The DPLA API

Code4Lib — 9 Feb 2015 — Portland, OR

Introduction

- Workshop goals
- Overview of workshop structure
- DPLA staff intros

Overview

- API Basics
- Getting a DPLA API key
- Your first API request
- Requests in depth
- DPLA Metadata
- Clients, resources, and app ideas

--- BREAK ---

- Building an app

A Wealth of Knowledge
explore 8,417,029 items from libraries, archives, and museums

Search the Library

Apps
The DPLA is a platform. Developers make apps that use the library’s data in many different ways. Here are just a few.  App Library »
DPLA: A Platform to Build On
DPLA & the Public Option

Andrew Carnegie and wife. Courtesy Boston Public Library via Digital Commonwealth
But really, what’s an API?

• Method of communication with another software system

• Defines “language” for interaction

• Provides a structure for making requests of that system

• Also provides a structure for responses from that system
Requesting an API Key

● Send a HTTP POST request to:
   http://api.dp.la/v2/api_key/your@email.com

● For example (using cURL):
   curl -X POST http://api.dp.la/v2/api_key/me@me.us

● Let us know if you need help!

● Other tools (please install them!):
  ○ Chrome: Postman, JSONView
  ○ Firefox: RESTClient, JSONView
Requesting an API Key

Postman:

http://api.dp.la/v2/api_key/me@code4lib.org

REST Easy:

POST http://api.dp.la/v2/api_key/me@code4lib.org

Response:  
{"message":"API key created and sent via email. Be sure to check your Spam folder, too."}
**Anatomy of API Request**

- **Domain**: Always the same
- **Action**: "items" or "collections"

```plaintext
http://api.dp.la/v2/items?
q=kittens&api_key=0123456789
```

- **Protocol**: Always the same
- **Version**: If unspecified, will default to the most current stable version.
- **Parameters**: Begin with "?"
  - Separated with "&"
  - "api_key" parameter is required
  - The order in which the key-value pairs appear is not important.

No matter what software tool you use to communicate with the DPLA API (web browser, Postman, cURL, JavaScript, etc.), the anatomy of the API request will always be the same.
First API Request

I want all of the items in the DPLA that have to do with ducks.

First API Request

Step 1: Base URL:

http://api.dp.la/v2/items

Response:  
{"message": "Unauthorized: Missing, invalid or inactive api_key"}
First API Request

Step 2: API Key:

http://api.dp.la/v2/items?api_key=0123456789

Postman:

Response:  

{  count: 8417029, [...]  }

This request returns all of the items in the DPLA.
First API Request

Step 3: Query term

http://api.dp.la/v2/items?api_key=0123456789&q=ducks

Add the query term parameter using the same steps you used to add your api key.

Response:

```
{
    count: 1635,
    start: 0,
    limit: 10,
    docs: [
        {
            @context: "http://dp.la/api/items/context",
            dataProvider: "Arizona State Library, Archives and Public Records",
        }
    ]
}
```

This request returns items with “ducks” anywhere in any field.
First API Response

Responses are JSON-LD

Response:

```json
{
  count: 1635,
  start: 0,
  limit: 10,
  docs:
    - {
        @context: "http://dp",
        isShownAt: "http://u",
        dataProvider: "Arizo",
        @type: "ore:Aggregat",
        provider: {
            @id: "http://dp.la"
        }
    }
    ...
```

- **count** = the number of matches for a query
- **start** = the index of the first document
- **limit** = the number of documents returned
- **docs** = array of documents

Full documentation: [http://dp.la/info/developers/codex/responses/]
More requests!

Let’s try some more requests!

- What do you want?
  - Booleans & wildcards
  - Searching within fields

- How do you want it?
  - Fetching certain fields
  - Sorting and faceting
  - Pagination

- Fetching specific items

Full documentation: [http://dp.la/info/developers/codex/requests/](http://dp.la/info/developers/codex/requests/)
Booleans & Wildcards

**AND**

\[ q=ducks+AND+geese \]

This returns all items with both “ducks” and “geese” in any field.

