



Visualizing Public Services Metrics for Special Collections & Archives



HELLO!

I am Elizabeth Kelly

I am here because I love data visualizations and proving the value of our services
in Special Collections & Archives

You can find me at @ElizabethJelly



OUTLINE

Overview of needs

Best practices and considerations

Visualize!

Other visualization tools

Questions?

A white double quote icon inside a dark blue square.

WHY DATA VISUALIZATION?



**WHAT KIND OF
DATA DO YOU
COLLECT?**



**WHO DO YOU
NEED TO SHARE
YOUR DATA
WITH?**

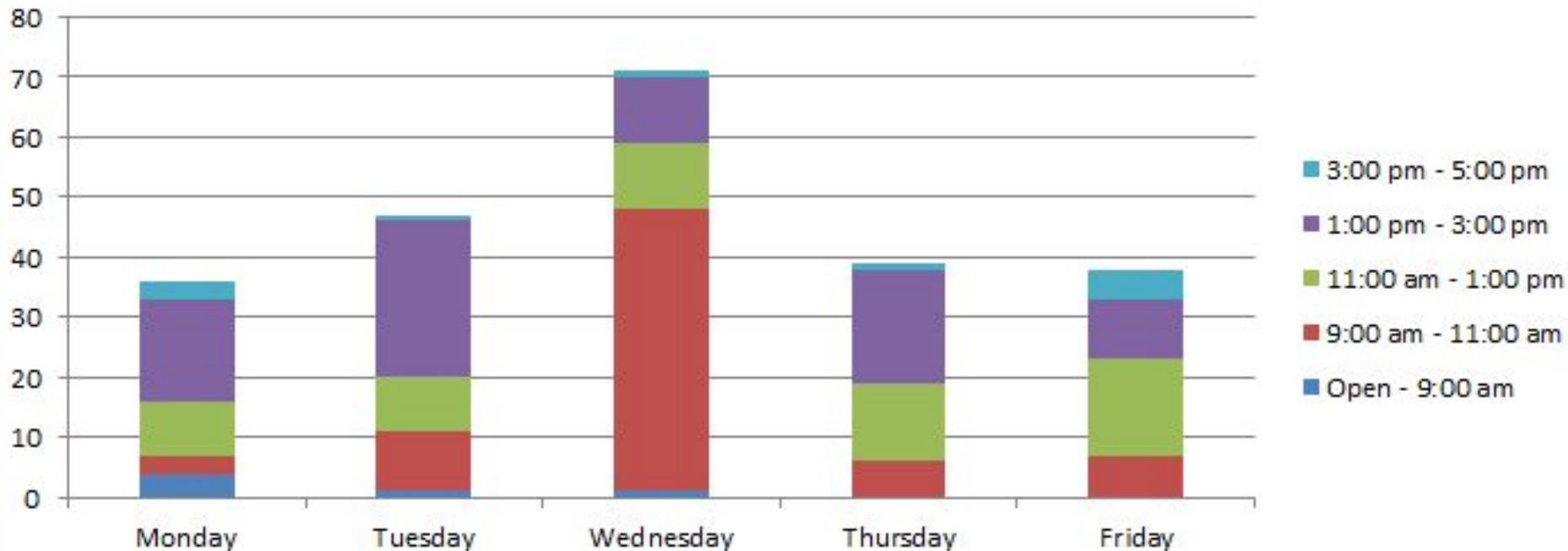
WHAT

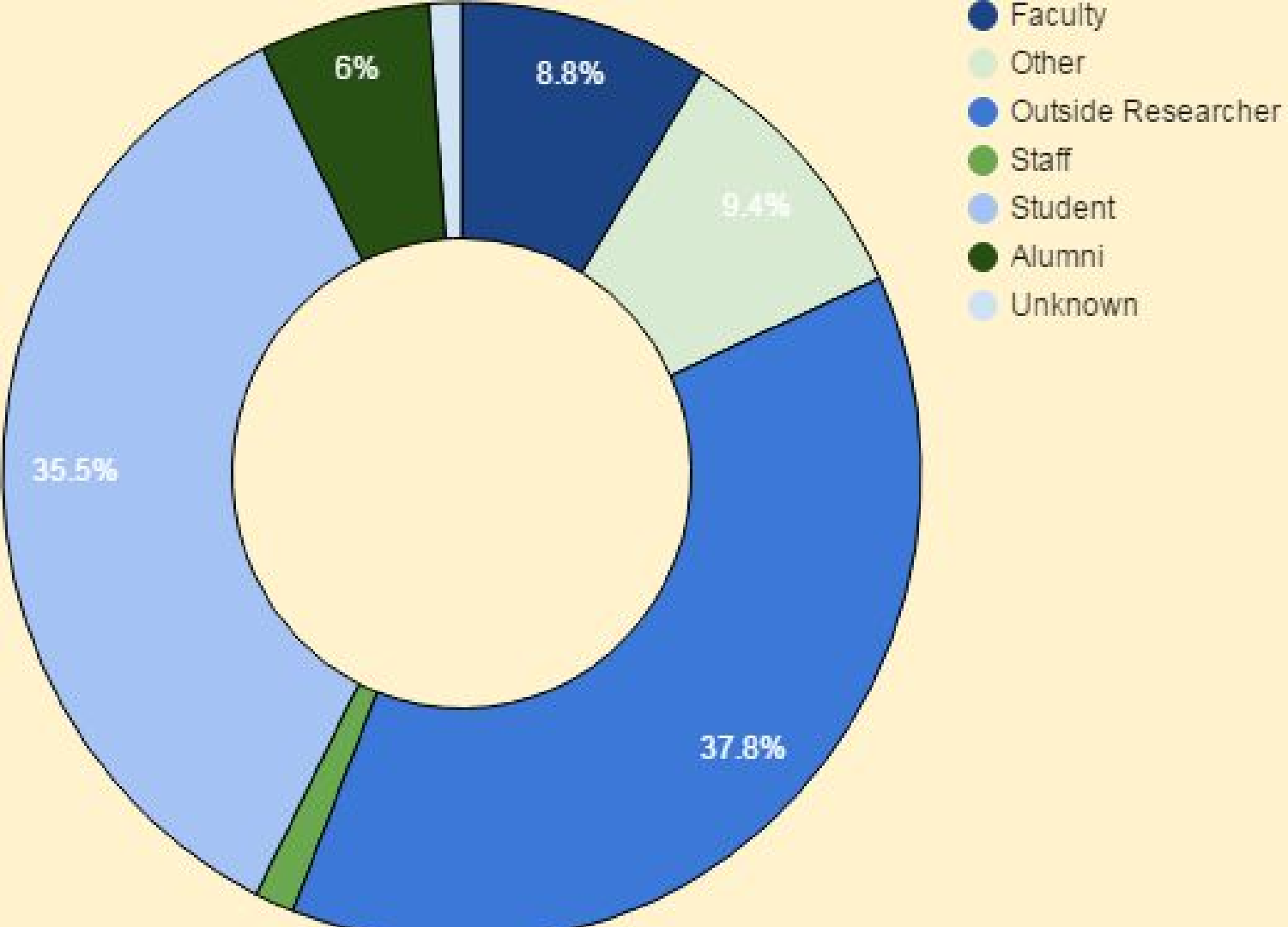
COULD

YOU

VISUALIZE?

