THE TERRIBLE TWOS

Year in review & future directions

- content
- features
- usage
Institutions

Growth in the Past Year

- 2014: 84 institutions
- 2015: 126 institutions
- 2016: 181 institutions
CONTENT: GROWTH IN THE PAST YEAR

Collections

- Collections growth over the past year:
  - 2014: 211
  - 2015: 425
  - 2016: 669
CONTENT: GROWTH IN THE PAST YEAR

Hosted items

![Graph showing growth in hosted items from 2014 to 2016. The y-axis represents items with values 46,143, 133,854, and 191,854 for the years 2014, 2015, and 2016 respectively.]
GROWTH IN THE PAST YEAR

Harvested items

Year: 2014 2015 2016
Harvested Items: 27,289 48,258 213,473
GROWTH IN THE PAST YEAR

Total items

- 73,702 in 2014
- 182,112 in 2015
- 405,327 in 2016
CONTENT: GROWTH IN THE PAST YEAR

Total files

![Graph showing growth in total files from 2014 to 2016.](chart.png)

- **2014:** 75,923 files
- **2015:** 171,859 files
- **2016:** 323,400 files

Yearly file count continues to rise.
Cats Vs Dogs

http://ark.digitalcommonwealth.org/ark:/50959/6682xk62w
<table>
<thead>
<tr>
<th>count</th>
<th>format</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>177,181</td>
<td>Photographs</td>
<td>+75%</td>
</tr>
<tr>
<td>104,287</td>
<td>Letters/Correspondence</td>
<td>+11,054%</td>
</tr>
<tr>
<td>38,625</td>
<td>Postcards/Cards</td>
<td>+24%</td>
</tr>
<tr>
<td>34,156</td>
<td>Documents</td>
<td>+23%</td>
</tr>
<tr>
<td>24,367</td>
<td>Manuscripts</td>
<td>+1,392%</td>
</tr>
<tr>
<td>17,330</td>
<td>Prints</td>
<td>+261%</td>
</tr>
</tbody>
</table>
### CONTENT: FORMATS

<table>
<thead>
<tr>
<th>count</th>
<th>format</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,411</td>
<td>Maps/Atlases</td>
<td>+5%</td>
</tr>
<tr>
<td>3,051</td>
<td>Newspapers</td>
<td>+616%</td>
</tr>
<tr>
<td>2,987</td>
<td>Film/Video</td>
<td>+2%</td>
</tr>
<tr>
<td>2,724</td>
<td>Drawings/Illustrations</td>
<td>+34%</td>
</tr>
<tr>
<td>2,069</td>
<td>Paintings</td>
<td>+80%</td>
</tr>
<tr>
<td>1,507</td>
<td>Ephemera</td>
<td>+9%</td>
</tr>
<tr>
<td>count</td>
<td>format</td>
<td>% increase</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>1,285</td>
<td>Posters</td>
<td>+6%</td>
</tr>
<tr>
<td>1,282</td>
<td>Periodicals</td>
<td>+17%</td>
</tr>
<tr>
<td>949</td>
<td>Books</td>
<td>+37%</td>
</tr>
<tr>
<td>708</td>
<td>Audio recordings</td>
<td>+200%</td>
</tr>
<tr>
<td>658</td>
<td>Objects/Artifacts</td>
<td>+26%</td>
</tr>
<tr>
<td>185</td>
<td>Albums/Scrapbooks</td>
<td>+78%</td>
</tr>
</tbody>
</table>
FEATURES
FEATURES: “WALL” VIEW
FEATURES: SLIDESHOW VIEW
FEATURES: FULL-TEXT SEARCHING
FEATURES: FULL-TEXT SEARCHING
FEATURES: VIRTUAL LOCAL REPOSITORY

Discover historical collections from Boston Public Library

Map
Use the map to search for materials from locations across the globe.

Collections
Explore curated collections of historic materials grouped by topic, date, location, or format.

Formats
Photographs, maps, postcards, manuscripts, books, artifacts, and more.

About This Site
An online library of photographs, manuscripts, audio recordings, and other materials of historical interest from the Boston Public Library.

News & Announcements
- “The Black Community in Colonial Dorchester and Boston” Lecture Turns into a Spirited Discussion Among Historians.
FEATURES: VIRTUAL LOCAL REPOSITORY

Customizable turn-key applications that display content (metadata & images) hosted by the main Digital Commonwealth repository.

- Display-only

- Requirements:
  - Ruby on Rails
  - Database (MySQL, Postgres, etc.)
  - Web server (Apache, NGINX, etc.)

