The DPLA Audience & Participation workstream hosted its second workshop at the Enoch Pratt free Library in Baltimore on July 27, 2012. The goal for the workshop was to develop a list of activities and tasks, derived from a series of use cases developed by Mike Barker and Audience & Participation Workstream co-chair Nate Hill, to help guide the DPLA’s development beyond April 2013.

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Introduction

Audience & Participation Workstream co-chair Carla Hayden opened the day’s discussions by welcoming participants to the Enoch Pratt free Library. Maura Marx, Director of the DPLA Secretariat, provided an overview of recent project developments:

1. **Content**: The DPLA recently received a $1 million grant from the National Endowment for the Humanities to plan and institute a Digital Hubs Pilot Program, a project that will enable the DPLA to partner with 5-7 existing statewide digital library projects (service hubs) and 5-7 existing large content repositories (content hubs) to define, test, and implement pilot projects and data provider agreements, thereby establishing foundational sites in the DPLA’s content infrastructure.

2. **Governance**: Work to create a standalone 501(c)(3) nonprofit organization, including the assembly of a Board of Directors and the hiring of an Executive Director, is underway. A five-person nominating committee has been formed to propose a slate of candidates for the inaugural Board, and the Governance Workstream will convene a workshop at the end of August to clarify a charter and bylaws.

3. **Technical Development**: The Technical Aspects Workstream and the technical development team based at the Berkman Center for Internet & Society have released an RFP for the design and development of a front-end prototype. Work also continues on the back-end content and metadata platform.

Marx turned the floor over to Audience & Participation Workstream co-chair Nate Hill, noting the day’s workshop was important because it would ultimately inform the work of the Content & Scope and Technical Aspects workstreams. She urged participants to...
bear in mind the DPLA’s likely content infrastructure and the types of items that would be available by April 2013. One of the workshop’s goals, Marx said, was to settle on a number of functions and activities to be included in the first iteration of the DPLA front-end (to be launched in April 2013), while also identifying longer-term functions and activities to be developed and implemented after the DPLA’s launch.

**Use case review**

Hill kicked off the workshop’s activities by asking participants to explain which use cases resonated most deeply with them. Many participants found those use cases that brought new and non-traditional users into the library, whether virtually or physically, to be the most thought-provoking. The use cases devoted to the imagined Orion Velasquez, a 14 year old high school student with homework to finish; Carl Sanderson, a sociology undergraduate student interested in sharing data sets; and Darla Jefferson, a knowledgeable shipwright who taps into the DPLA’s network of archival collections, were all submitted as strong examples of specific audiences that the DPLA might serve in one form or another.

The use cases were posted on whiteboards around the room, and participants broke off into groups to discuss the major goals, themes, and key ideas evident in each use case. Some groups outlined points of connection between the various individuals described. Certain use cases were marked +1 (top priority) or +2 (secondary priority), signaling the level of urgency in terms of including the case’s described uses and activities in the DPLA platform. (Please see Appendix I for photographs of select whiteboards, along with their transcriptions). Participants then reconvened to discuss the commonalities between the use cases and the resulting possible front-end functions and application ideas.

Overall, participants found that the use cases fell broadly into two categories: research needs and creation needs. While these categories are fluid—participants discussed the idea of a “two way street,” encompassing the desire to both curate and create—participants felt that “creators,” generally speaking, tend to dip into the category of “researchers” more often than “researchers” tend to fall into the “creators” category. Both categories incorporate a base user need for discovery and participation.

*The use cases discussed in these notes are available at [http://dp.la/use-cases/](http://dp.la/use-cases/).*

**Orion Velasquez (+1)**

*Fourteen-year-old Orion in Geneva, New York, has a local history homework assignment that asks him to report on one of the five Iroquois Nations. Orion has his*
own laptop computer. Orion’s interested in having fun after school on Friday and getting his homework done so it won’t interfere with his plans.

Participants discussed the ways in which Orion might both learn about and access the DPLA. Since Orion does not interact with librarians all that often, he learns about the DPLA online and through his teacher. A shiny and easy-to-use user interface is important to Orion, and he has little patience for websites that do not deliver in this area. Participants noted that in Orion’s case, the desired functions resemble those of a Learning Management System (LMS), or a similar application that approximates the functionality of an LMS. Broadly speaking, an LMS is a “is a software application for the administration, documentation, tracking, reporting and delivery of online education courses or training programs.”

Braulio Estes (possible +1)
Braulio is a third-year student at the Conservatory of Music of Puerto Rico, studying Guitar Performance. As he prepares for his final performance in his fingerboard harmonics class, he is looking for live recordings of the late Barney Kessel. He has an iPhone and an iPad with travelling Wi-Fi access. Braulio is talented, and he wants to make his living playing the kind of music he loves.