**OR**

\[ q=ducks+OR+geese \]

This returns all items with either “ducks” or “geese” in any field.

**Wildcard**

\[ q=migrat* \]

This returns all items with “migration”, “migrating”, “migrate,” etc. in any field.

Don’t forget to include your API key param!
Searching within Fields

Textual

You can search for terms with almost any textual field.

[sourceResource.title=duck]

*Items with duck anywhere in the title.*

Temporal

[sourceResource.date.after=1910]
[sourceResource.date.before=1920]

*Items created between 1910 and 1920*

Spatial

[sourceResource.spatial=oregon]

*Items that are in or about Oregon*
Fetching certain fields

If you don’t want the whole document, you can fetch only certain fields.

**Single Field**
```
fields=sourceResource.title
```
*Returns title field only.*

**Multiple Fields**
```
fields=id,sourceResource.title
```
*Returns id and title fields.*
Sorting results

Sort by title

 sort_by=sourceResource.title

Sort by distance to Boston

 sort_by_pin=42.3,-71

 &sort_by=sourceResource.spatial.coordinates
**Facets** tell you the most common values within your results for specified fields.

```json
facets=sourceResource.publisher
```

Scroll to the bottom of your results to see facets:

```json
- facets: {
    - sourceResource.publisher: {
        _type: "terms",
        missing: 4647654,
        total: 3941839,
        other: 3087651,
        terms: [
            { term: "University of Southern California. Libraries",
              count: 296885
            }
        ]
    }
}
```
Pagination

By default, you will get 10 items (ie. "docs"). Get the next ten items by incrementing page.

```
page=2
```

Pull more items per page with page_size.

```
page_size=100
```

You can use page and page_size in combination.

```
page=2&page_size=100
```

Check the start and limit values in your results to see page and page_size at work.
Fetching a specific item

If you know the ID of the item you want, you can fetch it.

http://api.dp.la/v2/items/3bddac9b162f90e304fc24cf078ff2a
?api_key=0123456789
Combining Parameters

Combine parameters to get exactly what you want.

q=duck+OR+goose
&sourceResource.date.after=1910
&provider.name=smithsonian
&fields=id,sourceResource.title
&sort_by=sourceResource.date.begin
&facets=sourceResource.type
&page_size=20
@api_key=0123456789
DPLA’s Metadata Application Profile
History

- Originally developed between 2012 and 2013
- Based on the Europeana Data Model
- Currently in version 3.1
- Undergoing update to version 4
Namespaces