Reading room visits by time and day of week

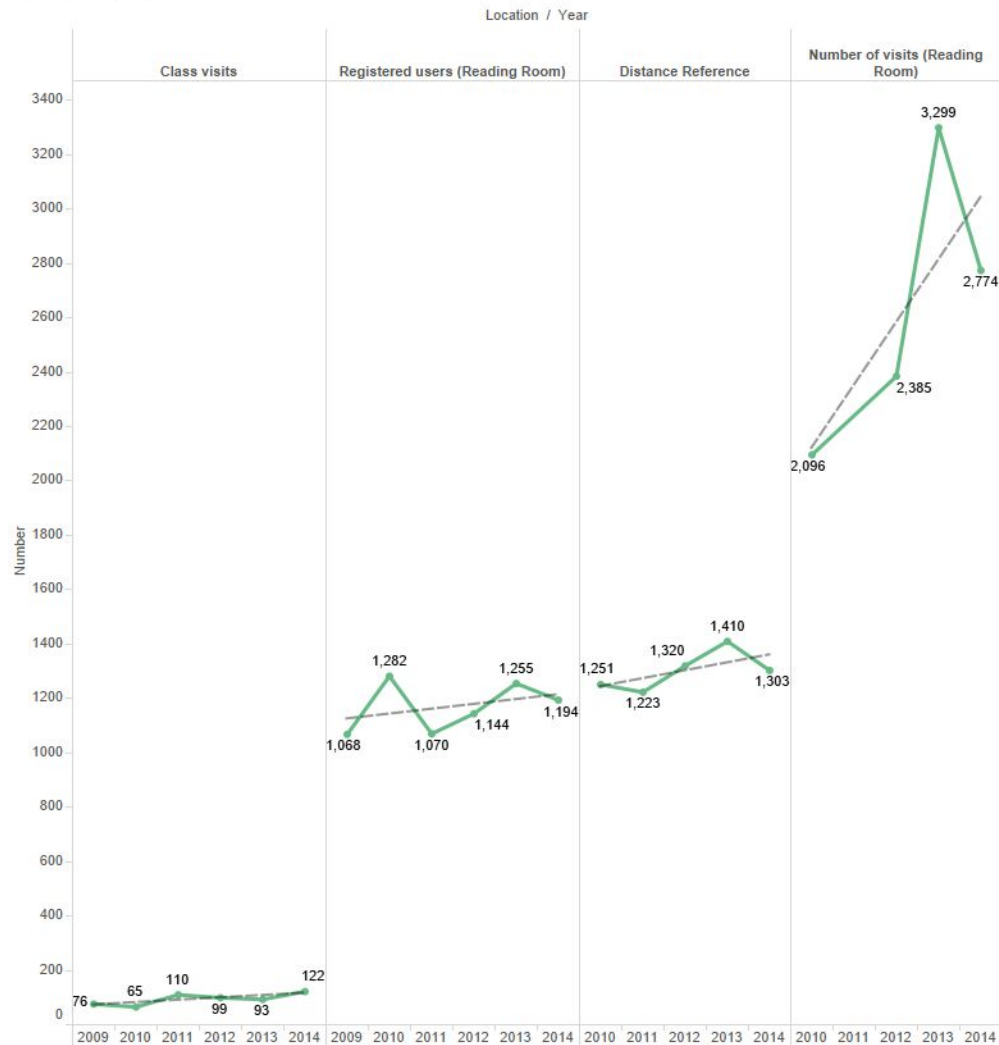




2016 Reading Room Users

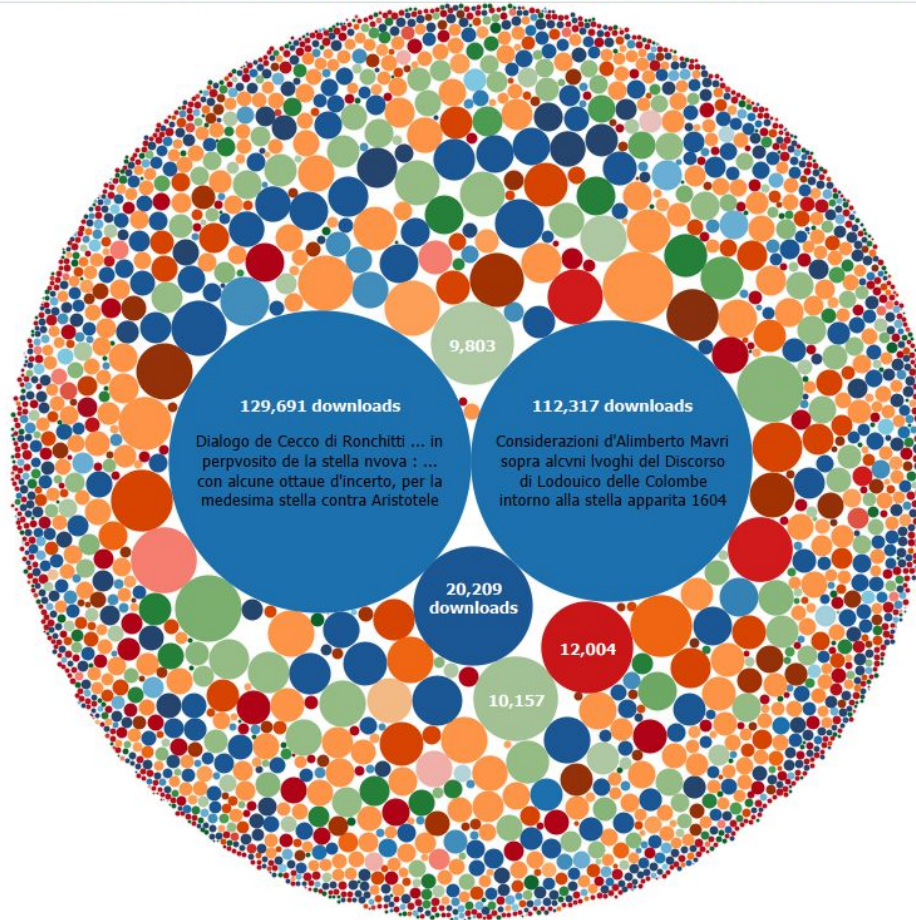
Tool: Google Drive
Kelly, Elizabeth Joan
(2017). "2016 Reading
Room Users."

Special Collections



Tool: Tableau
 O'Connell, Rob (2015).
 Smith College. "[Special Collections](#)."

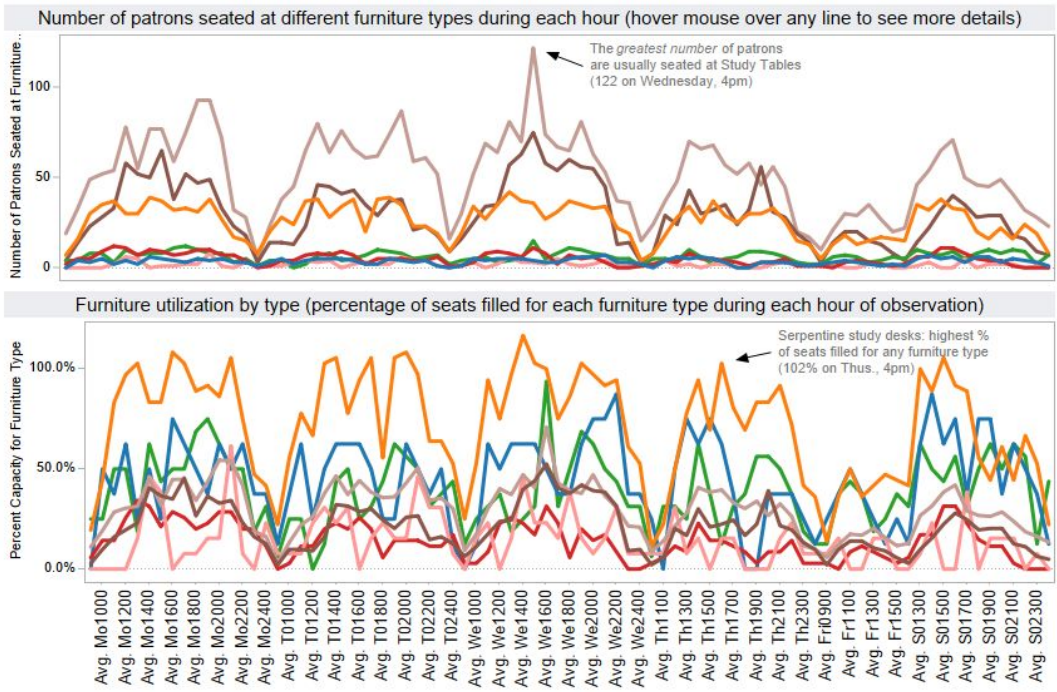
What was the top downloaded astronomy work?