Braulio’s need for streaming audio and sheet music presents significant access and policy issues, especially with regard to fair use. Participants agreed that access in this case would mean discovery and not necessarily full access to the material. Participants agreed that Braulio would need an application to combine these needs.

Althea Hubbard (+1)
Althea, age 34 and a mother of three, attends South Western Iowa Community College as a student in the distance-learning program. She is enrolled in the Cultural Anthropology course and is writing her first paper since high school on the processes of enculturation. She has a desktop computer that she shares with her kids. Althea is driven to be both a good mother and part of the workforce.

Participants pointed out that Althea is a good example of an information seeker who, despite having a topic and set of questions related to that topic, might not know where to begin in terms of search and discovery. The DPLA could provide a “hook” to connect users like Althea with a librarian who can assist with their topics of inquiry. Participants discussed the utility of having educational materials such as open courses and example papers as DPLA content.


DPLA front-end use cases: [http://dp.la/use-cases/](http://dp.la/use-cases/)
D. Wadsworth Cunningham (+1)

Professor D. Wadsworth Cunningham studies atomic clocks and quantum optics. In an moment of curiosity while cooking his dinner at home, he is compelled to find a recently published paper by a colleague on nano-scale imaging. He has an apartment in Cambridge with high-speed Internet access and a laptop. The professor wants to make a significant contribution to his field, and he’ll stop at (almost) nothing to do so.

Participants noted that in order to meet D. Wadsworth’s needs, the DPLA would need to provide full and open access to data sets and journal articles. Article analytics and other tools that highlight open access aspects were discussed. One participant pointed out that a DPLA focused on open access would, in a sense, “force the issue,” perhaps prompting more people and organizations to move in that direction.

Carl Sanderson (+1)

Carl, a sociology major at the University of Alaska, wants to share the data he gathered while surveying the television watching habits of Alaskans over the course of the changing seasons for his capstone seminar. He owns a cell phone and uses the computers in the library. Carl is a data geek; he is aware of the DPLA and the other data sets it makes available. He wants to cross reference his data with some other sets, and he wants other people to do the same thing.

Participants noted that Carl is highly unlikely to consult a librarian when faced with an information-seeking hiccup. While user interfaces are important to him, Carl is willing to navigate and capable of overcoming design and UX obstacles to get the information he needs (i.e., data sets). He is also very aware of the services he uses, and unlike other users who may use the DPLA and not realize they are doing so, Carl never loses track of the fact that he is interacting with the DPLA. For that reason, Carl was identified as having a potential advocacy role for the DPLA.

Participants pointed out that Carl is unique in that he both wants to create and share content (data sets) and to conduct research. Participants discussed the possibility of integrating self-published data sets with trusted, vetted content, noting that an algorithmic ranking system based on contributor trustworthiness, among other tools, would be essential in making such a feature valuable to both users and stakeholders. One participant suggested a “data matchmaking app” that would connect Carl to the dataset or data provider that most meets his needs. Participants raised the idea of having the DPLA serve as a standards-setting organization for the sharing of datasets.

Becky Nielson (+1)

Becky lives in Lockhart, Texas, and she wants to get a job at the local grocery store chain, but she has no resume. Becky has no computer, and she doesn’t know how to use

DPLA front-end use cases: http://dp.la/use-cases/
one. Becky needs a job. She’d rather be gardening 4 days a week, but she’s going to do what she has to do for her family.

Participants discussed the ways in which Becky might both learn about and access the DPLA. She learns of the DPLA through a friend, but Becky relies on librarians for information gathering and other critical functions. When a site’s user interface fails her, she talks to her friends. Participants pointed out that Becky’s use case contains within it an embedded use case—perhaps a more significant one—about how libraries can share resources and tools with one another by way of the DPLA and its networked infrastructure. Participants discussed this idea as it related to the imagined DPLA Curriculum Sharing App, a resource proposed by participants reviewing this use case that would allow librarians and other users to create and share classes such as “How to Write an Effective Resume” or "How to Evaluate a Job Seeking Website." Becky’s use case epitomizes the idea of a DPLA in which tools and resources designed and created in one institution are given the ability to be reused and repurposed at other institutions across the country.