- Dublin Core Terms (dcterms): [http://purl.org/dc/terms/](http://purl.org/dc/terms/)
- World Geodetic System (wgs84): [http://www.w3.org/2003/01/geo/wgs84_pos#](http://www.w3.org/2003/01/geo/wgs84_pos#)
<table>
<thead>
<tr>
<th>Label</th>
<th>Property, JSON-LD expression</th>
<th>Usage</th>
<th>Syntax Schema or Vocabulary</th>
<th>Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection*</td>
<td>dcterms:isPartOf, .sourceResource.collection</td>
<td>URI of collection or aggregation of which SR is a part</td>
<td>min 0, max unbounded</td>
<td></td>
</tr>
<tr>
<td>Contributor</td>
<td>dc:contributor, .sourceResource.contributor</td>
<td>Entity responsible for making contributions to SR</td>
<td>min 0, max unbounded</td>
<td></td>
</tr>
<tr>
<td>Creator*</td>
<td>dc:creator, .sourceResource.creator</td>
<td>Entity primarily responsible for making SR</td>
<td>min 0, max unbounded</td>
<td></td>
</tr>
<tr>
<td>Date*</td>
<td>dc:date, .sourceResource.date</td>
<td>Date value as supplied by data provider</td>
<td>W3CDTF, EDTF, local</td>
<td>min 0, max unbounded</td>
</tr>
<tr>
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</tr>
<tr>
<td>Description</td>
<td>dc:description, .sourceResource.description</td>
<td>Includes but is not limited to: an abstract, a table of contents, or a free-text account of SR</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Extent</td>
<td>dcterms:extent, .sourceResource.extent</td>
<td>Size or duration of SR</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Format*</td>
<td>dc:format, .sourceResource.format</td>
<td>File format, physical medium or dimensions of SR</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Identifier</td>
<td>dc:identifier, .sourceResource.identifier</td>
<td>ID of SR within a given context</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Language*</td>
<td>dc:language, .sourceResource.language</td>
<td>Language(s) of SR. Strongly recommended for text materials.</td>
<td>dcterms: iso6393</td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
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</tr>
<tr>
<td>Place*</td>
<td>dcterms:spatial, .sourceResource.spatial</td>
<td>Spatial characteristics of SR (usually a literal value in this version)</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Publisher*</td>
<td>dc:publisher, .sourceResource.publisher</td>
<td>Entity responsible for making the SR available, typically the publisher of a text (not edm:dataProvider or edm:provider)</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Relation</td>
<td>dc:relation, .sourceResource.relation</td>
<td>Related resource</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
<td>Syntax Schema or Vocabulary</td>
<td>Obligation</td>
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</tr>
<tr>
<td>Rights*</td>
<td>dc:rights, .sourceResource.rights</td>
<td>Information about rights held in and over SR. Typically, rights information includes a statement about various property rights associated with SR, including intellectual property rights.</td>
<td></td>
<td>min 1, max unbounded</td>
</tr>
<tr>
<td>Genre</td>
<td>edm:hasType, .sourceResource.specType</td>
<td>Captures categories of objects in a given field. Does not capture aboutness.</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>State Located In</td>
<td>edm:currentLocation, .sourceResource.stateLocatedIn</td>
<td>Name of the state in which the SR is held</td>
<td>dcterms: iso3166 [1,2]</td>
<td>0 to 1</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
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<td>Obligation</td>
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</tr>
<tr>
<td>Subject*</td>
<td>dc:subject .sourceResource. subject</td>
<td>Topic of SR. <em>In JSON-LD, the property is an object with a name property, which maps to skos:prefLabel.</em></td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Title*</td>
<td>dc:title .sourceResource.title</td>
<td>Primary name given to SR</td>
<td></td>
<td>min 1, max unbounded</td>
</tr>
<tr>
<td>Type*</td>
<td>dc:type, .sourceResource.type</td>
<td>Nature or genre of SR</td>
<td>dcmitype</td>
<td>min 0, max unbounded</td>
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<tr>
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<td>Property, JSON-LD expression</td>
<td>Usage</td>
<td>Syntax Schema or Vocabulary</td>
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</tr>
<tr>
<td>File Format</td>
<td><code>dc:format, [property].format</code></td>
<td>Web resource format</td>
<td>dcterms:imt</td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Rights</td>
<td><code>dc:rights, [property].rights</code></td>
<td>Statement about various property rights associated with the webResource, including intellectual property rights.</td>
<td></td>
<td>min 0, max unbounded</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
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</tr>
<tr>
<td>Standardized Rights Statement*</td>
<td>edm:rights, <code>[property]</code>. edmRights</td>
<td>A property that will be mandatory in future releases. The value given here should be the rights statement that applies to the digital representation as given (for example) in edm:object or edm:isShownAt/By, when these resources are not provided with their own edm:rights. This property requires a controlled set of values.</td>
<td>dcterms: URI</td>