- Open-source
  - github.com/boston-library/commonwealth-vlr-engine
The IIIF Presentation API specifies a web service that returns JSON-LD structured documents that describe the structure and layout of a digitized object or collection of images.

http://iiif.io/api/presentation/2.0/
FEATURES: IIIF PRESENTATION API MANIFEST

- Standard maintained by the International Image Interoperability Framework (IIIF) group
- Adopted by Stanford, Yale, Princeton, Harvard, etc.
- Re-use and display of metadata, images & sequences
- Enables rich viewing experience in applications (Mirador, Diva.js, Wellcome Player, etc.)
Features: IIIF Presentation API Manifest

Add "/manifest" to DC URL:

- http://ark.digitalcommonwealth.org/ark:/50959/s4655h10k/manifest
FEATURES: BEHIND THE SCENES

SERVER-SIDE

Upgrades to:
- Blacklight
- Loris
- Image processing
- Blacklight-Maps
- OpenSeadragon-Rails
- Linked Data Fragments
FEATURES: UPCOMING

SEARCH INTERFACE

- Institution logos
- File downloads
- MLA and APA citation styles
- Slideshow enhancements
- Display georeferenced maps
- Export folder items as PowerPoint or PDF
FEATURES: UPCOMING

ADMINISTRATIVE & CONTENT

- Internet Archive harvest (40K books)
- Usage statistics
- Basic metadata editor
- Persistent URLs for harvested items
- Fedora 4
FEATURES: UPCOMING

ADMINISTRATIVE & CONTENT

MODS XML to RDF

- MODS and RDF Descriptive Metadata Subgroup
- Amherst College, NYPL, UNC Chapel Hill, Columbia U., Indiana U., Emory, U. of Alberta
- https://wiki.duraspace.org/display/hydra/MODS+and+RDF+Descriptive+Metadata+Subgroup
FEATURES: UPCOMING

ADMINISTRATIVE & CONTENT

◦ Official Institution Accounts
  ▫ Accounts that are used for administrative functionality for an institution
  
  ▫ https://www.digitalcommonwealth.org/feedback
    ■ “login / sign up for account”
  
  ▫ Coming by the end of April
Amherst College Archives & Special Collections
Massachusetts > Hampshire (county) > Amherst

Digitizing unique and rare materials is an important part of the mission of Amherst College Library, which makes these materials available through Amherst College Digital Collections (ACDC). Many of those objects are now also available through Digital Commonwealth for all to use.

The bulk of the Amherst College digital collections shared here are drawn from the Archives & Special Collections, which houses Amherst College’s rare books, literary manuscripts, written materials of unique value, historic photographs, sound recordings, moving image recordings, and a large collection of objects. Highlights of the collection include Native American literature, medieval manuscripts, and materials created by Walt Whitman, William Wordsworth, and Edward Hitchcock. It is particularly strong in topics related to natural history and missionary activity and is continually expanding.

- Visit institution website

Digital Collections: (2)

- Archives & Special Collections - Amherst College
- Emily Dickinson Collection - Amherst College
<table>
<thead>
<tr>
<th>Collection ID</th>
<th>Views Average</th>
<th>Weight</th>
<th>Total Views</th>
<th>Average Time</th>
<th>Total Time</th>
<th>Exits</th>
<th>Steven Calculated Average Time</th>
<th>Zero Views</th>
<th>One Views</th>
<th>Two Plus Views</th>
<th>5+ Viewed Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.7639369579</td>
<td>97</td>
<td>268</td>
<td>30.293060585</td>
<td>10322</td>
<td>111</td>
<td>65.117112523</td>
<td>27</td>
<td>24</td>
<td>46</td>
<td>56</td>
</tr>
<tr>
<td>2</td>
<td>4.10479442</td>
<td>175</td>
<td>327</td>
<td>69.541786568</td>
<td>57204</td>
<td>124</td>
<td>81.741020523</td>
<td>12</td>
<td>26</td>
<td>139</td>
<td>65</td>
</tr>
<tr>
<td>3</td>
<td>1.113772651</td>
<td>187</td>
<td>186</td>
<td>26.904188952</td>
<td>8732</td>
<td>25</td>
<td>54.282968447</td>
<td>77</td>
<td>47</td>
<td>43</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>1.49320462</td>
<td>182</td>
<td>263</td>
<td>23.283984774</td>
<td>6000</td>
<td>78</td>
<td>46.648948086</td>
<td>72</td>
<td>46</td>
<td>64</td>
<td>31</td>
</tr>
<tr>
<td>5</td>
<td>3.04207093</td>
<td>194</td>
<td>1073</td>
<td>60.117985431</td>
<td>57802</td>
<td>357</td>
<td>80.793923402</td>
<td>17</td>
<td>37</td>
<td>140</td>
<td>139</td>
</tr>
<tr>
<td>6</td>
<td>5.0311551</td>
<td>64</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>7</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>9</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>10</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>11</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>12</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>13</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>14</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>15</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>16</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>17</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>18</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>19</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>20</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>21</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>22</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>23</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
<tr>
<td>24</td>
<td>5.9037082</td>
<td>62</td>
<td>322</td>
<td>55.675347554</td>
<td>1774</td>
<td>85</td>
<td>74.967380587</td>
<td>1</td>
<td>11</td>
<td>52</td>
<td>27</td>
</tr>
</tbody>
</table>