**Sumit Cherukuri (+1)**

*In Mountain View, California, father Vijay wants his son Sumit to read and learn during his summer vacation from school rather than watch TV and hang out on the corner. Sumit has a smartphone, iPad, and computer. Sumit has started finding trouble when he isn't at school. His dad isn't having that.*

In this use case, Sumit’s father, Vijay, has asked him to prepare a list of articles and other resources on the subject of Digital Citizenship. While participants agreed that conceptually what Sumit is learning how to do is evaluate content—separating the “good” websites from the “bad”— they also pointed out that Sumit might not have accomplished this objective, having produced what is essentially just a simple list of resources. Participants suggested that the DPLA could go beyond the DPLA described in this use case and connect people to the right resources and provide information literacy education, helping them to develop criteria that might construct useful frameworks for their research. The larger question of how the DPLA might successfully draw in web users was brought up.

**Darla Jefferson (+1)**

*Darla is in the first year of her Boatbuilding and Restoration program at the International Yacht Restoration School in Newport, RI. She is interested in researching the history of shipbuilding and the practices of shipwrights in the 18th century. She has access to a computer during the evenings in her dorm room, but she spends much of the day away from digital devices. After school, Darla wants to move*
to the Caribbean, where she will start a business building period-style yachts and doing yacht restoration work.

Participants agreed that Darla has unique, specific, somewhat obscure interests that could make the DPLA incredibly useful for her. To many participants, Darla’s use case is emblematic of the DPLA’s potential to bring together communities and collections in libraries and archives across the country in one place.

**Fern Micah** (currently out of scope)

Fiction lover Fern of Jerome, Arizona, thought that X book was fantastic, and hopes to find Y book and Z book based on her love of X book. Fern likes to read on her Kindle. Fern simply wants to read good books. She’s a heavy reader, and she wants it to be easy for her to find new books that suit her tastes.

Since the first iteration of the DPLA likely will not provide full access to in-copyright works, Fern was determined to be out of scope for the workshop. Participants agreed that her use case represented a long-term priority.

**Joanie Utter** (+1)

Senior citizen Joanie of Deadwood, South Dakota, has a box full of historically significant photographs she wants to “put on the computer.” Joanie has no computer. Joanie wants everyone to love her town as much as she loves her town.

Participants discussed the ways in which Joanie might learn about and access the DPLA. She relies heavily on librarians and library services, and she learns about the DPLA through her local library. Participants pointed out that Joanie’s case was interesting because, in terms of digitization, local institutions such as community colleges are often considered the primary agents of collecting and digitizing material rather than the individual with a shoebox of photographs.

**Wendy Pope** (+2)

Professor Wendy Pope teaches calculus at the University of Nebraska-Lincoln and is volunteering her time at the annual "All Girls-All Math" summer camp for high school girls around the state. She wants to find links to the best free mathematics e-textbooks and refer them to her campers. She has a campus office with high-speed Internet access and a desktop. Wendy found it lonely being one of the few women in her math and computer science classes when she was in school, so she wants to encourage more young women to pursue careers in science and engineering.

Wendy is both a content creator and a content consumer, and as such she needs a resource that combines discovery and access with content creation and dissemination.

DPLA front-end use cases: [http://dp.la/use-cases/](http://dp.la/use-cases/)
The Content & Scope Workstream was asked to look into how open courseware might fit into the DPLA.

**Chuck Henderson (+2)**

*Dairy farmer Chuck of Spring Valley, Wisconsin, is interested in breaking out of the cheddar business and producing some other kinds of cheese. Chuck has a desktop computer in his house and a dialup internet connection.*

Like Wendy Pope and Althea Hubbard, Chuck is searching for specialized “how to” guides and other related content, which suggests opportunities for the DPLA to bring him into contact with others who share his interests.

**The DPLA front-end: homepage mockups**

In the afternoon, participants broke into four groups to brainstorm core services and functional requirements for possible DPLA front-end portals, bearing in mind existing external services, the DPLA’s likely content and technical infrastructure, and the various ways in which the DPLA could offer unique services. The first half of the afternoon was devoted to creating mockups for a DPLA front-end homepage, with the idea being that common technical requirements and functionality would emerge from the groups’ discussions.

Photographs were taken of each group’s mockup and other written materials; these are included following the general summaries of each group’s design.

**Group 1**

In this group’s mockup, the DPLA exists both as a localized site, offering local services, and as a standalone, national site. Local institutions have the ability to personalize individual instances of the DPLA, using geo-location services to deliver localized content to users, but they can also link outward to the national version (via a “Go National” button). Users engage with the DPLA in three primary ways (*see:* Figure 1): Discover, Remix, and Interact (i.e., social networking). Users of this DPLA front-end also have the ability to associate objects into collections based on select criteria (*see:* Figures 1, 2); both they and others can interact with these collections via a DPLA social network.