<td>0 to 1</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
<td>Syntax Schema or Vocabulary</td>
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</tr>
<tr>
<td>Aggregated SR</td>
<td>edm: aggregatedCHO, .aggregatedCHO</td>
<td>Unambiguous ID to SR</td>
<td>dcterms: URI</td>
<td>1</td>
</tr>
<tr>
<td>Data Provider*</td>
<td>edm:dataProvider, .dataProvider</td>
<td>The organization or entity that supplies data to DPLA through a Provider. If a Data Provider provides data directly to DPLA (i.e. not via an aggregator) the values in edm:dataProvider and edm:provider will be the same.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
<td>Syntax Schema or Vocabulary</td>
<td>Obligation</td>
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</tr>
<tr>
<td>Digital Resource Source Record</td>
<td>dpla:originalRecord, .originalRecord</td>
<td>Complete original record.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Intermediat e Provider</td>
<td>dpla: intermediateProvider, . intermediateProvider</td>
<td>An intermediate organization that selects, collates, or curates data from a Data Provider that is then aggregated by a Provider from which DPLA harvests. The organization must be distinct from both the Data Provider and the Provider in the data supply chain.</td>
<td></td>
<td>min 0, max 1</td>
</tr>
<tr>
<td>Is Shown At*</td>
<td>edm:isShownAt, . isShownAt</td>
<td>Unambiguous URL reference to digital object in its full information context.</td>
<td>dcterms:URI</td>
<td>1</td>
</tr>
<tr>
<td>Object*</td>
<td>edm:object, . object</td>
<td>Unambiguous URL to the DPLA content preview.</td>
<td>dcterms:URI</td>
<td>1</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
<td>Syntax Schema or Vocabulary</td>
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</tr>
<tr>
<td>Provider*</td>
<td>edm:provider, .provider</td>
<td>In the DPLA context, a Service or Content Hub providing access to the Data Provider’s content. May contain the same value as Data Provider. (literal value in this version)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Standardized Rights Statement*</td>
<td>edm:rights, .rights</td>
<td>A property that will be mandatory in future releases. The value given here should be the rights statement that applies to the digital representation as given (for example) in edm:object or edm:isShownAt/By, when these resources are not provided with their own edm:rights. This property requires a controlled set of values.</td>
<td>dcterms:URI</td>
<td>0 to 1</td>
</tr>
<tr>
<td>Label</td>
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<td>Syntax Schema or Vocabulary</td>
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</tr>
<tr>
<td>Collection Title*</td>
<td>dc:title, .sourceResource. collection.title</td>
<td>Name of the collection or aggregation</td>
<td></td>
<td>0 to 1</td>
</tr>
<tr>
<td>Collection Description*</td>
<td>dc:description, .sourceResource. collection.description</td>
<td>Free-text account of aggregation, for example an abstract or content scope note</td>
<td></td>
<td>0 to 1</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
<td>Syntax Schema or Vocabulary</td>
<td>Obligation</td>
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<td>--------------------------------------------</td>
<td>-----------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Name</td>
<td>skos:prefLabel, .sourceResource.spatial.name</td>
<td>Place name as mapped from partner data</td>
<td>dcterms: iso3166[1,2]</td>
<td>1</td>
</tr>
<tr>
<td>City</td>
<td>dpla:city, .sourceResource.spatial.city</td>
<td>Name of a city (literal)</td>
<td>dcterms: iso3166[1,2]</td>
<td>0 to 1</td>
</tr>
<tr>
<td>State</td>
<td>dpla:state, .sourceResource.spatial.state</td>
<td>ISO 3166-2 code for a U.S. state or territory</td>
<td>dcterms: iso3166[1,2]</td>
<td>0 to 1</td>
</tr>
<tr>
<td>County</td>
<td>dpla:county, .sourceResource.spatial.county</td>
<td>Name of a U.S. county (literal)</td>
<td>dcterms: iso3166[1,2]</td>
<td>0 to 1</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
<td>Syntax Schema or Vocabulary</td>
<td>Obligation</td>
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<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Region</td>
<td>dpla:region, .sourceResource.spatial.region</td>
<td>Name of a region, e.g., &quot;Upstate New York&quot; (literal)</td>
<td></td>
<td>0 to 1</td>
</tr>
<tr>
<td>Country</td>
<td>dpla:country, .sourceResource.spatial.country</td>
<td>ISO 3166-1 code for a country</td>
<td>dcterms: iso3166[1,2]</td>
<td>0 to 1</td>
</tr>
<tr>
<td>Coordinates</td>
<td>wgs84_pos:lat_long, .sourceResource.spatial.coordinates</td>
<td>Latitudinal and longitudinal coordinates for the most specific geographic location provided</td>
<td>wgs84</td>
<td>0 to 1</td>
</tr>
<tr>
<td>Label</td>
<td>Property, JSON-LD expression</td>
<td>Usage</td>
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</tr>
<tr>
<td>Original Source Date*</td>
<td>skos:prefLabel .[property]. displayDate</td>
<td>Date value as supplied by data provider</td>
<td>W3CDTF, EDTF, local</td>
<td>1</td>
</tr>
<tr>
<td>Begin</td>
<td>edm:begin .[property].begin</td>
<td>Date timespan started</td>
<td>EDTF</td>
<td>0 to 1</td>
</tr>
<tr>
<td>End</td>
<td>edm:end .[property].end</td>
<td>Date timespan finished</td>
<td>EDTF</td>
<td>0 to 1</td>
</tr>
</tbody>
</table>
count: 1192,
start: 0,
limit: 10,