**Features: Upcoming**
COMMUNITY
New Digital Commonwealth task force to figure out a collection development policy

- How we might handle some content types (if we would accept them at all).
  - Dissertations?
  - Thesis?
  - Government Documents?
  - ETDs?
  - Tweets?
  - Websites?
COMMUNITY: NEWSPAPERS

IMLS Newspaper Grant Submitted January 15, 2016

- Partnered with the University of Utah
  - Run the Mountain West Digital Library (another DPLA service hub)
- Requested $250,000 to hire a developer
  - Would be built as a component to use with any Hydra based application
COMMUNITY: NEWSPAPERS

- Expands and will build upon a DPLA Knight Foundation Grant

- Article level content as the preferred format but will still support page level metadata
COMMUNITY: CONFERENCE

Hosting Hydra Connect 2016

- 4th time this would have been held
- October 3rd - October 6th
  - First day workshops
  - Last day unconference sessions (usually)
- Sheraton Boston hotel
  - $219/night
- Registration open late May / early June
  - 290 max slots
COMMUNITY: CONFERENCE

- Partners: WGBH, Tufts, DPLA, Northeastern
- Various types of topics
  - Technical code talks
  - Metadata discussions (RDF + LD)
  - Management sessions
  - DevOps discussions
  - Poster session
    - Each institution displays their current efforts and system architecture
USAGE
**USAGE: SESSIONS**

- March 2015: 590 sessions/day
- October 2015: 1,060 sessions/day
- March 2016: 1,235 sessions/day
Where do users come from?

2015
- search: 55.2%
- referral: 19.5%
- direct: 13.8%
- social: 11.4%

2016
- search: 54.3%
- referral: 16.9%
- direct: 16%
- social: 12.7%
Top referring sites, April 2015 - March 2016:

- dp.la  14,617
- bpl.org  4,219
- cwmars.org  2,455
- newbedford-ma.gov  827
- watertownlib.org  786
- rypn.org  602
- lawrencehistory.org  460
- brooklinelibrary.org  448
- cambridgema.gov  430
- mail.google.com  422
Top social referrers, April 2015 - March 2016:

- Facebook 31,774
- Reddit 4,692
- Twitter 1,826
- YouTube 1,272
- Tumblr 1,013
- Pinterest 628
Top 10 most-viewed items

- October 2015 - March 2016
A panoramic view from Bunker Hill Monument

Boston Public Library - Boston Pictorial Archive
http://ark.digitalcommonwealth.org/ark:/50959/00000312d
The Turkish Empire in Europe, Asia and Africa...
Buctouche, New Brunswick

Boston Public Library - Norman B. Leventhal Map Center Collection

http://ark.digitalcommonwealth.org/ark:/50959/wd376861d
Wachusett Reservoir, Lancaster Mills and Mill Pond...

Massachusetts Archives - Mass. Metropolitan Water Works Photograph Collection
http://ark.digitalcommonwealth.org/ark:/50959/bz60d598c
Wachusett Reservoir, Moulton & O’Mahoney’s locomotive "The Hobo"...
Massachusetts Archives - Mass. Metropolitan Water Works Photograph Collection
http://ark.digitalcommonwealth.org/ark:/50959/t148gc09k
#5 (861 views)

Wachusett Dam, from the east, Clinton, Mass...

Massachusetts Archives - Mass. Metropolitan Water Works Photograph Collection
http://ark.digitalcommonwealth.org/ark:/50959/1544bp68v
Row of naked boys stand on diving board at indoor pool

Boston Public Library - Leslie Jones Collection
http://ark.digitalcommonwealth.org/ark:/50959/sj139t64g
Row of naked boys stand on diving board at indoor pool

Boston Public Library - Leslie Jones Collection
http://ark.digitalcommonwealth.org/ark:/50959/sj139t62x
Middleton’s pioneer map of the world...
Gleason’s new standard map of the world

Boston Public Library - Norman B. Leventhal Map Center Collection
http://ark.digitalcommonwealth.org/ark:/50959/7h149v85z
Top Five Most-Popular Collections