*DPLA front-end use cases:* [http://dp.la/use-cases/](http://dp.la/use-cases/)
DPLA front-end use cases: http://dp.la/use-cases/

Figures 1, 2, 3 (clockwise from upper left)
Group 2

In this group’s mock-up, functionality is layered in such a way that “beginner” and “intermediate” activities such as simple search and featured content and algorithmically suggested content appear on the homepage (see: Figure 5), while more advanced activities such as advanced search and are available after navigating deeper into the site. There are four primary interface windows (see: Figure 5): Read, Research, Create, and Connect. Creating an account allows users to customize the look and substance of their homepage, among other abilities. Users are not required to create an account to access core functionality and underlying content, though account creation provides the ability to curate the user experience.

Group 3

In this group’s mock-up, users are presented with four quadrants arranged by functionality, with each button bringing the user to a specific suite of applications (see: Figure 6): Ask, Answer, Create, and Search. The interface and functionality attempts to replicate the research and creative process, and account creation allow users to add items to “My DPLA,” providing the ability to customize their experience.

DPLA front-end use cases: http://dp.la/use-cases/
Group 4

Based on media types ostensibly available via the DPLA (see: Figures 7, 8), this group’s mock-up features four major avenues for interaction (see: Figure 9): Find, Create, Community, and Help. There is institutional mediation/moderation of user-submitted content at some level, and user ranking factors into how user contributions are presented by the system (see: Figure 9). These factors inform where the contribution will appear in search results and whether the contribution will be subject to moderation. This group also incorporated a “National Digital Reference Service,” a question ticketing system in which any librarian (or user) can answer user-submitted questions. Section 508 accessibility compliance was also a prominent feature of this mock-up, with community guidelines and tools that enable users to ensure that content they generate is fully accessible.
DPLA front-end use cases: [http://dp.la/use-cases/](http://dp.la/use-cases/)

Figures 7, 8, 9 (clockwise from upper left)
Overall, participants mocked up DPLA front-ends that made use of clean, minimalist design, with homepage interactivity presented in manageable quadrants according to functionality (Read, Create, Explore, etc.). User accounts that store personal data and influence the look and substance of the DPLA homepage were consistent across groups, as was the need for curation tools that allow users to group, manage, and share collections of items. Participants also discussed the DPLA as both a locally deployable instance and a standalone national portal. The use of geo-location to deliver local content on homepage, tied with a ranking algorithm, was a popular feature among participants. Section 508 accessibility compliance, with community guidelines and tools that allow users to ensure content they generate is fully accessible, was a key feature as well.

The DPLA front-end: applications inspired by the use cases

The second half of the afternoon was devoted to describing applications—pieces of software that query the DPLA platform via its API to obtain content and metadata and use it creatively—that address the needs of a targeted audience, namely those expressed in the use cases designated “+1” (top priority) earlier in the day.

Group 1

Use case: Orion Velasquez

Target audience: students and teachers

Application: This application is essentially a Learning Management System (LMS) with a DPLA application built in. Based on content available via the DPLA, this localized app allows students and teachers to search and retrieve results, save items into baskets, create original content using an “editor” function, push original content out into the DPLA catalog (if desired), and manage and achieve various “accomplishments.” An administrator panel lets teachers monitor students’ baskets, accomplishments, and search terms, providing opportunities for teachers to step in and give information literacy assistance when search terms or collected items are significantly off topic.

DPLA front-end use cases: http://dp.la/use-cases/
**Group 2**

*Use case: Joanie Utter*

**Target audience:** people interested in digitizing local content

**Application:** Participants described an application that operates between a cultural heritage institution and an end user to facilitate digitization, description, and public posting of unique local content, such as letters, photographs, audiovisual items, genealogical materials, etc. Using this application, users with items they would like to digitize are put in contact with the institution, and a one-on-one consultation is arranged if the match is right. The institution then assists users by digitizing their items, instructing them through an item-level description form, and eventually seeing that their content is uploaded to a collection. Users would be strongly encouraged to place their items in the public domain. Procedures for dealing with takedowns and other rights-related issues would be factored into this application. Participants also discussed a component of this application that would allow users to submit digital objects without significant institutional mediation.

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**Group 3**

*Use case: Carl Sanderson*

**Target audience:** people interested in accessing and sharing data sets

**Application:** This application (see: Figure 11) would allow users to publicize freely available data sets. In this application, specialized metadata informs a feedback mechanism that indicates when the data has been updated or modified.