docs: [{
   @context: "http://dp.la/api/items/context",
   isShownAt: "http://digitalcollections.nypl.org/items/510d47d9-a883-a3d9-e040-e00a18064a99",
   dataProvider: "Wallach Division: Print Collection. The New York Public Library",
   @type: "ore:Aggregation",
   provider: {
      @id: "http://dp.la/api/contributor/nypl",
      name: "The New York Public Library"
   },
   ingestionSequence: 13,
   ingestDate: "2014-09-05T19:12:13.941061Z",
   _rev: "1-f8936a07c64a1bc061a12c1c0f0a5a18",
   id: "f5dce80945a461d8a60c3b2a7afdae4d",
   aggregatedCMO: "#sourceResource",
   _id: "nypl--510d47d9-a883-a3d9-e040-e00a18064a99",
   sourceResource: {
      @type: "CreativeWork",
      spatial: [
         {
            name: "London"
         }
      ],
      subject: [
         {
            name: "Animals"
         },
         {
            name: "Lithographs--Hand-colored"
         }
      ],
   rights: "The New York Public Library is interested in learning more about items you've seen on our websites or elsewhere on dp.la. Please contact us at info@nypl.org if you are the owner of any images on dp.la and have questions about using them."
   relation: "Groups of cattle, drawn from nature, by T.S. Cooper. 1839",
   collection: {
      id: "1c07d2e29d6e95bc06f39a351051f66a",
      title: "Groups of cattle, drawn from nature, by T.S. Cooper. 1839."
   }
}]}
count: 1192,
start: 0,
limit: 10,

