation)—coloring, layout, font, sharing options, various modules/widgets
- Full text preview

DPLA Platform / Overall Architecture

The DPLA website will be built upon the latest version of the DPLA platform, currently under development. The high-level architecture of the DPLA platform is described in the Platform Overview document.

The DPLA platform will expose all data stored within the DPLA through a REST API, providing lookup and search functionality for items, collections, creators, and contributors. From a technology architecture perspective, the DPLA website will be one of many clients using the DPLA API. However, as the DPLA website will be the first major "client" of the DPLA platform, we expect that its needs will inform the API's design and development through an iterative process.

For the purposes of your proposal, you should assume that the DPLA platform exists, that the API will support the DPLA website's requirements with regards to access to data, and that the DPLA platform will contain metadata on a large number of cultural heritage collections aggregated from content and service hubs as described in the next section.

Content

Content within the platform will include aggregated metadata about library holdings, aggregated full content (books, photographs, audio and video recordings) shared by our partners, and full content and metadata digitized by related DPLA efforts.

Initial work on the DPLA platform has helped to prompt the open release of metadata from large institutions, such as Harvard University, which recently released 12 million records for free reuse, made available to the world through the initial DPLA system.

Work is currently underway to identify an initial set of large content repositories (content hubs) and state digital library projects (service hubs) from which the DPLA will harvest metadata and data, in effect creating a distributed content infrastructure out of these networked hubs. Service hubs aggregate metadata and data from local public and research libraries, museums, archives, historical societies, and other cultural organizations—photographs, audio and video recordings, genealogical records, etc. We have preliminarily identified Georgia, South Carolina, Kentucky, Minnesota, Massachusetts, Oregon, and the Greater Mountain West Digital Library as service hubs. Content hubs are existing large repositories such The Internet Archive, HathiTrust, the IMLS DCC, and the Biodiversity Heritage Library, which, depending on the repository, contain text (e.g., books, periodicals, genealogical materials, correspondence, etc.), images (e.g., photographs, posters, broadsides, prints, maps, illustrations, etc.), academic articles, and audio and video files.

Timeline

RFP response	August 20, 2012
Project kick-off	September 4, 2012
Integration and testing begins	February 4, 2013
Development complete; site ready for internal review	March 18, 2013
Soft launch	April 8, 2013
Site launch	April 18, 2013

Services and Deliverables

We envision the project will include the following phases, deliverables, and activities:

Definition and Scoping

- Review existing personas (http://dp.la/use-cases/)
- Define user and organizational goals and tasks
- Refine high-level scope

Design

- Sitemap
- Wireframes for all page types
- Process flows (as necessary)
- 2-3 possible design directions, with 1-2 rounds of client feedback and revision
- Visual design for all unique page types
- Usability testing for the selected design

Development

- Code and test the website as defined by the wireframes, process flows, and visual design
- Integrate and test the website with the DPLA platform API
- Deploy the site to a staging environment for review
- Make the code available for review, and incorporate feedback based on reviews
- All intellectual property shall be owned by the DPLA (initially by the Berkman Center for Internet & Society at Harvard University, and eventually by the new organization being formed to manage the DPLA project). The DPLA plans to release code to the public on an open source basis to the greatest extent possible.
- Conform with relevant web accessibility standards (e.g. WCAG)

Deployment

- Deploy and test the site on the DPLA production server
- Provide installation documentation and post-launch troubleshooting

Transition and Warranty

- For a period of 30 days post launch, provide a code guarantee, development support for post-launch bug fixes, and phone support
- Provide up to 16 hours of support for transitioning development and maintenance of the site to the DPLA technology team

Support

- If desired by the DPLA, provide ongoing technical support and enhancements for the DPLA website

Response

Please include the following in your response:

- Relevant samples of previous work, especially as it relates to data visualization and exploration
- Vision, objectives and reason for wanting this project
- Description of the process you would follow to define, design, and build the front end
- Proposed project plan
- Biographies of people who will be dedicated to the project
- Contact information for client references

Please also explain how your fees break out for the following segments of the project:

- Expected reimbursable expenses (please include an itemized list)
- Hourly rate for out-of-scope work
- Ongoing support post-launch

Process

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