Sum of User Downloads for digitized Astronomy works. Color shows details about Contributing Institution. Size shows Running Sum of User Downloads.

Tool: Tableau
Ford, JJ (2013). Harvard
University Herbarium.
“[Astronomy texts in the
Internet Archive.](#)”

Furniture utilization of Level 3 in UConn's Homer Babbidge Library, November 8 - November 14, 2012



Select furniture types to display on chart

- ☐ Null
- ☒ café tables
- ☐ counter stools in lobby
- ☒ lounge chairs in corne..
- ☐ lounge chairs in lobby
- ☐ random tables in micr..
- ☒ restaurant style booths
- ☒ serpentine study desks
- ☒ study desks
- ☒ tables

Click any furniture type to highlight it in the chart above, and display image at right

- ☒ study desks
- ☐ tables
- ☐ serpentine study desks
- ☐ lounge chairs in lobby
- ☐ lounge chairs in corner..
- ☐ café tables
- ☐ restaurant style booths



Furniture Type

- ☒ café tables
- ☐ lounge chairs in corners of f..
- ☐ lounge chairs in lobby
- ☐ restaurant style booths
- ☐ serpentine study desks
- ☐ study desks
- ☐ tables

Tool: Tableau
Batt, Steve (2013).
University of
Connecticut Library.
"Furniture utilization of Level 3 in
UConn's Homer Babbidge
Library, November 8 - November
14, 2012"



Tool: Tableau
Santa Ana, Katie (2017).
“[Manuscript Collection
Sizes - Bubbles.](#)”

Collection

Archbishop Martin J. O'Connor Collection	Mary Elizabeth Walsh Papers	USCCB Episco
Association of Catholic Colleges and Universities Recor...	Michael Kenny Papers	USCCB Generi
Bernard Mann Peebles	Msgr. John J. O'Grady Papers	USCCB Office
Bruce M. Mohler Papers	National Catholic Community Service Records	USCCB Office
Cardinal Aloisius Muench Papers	National Council of Catholic Men Records	USCCB Secret
Catherine Ann Cline Papers	National Council of the United States of the Society of...	USCCB Youth
Catholic Charities of the Archdiocese of Washington, DC	Papers of John Brophy	Vatican Coun
Catholic Charities USA	Papers of Richard L. G. Deverall	William K. Lee
Catholic News Service Records	Papers of Terence Vincent Powderly	
Catholic Organizations Network Records	Paul Hanly Furfey Papers	
Catholic University of America Office of Public Affairs P...	Personal Papers of Clyde Lorrain Cowan	
Clarence C. Walton Papers	Peter Guilday Papers	
Co-Workers of Mother Teresa in America Records	Philip Murray Papers	
Daughters of Isabella Collection	Records of National Catholic Educational Association	
Diocesan Development Program for Natural Family Pla...	Records of the Catholic Daughters of the Americas	
Dorothy Abts Mohler Papers	Records of The Catholic Interracial Council of New York	
Eileen Egan's Mother Teresa Collection	Records of the Christ Child Society	
Family and Child Services of Washington, D.C	Records of the Communications Department/Office of ...	
Father Luis M. Dolan's Papers	Records of the Congress of Industrial Organizations	
Ferdinand Aloys Hermens Papers	Records of the International Federation of Catholic Alu...	
Francis J. Haas Papers	Records of the National Catholic War Council	
Fred J. Maroon Photograph Collection	Records of the National Council of Catholic Women	
Frederick R. McManus Papers	Religious Communities and Missions Survey Collection	
George Gilmory Higgins Papers	Rev. Gilbert Vincent Ferrer Hartke Collection	
Harry Cyril Read Papers	Reverend Eli Washington John Lindesmith Papers	
Haynes-Lofton Family Papers	Richard Joseph Purcell Papers	
James Parker Papers	Robert Francis McNamara Papers	
John A. Ryan Papers	Robert Theodore Meyer Papers	
John C. Cort Papers	Roy J. Deferrari Papers	
John Mitchell Papers	The Catholic Theological Society of America Records	
John Montgomery Cooper And Regina Flannery Herzfel...	The Papers of John Tracy Ellis	
John Montgomery Cooper Papers	Thomas J. Shahan Papers	
John W. Hayes Papers	Treasure Chest of Fun & Fact Comic Book Collection	
Joseph D. Keenan Papers	USCCB Catholic Campaign for Human Development Rec...	
Jubilee USA Network Records	USCCB Department of Social Action	
Lawrence Francis Flick Papers	USCCB Education Department Records	

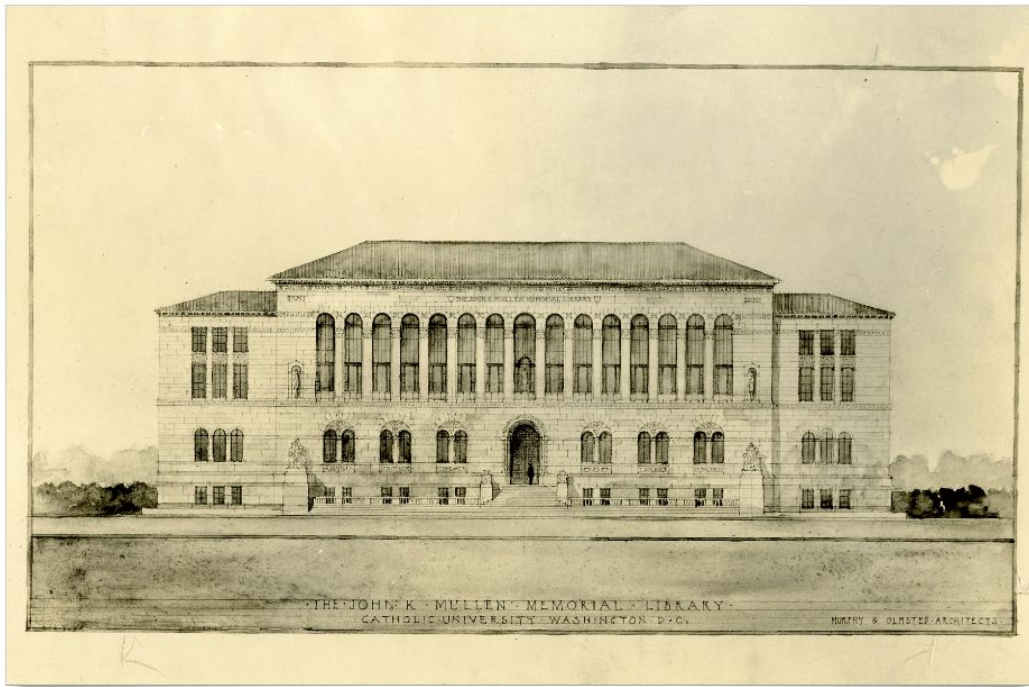
Tool: TimeMapper
Santa Ana, Katie. "[CUA](#)
[Early Buildings](#)
[Timeline.](#)"

April 25, 1925

John K. Mullen of Denver Memorial Library

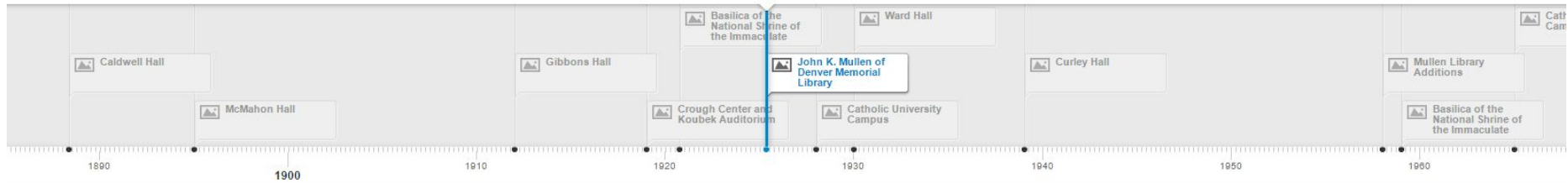
The library was built as a main campus facility for a growing university between 1925 and 1928, not only consolidating various collections but becoming the archive for several distinguished collections of books and papers. It houses the centralized public, technical, and administrative services of the library as well as the general stacks collections, Rare Books and Special Collections and the Semitics/ICOR Library, The Oliveira Lima Library, Catholic Historical Review, Institute for Christian Oriental Research, Department of Semitic/Egyptian Languages and Literatures.