docs: [
  - {
    @context: "http://dp.la/api/items/context",
    isShownAt: "http://digitalcollections.nypl.org/items/510d47d9-a883-a3d9-e040-e00a18064a99",
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    provider: {
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      name: "The New York Public Library"
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    sourceResource: {
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          name: "London"
        }
      ],
      subject: [
        {
          name: "Animals"
        },
        {
          name: "Lithographs--Hand-colored"
        }
      ],
      rights: "The New York Public Library is interested in learning more about items you've seen on our websites or elsewhere on the internet. Please share your feedback with us."
    },
    relation: "Groups of cattle, drawn from nature, by T.S. Cooper. 1839",
    collection: {
      id: "1c07d2e29d6e95bc06f39a351051f66a",
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  }
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}]}
The New York Public Library is interested in learning more about items you've seen on our websites or elsewhere online.

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],
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],
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contributor: [
  "Hullmandel, Charles Joseph (1789-1850)"
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description: "Samuel Putnam Avery",
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  }
],
type: "image",
date: {
  displayDate: "1838-1838",
  end: "1838",
  begin: "1838"
},
publisher: [
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  }
}
Real World Example

Goats
The DPLA is a platform that enables new and transformative uses of our digitized cultural heritage. The DPLA’s application programming interface (API) and open data can be used by software developers, researchers, and others to create novel environments for learning, tools for discovery, and engaging apps.

http://dp.la/apps
This page contains submissions to our open hacking ideas and projects form. Have a great idea for a DPLA app or tool? Share it with the community by filling out this quick form. To see what others have already created using our open API, check out the App Library.

<table>
<thead>
<tr>
<th>Tell us about your idea</th>
<th>What should we call it?</th>
<th>Who should do it?</th>
<th>Name (Affiliation)(Email)</th>
<th>Anything else to add?</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Try to match Creator names in DPLA to NY Times obituaries. The app would find all items by a person and then link them to that person's obit to learn more about them. It might search beyond creator (potentially for genealogical research?) and help to mine birth/death dates to establish qualities like copyright. I realize the subset of names would be small but it's the same idea as linking to Wikipedia except with a more reliable&quot;scholarly acceptable&quot; (loaded concept - I know) source.</td>
<td>Dead but not forgotten. Hmmm probably too morbid</td>
<td>I'd like someone else to do it.</td>
<td>Amy Ruedersdorf (DPLA) (<a href="mailto:amy@dp.la">amy@dp.la</a>)</td>
<td>I'm pretty sure I stole the idea from someone so if that someone comes forward I will totally give them credit.</td>
<td>6/18/14</td>
</tr>
<tr>
<td>There should be a keyboard mapping tool that allows users to search bibliographic data that uses extended Latin characters by their nearest Latin equivalent. For instance: in the case of ANSEL characters this is already well-supported for characters like the Turkish dotless i (ı) and the Polish l with stroke (ł). The same functionality is not yet widely supported for characters commonly found in African bibliographic data such as open o (ö) used in Akan and eng (ŋ) used in Mande languages. Native American languages including Sioux would also stand to benefit. Although I cannot do the code myself I'd be happy to supply data including equivalencies to anyone wanting to map between input and stored data in this regard.</td>
<td>Keyhopper</td>
<td>I'd like someone else to do it.</td>
<td>Charles Riley (Yale University Library) (<a href="mailto:charles.riley@yale.edu">charles.riley@yale.edu</a>)</td>
<td>Could also be useful for certain Greek and Cyrillic use cases—although mapping in the direction of input in Cyrillic to data in Latin would be potentially problematic (as in phishing).</td>
<td>8/26/14</td>
</tr>
<tr>
<td>Perma.cc aims to eliminate link-rot in publications. With Perma.cc any author can go to thePerma.cc website and input a URL. Perma.cc downloads the material at that URL and gives back a new URL (a &quot;Perma.cc link&quot;) that can then be inserted in a paper. Perma.cc is partnering with libraries like DPLA in a number of ways. One of the key partnership areas is that of</td>
<td>Perma.cc vesting</td>
<td>I'd like someone else to do it.</td>
<td>Sam Klein</td>
<td>Idea proposed as part of DPLAfest workshop.</td>
<td>11/16/13</td>
</tr>
</tbody>
</table>
Clients & Resources

https://github.com/dpla/dpla-discovery

- DPyLA (Python)
- PHP-DPLA
- rDPLA (R)
- Plus others for Java, Node.js, etc...
Building an app
Wrap-Up

What we’ve accomplished:

- Got API key
- Practiced a variety of requests
- Interpreted DPLA MAP metadata
- Located DPLA API documentation
- Started building an app using the DPLA API

Great job!
Let’s celebrate.

Leslie Jones. Dachshund drinking from a water glass.
Stay involved!

Twitter: @dpla

Apps library: [http://dp.la/apps](http://dp.la/apps)

Become a community rep!


DPLAFest 2014, Indianapolis, April 17-18
Feedback survey

Please give us your feedback!

https://www.surveymonkey.com/s/DZ9F27F