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**Group 4**

*Use case: Darla Jefferson*

**Target audience:** experts, holders of local and unique content or knowledge

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DPLA front-end use cases: [http://dp.la/use-cases/](http://dp.la/use-cases/)
Application: Under the features proposed in this application (see: Figure 12), users who conduct an advanced search are brought to a results page that displays all relevant content as well as links/buttons to an associated “expert community” page, when available. These “expert community” pages are created by a user or group of like-minded users who have petitioned and been approved by DPLA moderators for a page based on a subject, discipline, object, or collection of objects. The pages are modular and customizable, allowing for growth over time. Particularly active groups appear higher in DPLA search results, while less active groups appear lower. Inactive groups and their associated content are archived.

Features proposed

Participants generated a wide variety of possible functionalities for a number of different DPLA front-end websites, but a few features were consistent:

- Geo-location to deliver local content on the front page, tied with a ranking algorithm
- User accounts that store personal data and influence localization of user experience
- Ability to create curated collections for public access, sharing, and commenting
- Social networking system that allows users to comment on/annotate, rate, tag, and share individual items with others
- Functionalities that are “widgetized” so they can be implemented in other library websites
- Ability to customize the front page (personal curation)
- Full text preview
- Section 508 accessibility compliance, with community guidelines and tools that allow users to ensure content they generate is fully accessible

Next steps

Front-end RFP

Based in part on input gathered from this workshop, the DPLA Secretariat and its technical advisors have drafted a “Request for Proposal” (RFP) for the design and development of a prototype front-end portal for the DPLA, to be launched in April 2013.
This RFP was published in early August 2012. A design firm is expected to be chosen and work is slated to begin by early September 2012.

Institutional use cases
Participants recommended that members of the Content and Scope, Technical Aspects, and Audience & Participation workstreams collaborate on an additional set of use cases that spell out hypothetical interactions between different types of cultural heritage institutions and the DPLA.
Appendix I: Use case review breakout notes

- **Orion Velasquez (+1)**
  - *Notes from whiteboard:*
    - We have content!
    - Personal space – ownership
    - Social space
    - Good UX (user experience) *extra* important
    - Reduced reliance on librarians
    - Learns of DPLA online and through teacher

- **Braulio Estes**
  - *Notes from whiteboard:*
    - Needs:
      - Streaming audio—online content combined with digitized sheet music (operation)
      - Musical phrase search (application)
      - Apps to get to content
      - Fair use [test] (policy consideration)
      - Content “Commons”
    - Connects to:
      - Joanie Utter
      - Carl Sanderson
      - D. Wadsworth Cunningham
      - Wendy Pope—end user, content creator
      - Orion Velasquez—search and discovery

DPLA front-end use cases: [http://dp.la/use-cases/]
• **Althea Hubbard (+1)**
  - **Notes from whiteboard:**
    - DPLA could be a resource for similar “works” that she has to write [content]
    - Access to “open” courses and supporting services [content]
    - Provides a DPLA “hook” for locally provided services and link to library [services]
    - Connects to:
      - Orion Velasquez—writing a paper
      - Becky Nielson—library provided services (course?)
      - Wendy Pope—connects to online course creation

• **D. Wadsworth Cunningham (+1)**
  - **Notes from whiteboard:**
    - **Goals:**
      - Open access journal search
        - Directory of full text resources (DOA)
      - Access to datasets
      - Open access to research
      - Issues for DPLA advocacy
      - Article analytics

DPLA front-end use cases: [http://dp.la/use-cases/]
• **Becky Nielson**
  o *Notes from whiteboard:*
    - UX (user experience) fail = Becky talks to friend
    - Tool sharing → more about librarian as use cases
    - Potentially speaks to librarian, learns of DPLA through friend
    - Embedded use case: librarians with resource sharing

• **Joanie Utter**
  o *Notes from whiteboard:*
    - Heavy reliance on librarians and library services
    - Learns of DPLA through libraries
- **Wendy Pope**
  - *Notes from whiteboard:*
    - Content creator
    - Content consumer
    - Needs:
      - Crowd-sourced ranking service of resources (app)
      - Connection to repository of math books
      - Content “collection” or curation app
      - Fair use [test] (policy consideration)
    - Connects to:
      - Braulio Estes—discovery and access of content
      - Althea Hubbard—online courses
      - Carl Sanderson—content creator, content contributor
      - Joanie—visual “collections” app, personal passion

- **Chuck Henderson**
  - *Notes from whiteboard:*
    - DPLA
      - Online tutorials
      - “How To”
      - “Other types of content”
        - Ephemera
        - Recipes
      - Build network of interest
    - Connects to:
      - Althea Hubbard—“how to” write a paper
      - Wendy Pope—creates online tutorials

DPLA front-end use cases: [http://dp.la/use-cases/](http://dp.la/use-cases/)