Source: The American Catholic History Research Center and University Archives



Courtesy of The American Catholic History Research Center and University Archives

Architectural Drawing of Mullen Library

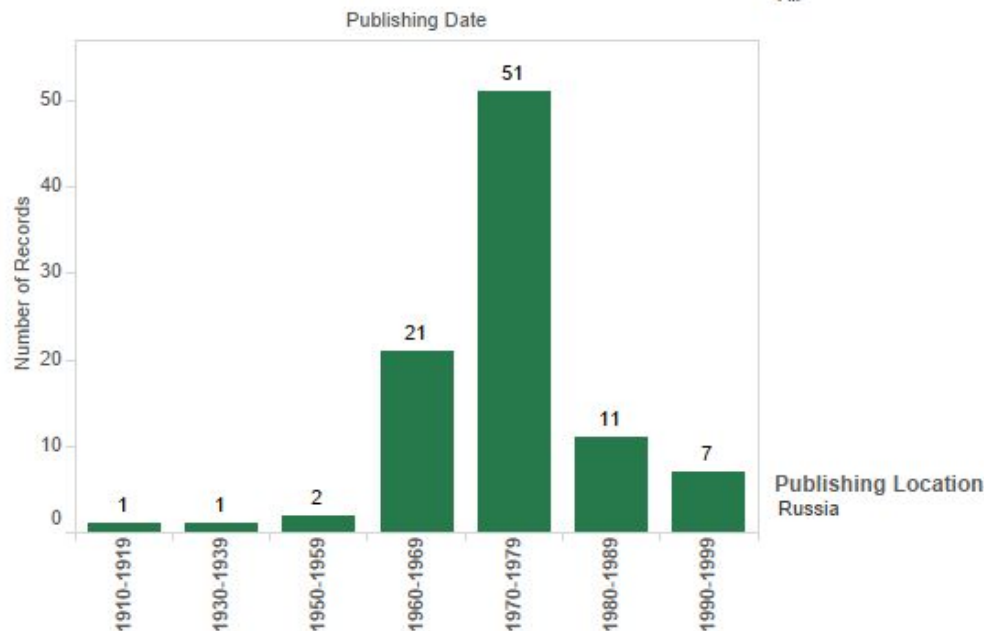


The Latin American History Collection at UC Riverside

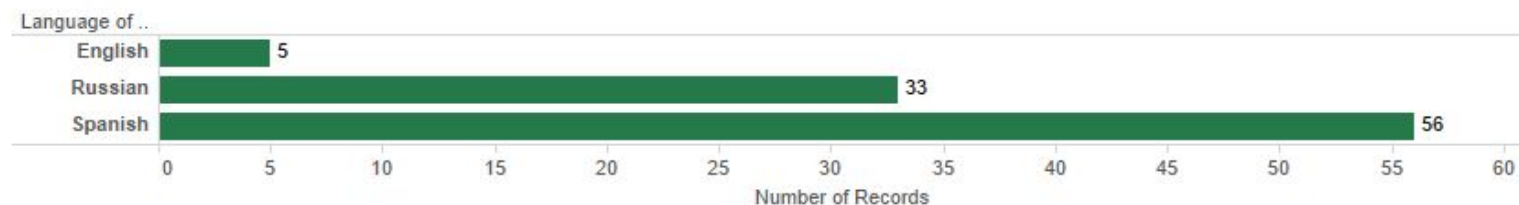
National Histories



Date of Publication



Language of Publication

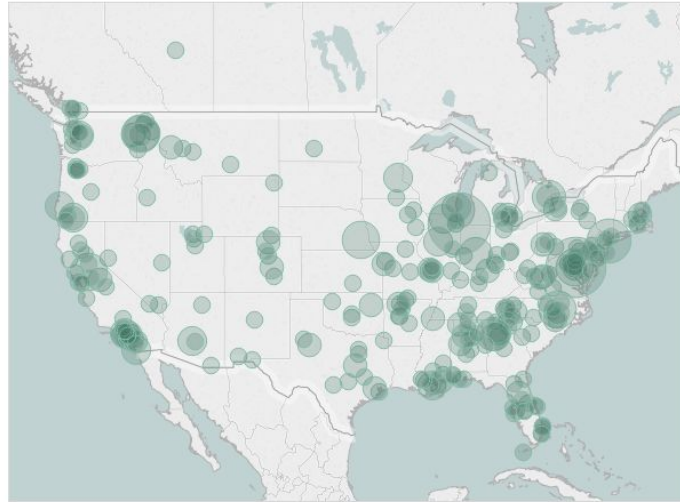


Tool: Tableau
SCarton. "[The Latin American History Collection at UC Riverside.](#)"

Mapping Alternative and Extremist Political Literature

The Collection of the Southern Poverty Law Center Intelligence Project : extremist and alternative serial publications from the mid 20th to early 21st century

Serial publications mapped here are part of a larger collection of materials (fliers, clippings, organizational literature, pamphlets, etc.) from the Southern Poverty Law Center Intelligence Project Collection, 1940s-2010, David M. Rubenstein Rare Book & Manuscript Library. A collection guide can be found here: <http://library.duke.edu/rubenstein/findingaids/splc/>



Sort by Type of Literature and State

- ☒ Alternative publications
- ☒ Anti-Catholic literature
- ☒ Anti-communist literature
- ☒ Anti-homosexual literature
- ☒ Anti-immigrant literature
- ☒ Anti-Semitic literature
- ☒ Doomsday literature
- ☒ Lampoons
- ☒ Literature of prejudice
- ☒ Protest literature
- ☒ Protest literature--Taxation
- ☒ Survivalist literature
- ☒ White supremacist literature
- ☒ Xenophobic literature

All

Publication Titles and Type of Literature

Click on title for link to catalog record

Title	City	Genre	Count
9*1*1 (Huntington Beach, Calif.)	Huntington Beach	Anti-immigrant literature	1
50 States Constitutionalist Newspaper.	Del City	Alternative publications	1
A.N.P. Newsletter.	Chicago	White supremacist literature	1
Abiding Truth (Anaheim, Calif.)	Anaheim	Anti-homosexual literature	2
Aid & Abet Newsletter.	Phoenix	Alternative publications	1
		Xenophobic literature	1
Alabama Defender (Semmes, Ala.)	Semmes	Alternative publications	1
Alabamian (Jasper, Ala.)	Jasper	White supremacist literature	1
		Alternative publications	1