- October 2015 - March 2016
- At least 50 items in collection
- Average view count for items
USAGE: COLLECTION TOP 5

#5 (14.4 average views per item)

Watertown Houses
Watertown Free Public Library
https://www.digitalcommonwealth.org/collections/commonwealth:rv043402x
Photographic Collection of the Jacob Edwards Library
Jacob Edwards Library
https://www.digitalcommonwealth.org/collections/commonwealth:fb494n22f
Watertown Businesses
Watertown Free Public Library
https://www.digitalcommonwealth.org/collections/commonwealth:dr26xz215
Brockton: The Early Years as a City in Photographs, 1881-1950
Brockton Public Library
https://www.digitalcommonwealth.org/collections/commonwealth:j67314798
Massachusetts Metropolitan Water Works Wachusett Reservoir Land Survey Plans Indexing Real Estate Photographs, 1896-1898
Massachusetts Department of Conservation and Recreation
https://www.digitalcommonwealth.org/collections/commonwealth:f4752n42x
USAGE: SITEWIDE ANALYSIS

MORE NUMBERS = MORE FUN

- October 2015 - March 2016
- Must have existed as of December 31st, 2015
- Doesn’t include DPLA traffic for harvested items.

http://favim.com/image/2855945/
## Usage: Baseline

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Records</td>
<td>228,743</td>
</tr>
<tr>
<td>Average Views</td>
<td>2.54</td>
</tr>
<tr>
<td>Percent with 1+ Views</td>
<td>56%</td>
</tr>
<tr>
<td>Average Time on Page</td>
<td>54.98 seconds</td>
</tr>
</tbody>
</table>
### USAGE: SUBJECTS

<table>
<thead>
<tr>
<th></th>
<th>No Subjects</th>
<th>Topic Subject Only</th>
<th>Geographic Subjects Only</th>
<th>Both Topic and Geographic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Records</td>
<td>7,928</td>
<td>79,629</td>
<td>6,859</td>
<td>134,327</td>
</tr>
<tr>
<td>Percentage of Records</td>
<td>3.5%</td>
<td>34.8%</td>
<td>3.0%</td>
<td>58.7%</td>
</tr>
<tr>
<td>Average Views</td>
<td>1.51</td>
<td>1.55</td>
<td>2.39</td>
<td>3.19</td>
</tr>
<tr>
<td>Percent with 1+ Views</td>
<td>45%</td>
<td>42%</td>
<td>51%</td>
<td>65%</td>
</tr>
</tbody>
</table>
## Usage: Abstract and Notes

<table>
<thead>
<tr>
<th></th>
<th>No Abstract or Notes</th>
<th>Abstract Only</th>
<th>Notes Only</th>
<th>Both Abstract and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Records</td>
<td>10,697</td>
<td>12,791</td>
<td>182,329</td>
<td>22,926</td>
</tr>
<tr>
<td>Percentage of Records</td>
<td>4.7%</td>
<td>5.6%</td>
<td>79.7%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Average Views</td>
<td>1.27</td>
<td>2.63</td>
<td>2.48</td>
<td>3.60</td>
</tr>
<tr>
<td>Percent with 1+ Views</td>
<td>34%</td>
<td>51%</td>
<td>56%</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>No Date(s)</td>
<td>With Date(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------</td>
<td>--------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Records</td>
<td>8,196</td>
<td>220,547</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Records</td>
<td>3.6%</td>
<td>96.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Views</td>
<td>2.26</td>
<td>2.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent with 1+ Views</td>
<td>50%</td>
<td>56%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Usage: Hosted vs Harvested

<table>
<thead>
<tr>
<th></th>
<th>Hosted Items</th>
<th>Harvested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Records</strong></td>
<td>172,476</td>
<td>56,267</td>
</tr>
<tr>
<td><strong>Percentage of Records</strong></td>
<td>75.4%</td>
<td>24.6%</td>
</tr>
<tr>
<td><strong>Average Views</strong></td>
<td>3.16</td>
<td>0.63</td>
</tr>
<tr>
<td><strong>Percent with 1+ Views</strong></td>
<td>66%</td>
<td>25%</td>
</tr>
</tbody>
</table>
USAGE: AVOID THE BLACK HOLE

http://www.blogging4jobs.com/hr/avoid-the-black-hole-when-applying-for-jobs-online
A look at description use in DPLA

- Credit and further good reading at: http://vphill.com/journal/post/5889/

- Note: DPLA dumps abstract and notes into the same description field.
THANKS!

Questions?

Steven Carl Anderson
@scande3
sanderson@bpl.org

Eben English
@ebenenglish
eenglish@bpl.org

goo.gl/ZTaZw4