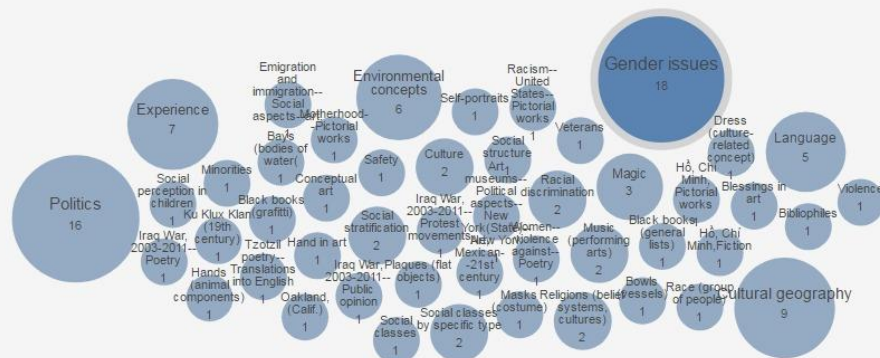
Distribution of Literature Type

Genre	%	No.
White supremacist literature	47.8%	216
Alternative publications	31.0%	176
Anti-Semitic literature	10.5%	48
Anti-homosexual literature	3.0%	11
Survivalist literature	1.4%	9
Literature of prejudice	1.3%	8
Xenophobic literature	1.3%	6
Anti-Catholic literature	0.9%	3
Anti-immigrant literature	0.9%	6
Doomsday literature	0.5%	3

Tool: Tableau
Reno, Lauren (2015).
[“Mapping Alternative and Extremist Political Literature.”](#)

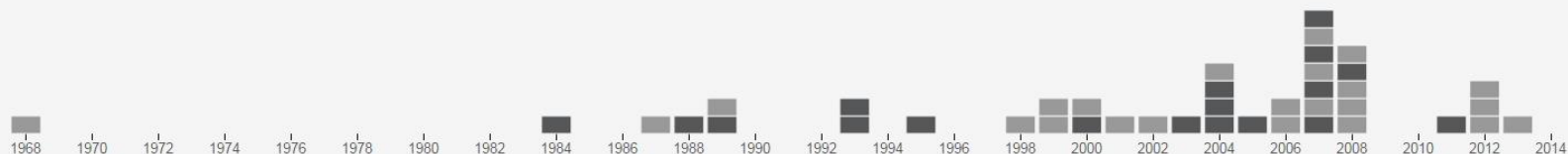
Piloting Linked Open Data for Artists' Books has been made possible in part by the [National Endowment for the Humanities](#).

Subjects Materials Techniques Place of Publication

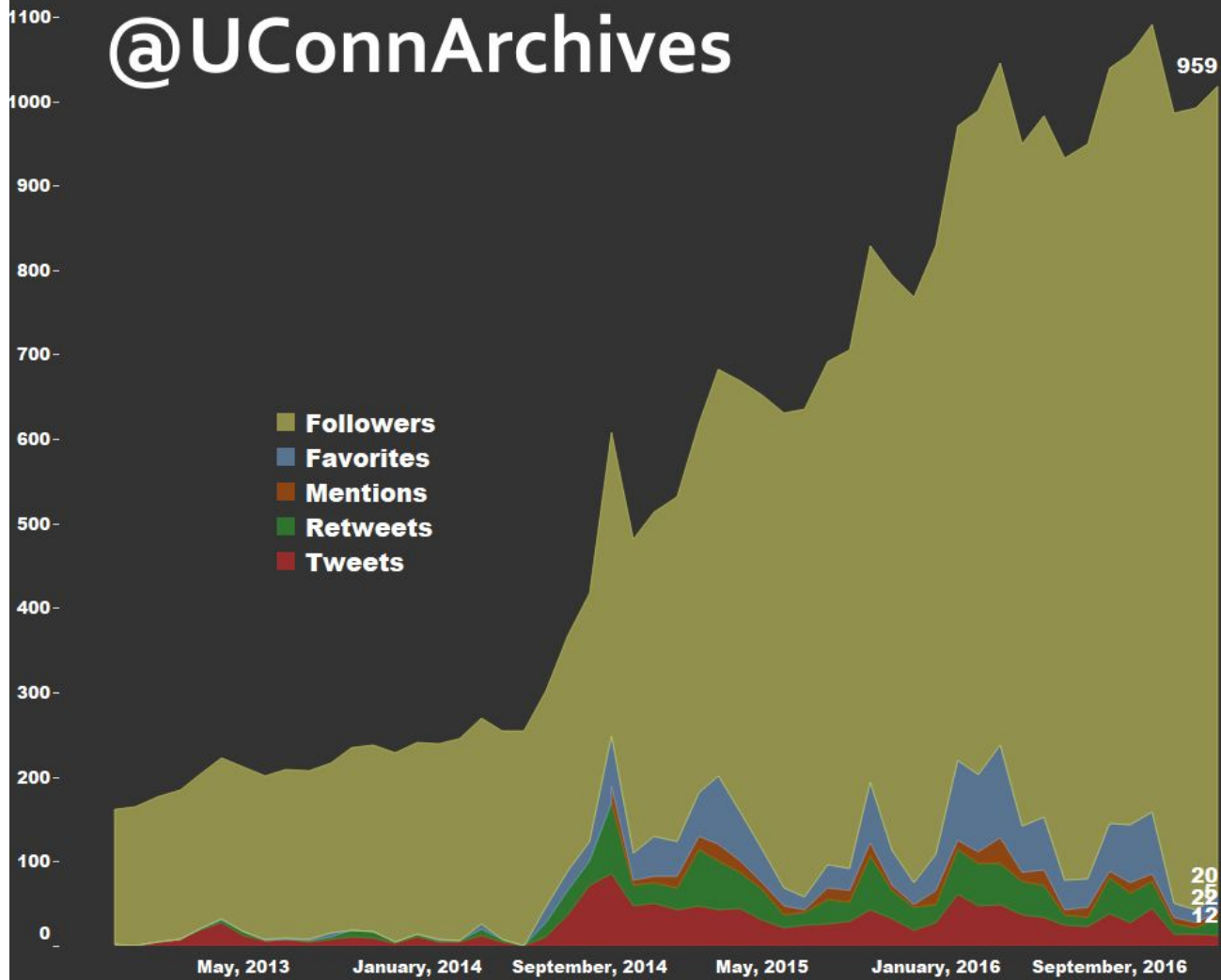


Tool: PLODAB
UCI Libraries. "[Artists' Books Discovery Tool](#)."

click on chart background to clear selection



@UConnArchives

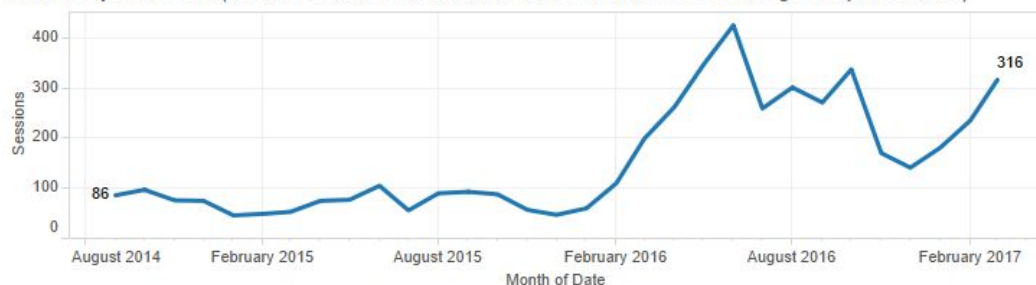


Tool: Tableau
Batt, Steve. University of
Connecticut Library.
"@UConnArchives."

Connecticut State Library CTDA Content Use Metrics

Sept. 2014 to date:

Sessions per month (see Terms and Definitions tab above for more information on Google Analytic measures)



4,783

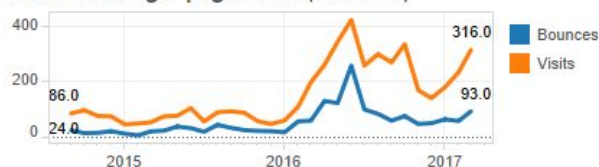
Sessions

66,811

Pageviews

9/4/2014 to 3/31/2017

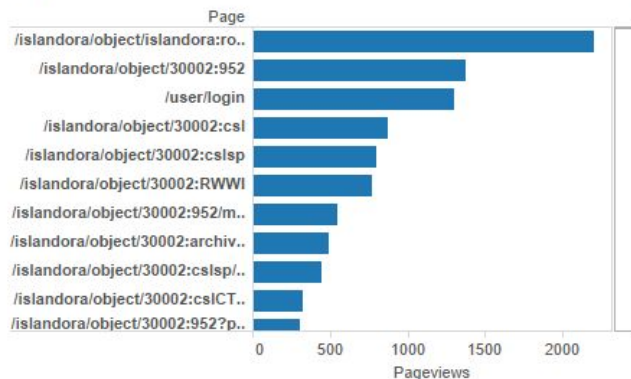
Visits and single-page visits (Bounces)



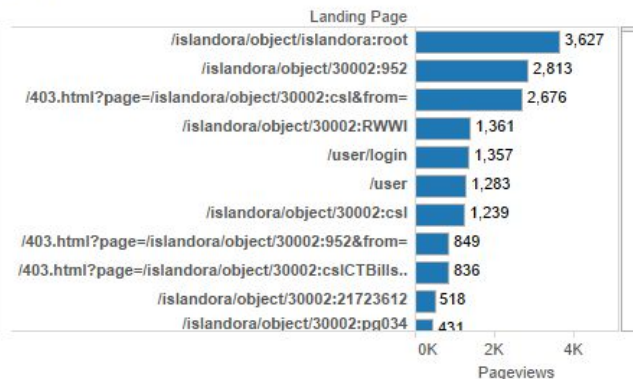
Average Visit duration



Pages with highest number pageviews (click bar to see page in browser below)



Most popular landing pages in CTDA (click bar to see page in browser below)



Tool: Tableau
Batt, Steve (2017).
University of
Connecticut Library.
"Connecticut State Library
CTDA Content Use Metrics."

Library Data Dashboard

Library Home » About the Library » Library Data Dashboard

Fiscal Year Services Snapshot

	2016	2015
Website Visitors	1,836,267	1,445,130
Walk-in Visitors	1,054,689	1,076,571
Study Rooms Usage	26,569	26,466
Article Downloads	984,993	932,737
eBook Downloads	811,037	547,867
Streaming Media Views	357,911	470,072
PDXScholar Downloads	458,031	457,225
Materials Circulated	225,244	242,575
Borrowed from Other Libraries	47,959	47,749
Reference Questions	25,527	18,715
Instruction Session Attendees	9,870	10,564

Fiscal years:
July 1, 2015 – June 30, 2016
July 1, 2014 – June 30, 2015

The dashboard below provides an overview. Generate detailed charts:
Library Dashboard – Detailed View

University Library Collections

Books, Journals, and More	1,430,929
eBooks	1,011,676
eJournals	85,772
Streaming Media	134,774
Microforms	2,592,288
Government Documents	406,893
Audiovisual Materials	134,715
Special Collections	23,410
Repository (PDXScholar)	11,914
Total	5,832,371

Snapshot as of June 30, 2016

Faculty & Staff (FTE)

- 30 Librarians/ Professionals
- 31 Classified Staff
- 14 Student Workers

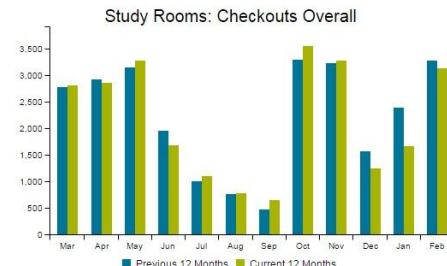
Portland State University Libraries (2017). “[Library Dashboard.](#)”

Visits & Study Room Usage

Nearly 3 million people visit the Library and its website annually; students heavily use the online study room reservation tool.



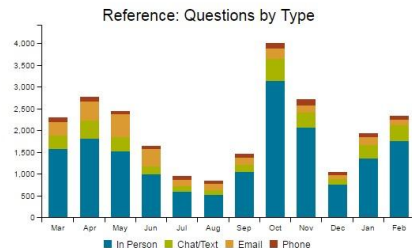
Detailed View of Walk-in and Website Visits



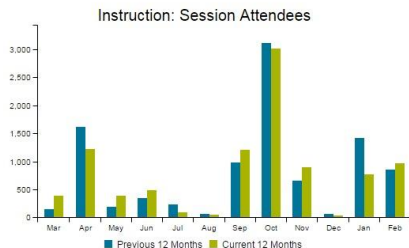
Detailed View of Study Room Usage

Reference & Instruction

Help is available via chat, email, phone and in person, and many students attend librarian-led classes to improve their research methodologies.



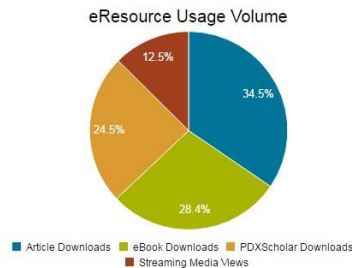
Detailed View of Reference Data



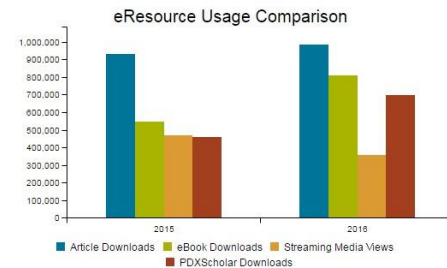
Detailed View of Instruction Data

Use of Electronic Resources: eBooks, Streaming Media, Articles & PDXScholar

Users access eBooks, streaming media and other online content 2.4 million times in an average year.



About one million articles were downloaded from July 1, 2015 to June 30, 2016.



Online content is increasingly popular at PSU Library.



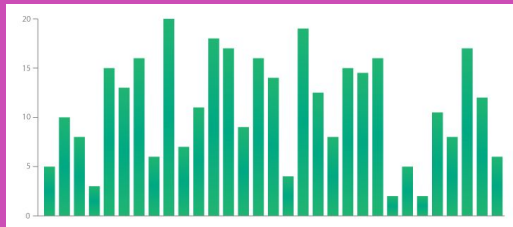
BEST PRACTICES



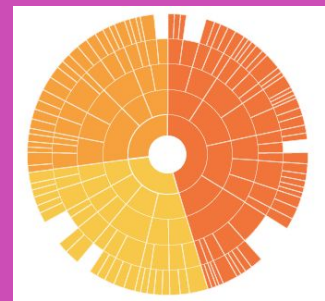
WHAT ARE YOU TRYING TO VISUALIZE?

23%

A SINGLE NUMBER

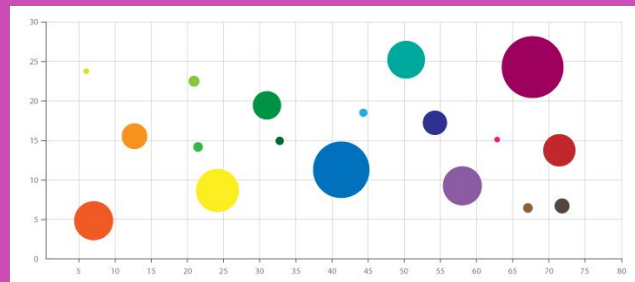
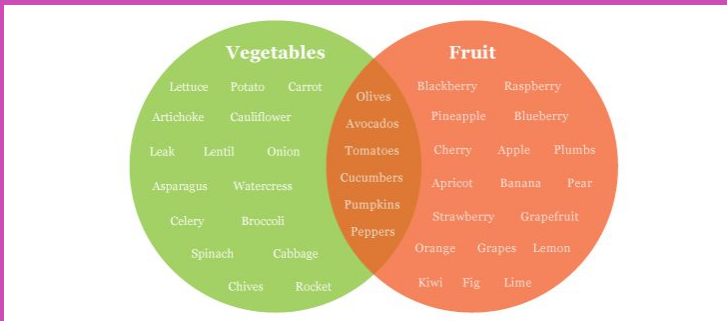


COMPARISONS



PARTS OF A WHOLE

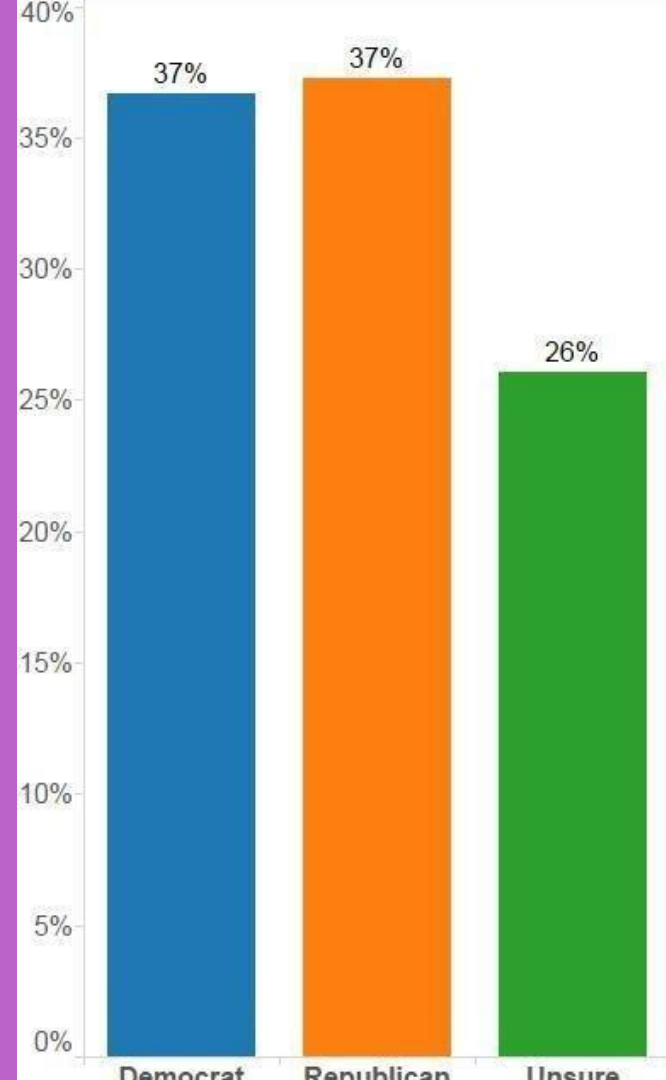
CORRELATIONS



CHANGES OVER TIME

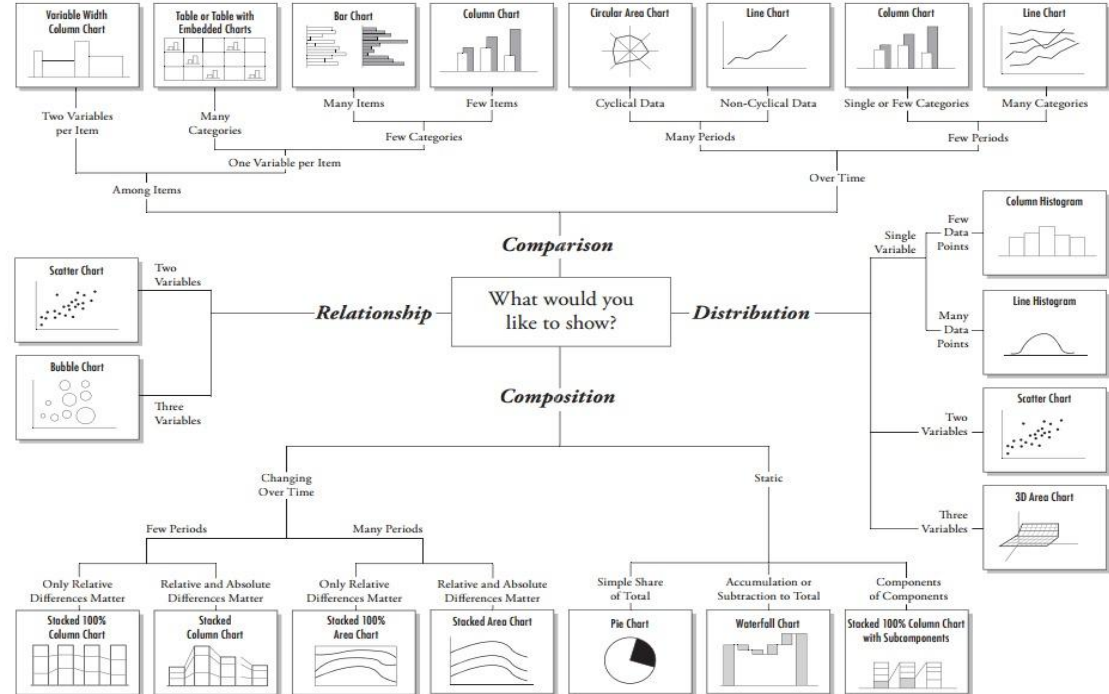


DON'T DISTORT YOUR DATA



SELECT THE RIGHT CHART

Chart Suggestions—A Thought-Starter



What do you want to show?



Comparisons



Proportions



Relationships



Hierarchy



Concepts



Location



Part-to-a-whole



Distribution



How things work



Processes & methods



Movement or flow



Patterns



Range



Data over time



Analysing text



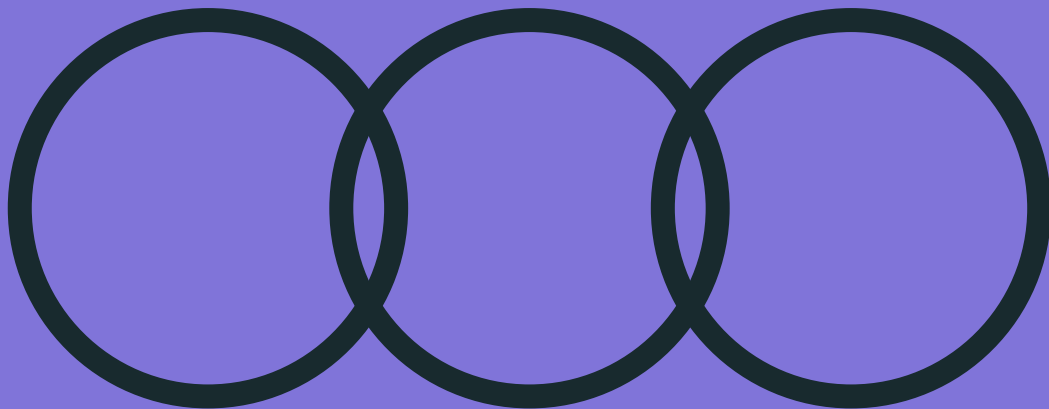
Reference tool

THE DATA VISUALIZATION CATALOG



ACTIVITY GUIDE

<https://tinyurl.com/ssaviz17>





INTERVIEW YOUR DATA

2017_SSA_Visualizing-Public-Service-Metrics_data									
File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive									
fx									
	A	B	C	D	E	F	G	H	I
1	Timestamp	Month	Type of Interaction	Day of the Week	Library User	Contact Method	Time Frame	Time Spent	Collection Type
2	8/3/2015 12:32:5	August	Research Help	Monday	Outside Research	Office Phone	11:00 am - 1:00 pm	Under 5 min	Archival/Manuscript
3	8/5/2015 9:45:38	August	Research Help	Wednesday	Outside Research	Email	Open - 9:00 am - 5:00 pm	30 - 1 hour	Rare Books
4	8/7/2015 9:58:18	August	Research Help	Friday	Outside Research	Email	9:00 am - 11:00 am	30 - 1 hour	Archival/Manuscript
5	8/7/2015 16:26:1	August	Research Help	Friday	Outside Research	Special Collection	1:00 pm - 3:00 pm	Over 1 hour	Archival/Manuscript
6	8/11/2015 8:15:5	August	Collection Development	Tuesday	Faculty	Special Collection	1:00 pm - 3:00 pm	Over 1 hour	University Archives



Good questions to ask when researching data:

Who created it?

Who is responsible for maintaining it?

What point in time or time-range does it apply to?

How was the data collected?


How was the data processed after being collected?

How was each field collected or calculated?



CLEAN YOUR DATA



Count: 278 

2017_SSA_Visualizing-Public-Service-Metrics_data_analyzed

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

Print Undo Redo Paste \$ % .0 .00 123 Arial 10 B I A

fx

Collection Type

	A	B	C	D	E	F	G	H	I	J
1	Timestamp	Month	Type of Interaction	Day of the Week	Library User	Contact Method	Time Frame	Time Spent	Collection Type	
2	8/3/2015 12:32:5	August	Research Help	Monday	Outside Research	Office Phone	11:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
3	8/5/2015 9:45:38	August	Research Help	Wednesday	Outside Research	Email	Open - 9:00 am - 11:00 am	Under 5 min	Archival/Manuscript	
4	8/7/2015 9:58:18	August	Research Help	Friday	Outside Research	Email	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
5	8/7/2015 16:26:1	August	Research Help	Friday	Outside Research	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Archival/Manuscript	
6	8/11/2015 8:15:5	August	Collection Development	Tuesday	Faculty	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Archival/Manuscript	
7	8/11/2015 12:13:	August	Research Help	Tuesday	Undergraduate	Special Collection	11:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
8	8/12/2015 9:00:0	August	Other	Wednesday	Other	Email	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
9	8/12/2015 16:28:	August	Research Help	Wednesday	Alumni	Office Phone	3:00 pm - 5:00 pm	5 - 15 min	Archival/Manuscript	
10	8/13/2015 12:33:	August	Research Help	Thursday	Outside Research	Email	11:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
11	8/17/2015 13:40:	August	Outreach	Monday	Undergraduate	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Archival/Manuscript	
12	8/18/2015 9:27:5	August	Collection Development	Tuesday	Staff	Special Collection	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
13	8/18/2015 10:08:	August	Event Planning	Tuesday	Other	Special Collection	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
14	8/18/2015 13:57:	August	Research Help	Tuesday	Undergraduate	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Archival/Manuscript	
15	8/24/2015 9:33:3	August	Other	Monday	Other	Email	Open - 9:00 am - 11:00 am	Under 5 min	Archival/Manuscript	
16	8/24/2015 10:29:	August	Research Help	Monday	Outside Research	Email	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
17	8/25/2015 10:35:	August	Other	Tuesday	Outside Research	Email	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
18	8/25/2015 16:09:	August	Collection Development	Tuesday	Outside Research	Office Phone	1:00 pm - 3:00 pm	5 - 15 min	Archival/Manuscript	
19	8/25/2015 16:10:	August	Collection Development	Tuesday	Other	Email	1:00 pm - 3:00 pm	5 - 15 min	Archival/Manuscript	
20	8/26/2015 10:54:	August	Research Help	Wednesday	Undergraduate	Special Collection	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
21	8/27/2015 10:17:	August	Collection Development	Thursday	Outside Research	Special Collection	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript	
22	8/28/2015 8:50:5	August	Other	Friday	Other	Email	Open - 9:00 am - 11:00 am	Under 5 min	Archival/Manuscript	
23	8/31/2015 9:11:2	August	Research Help	Monday	Outside Research	Email	Open - 9:00 am - 11:00 am	5 - 15 min	Digital Library	
24	9/2/2015 8:59:43	September	Other	Wednesday	Undergraduate	Special Collection	Open - 9:00 am - 11:00 am	5 - 15 min	Digital Library	
25	9/2/2015 10:18:5	September	Research Help	Wednesday	Undergraduate	Email	9:00 am - 11:00 am	5 - 15 min	Digital Library	
26	9/2/2015 10:21:1	September	Research Help	Wednesday	Undergraduate	Special Collection	9:00 am - 11:00 am	5 - 15 min	Rare Books	
27	9/3/2015 15:04:2	September	Other	Thursday	Faculty	Email	1:00 pm - 3:00 pm	5 - 15 min	Rare Books	
28	9/4/2015 16:19:4	September	Other	Friday	Outside Research	Special Collection	3:00 pm - 5:00 pm	15 - 30 min	Archival/Manuscript	
29	9/4/2015 16:20:3	September	Other	Friday	Outside Research	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Digital Library	
30	9/8/2015 10:53:3	September	Collection Development	Tuesday	Staff	Special Collection	9:00 am - 11:00 am	5 - 15 min	University Archives	
31	9/15/2015 9:50:4	September	Collection Development	Tuesday	Other	Special Collection	1:00 pm - 3:00 pm	Over 1 hour	University Archives	
32	9/16/2015 12:24:	September	Curricular Consultation	Wednesday	Faculty	Special Collection	3:00 pm - 5:00 pm	Over 1 hour	University Archives	

Sort A → Z

Sort Z → A

Filter by condition...

Filter by values...

Select all - Clear

Archival/Manuscript

✓ Digital Library

Microfilm

Rare Books

University Archives

OK

Cancel

2017_SSA_Visualizing-Public-Service-Metrics_data_analyzed

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

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Sort sheet by column A, A → Z

Sort sheet by column A, Z → A

Sort range by column A, A → Z

Sort range by column A, Z → A

Sort range...

Named ranges...

Protected sheets and ranges...

Split text to columns...

Filter

Filter views...

Pivot table...

Data validation...

	A	B				F	G	H	I	
1	Timestamp	Month	Type			Researcher	Contact Method	Time Frame	Time Spent	Collection Type
2	8/3/2015 12:32:5	August	Research			Researcher	Office Phone	11:00 am - 1:00 pm	Under 5 min	Archival/Manuscript
3	8/5/2015 9:45:38	August	Research			Researcher	Email	Open - 9:00 am - 11:00 am	30 - 1 hour	Rare Books
4	8/7/2015 9:58:18	August	Research			Researcher	Email	9:00 am - 11:00 am	30 - 1 hour	Archival/Manuscript
5	8/7/2015 16:26:1	August	Research			Researcher	Special Collection	1:00 pm - 3:00 pm	Over 1 hour	Archival/Manuscript
6	8/11/2015 8:15:5	August	Collection			Researcher	Special Collection	1:00 pm - 3:00 pm	Over 1 hour	University Archives
7	8/11/2015 12:13:	August	Research			Graduate	Special Collection	11:00 am - 1:00 pm	15 - 30 min	Rare Books
8	8/12/2015 9:00:0	August	Other			Researcher	Email	9:00 am - 11:00 am	5 - 15 min	University Archives
9	8/12/2015 16:28:	August	Research			Researcher	Office Phone	3:00 pm - 5:00 pm	15 - 30 min	University Archives
10	8/13/2015 12:33:	August	Research			Researcher	Email	11:00 am - 1:00 pm	15 - 30 min	Archival/Manuscript
11	8/17/2015 13:40:	August	Outreach			Graduate	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Archival/Manuscript
12	8/18/2015 9:27:5	August	Collection			Researcher	Special Collection	9:00 am - 11:00 am	15 - 30 min	Archival/Manuscript
13	8/18/2015 10:08:	August	Everett			Researcher	Special Collection	9:00 am - 11:00 am	15 - 30 min	Rare Books
14	8/18/2015 13:57:	August	Research			Graduate	Special Collection	1:00 pm - 3:00 pm	15 - 30 min	Archival/Manuscript
15	8/24/2015 9:33:3	August	Other	Monday	Other	Researcher	Email	Open - 9:00 am - 11:00 am	5 - 15 min	Rare Books
16	8/24/2015 10:29:	August	Research Help	Monday	Outside Research	Researcher	Email	9:00 am - 11:00 am	15 - 30 min	University Archives
17	8/25/2015 10:35:	August	Other	Tuesday	Outside Research	Researcher	Email	9:00 am - 11:00 am	5 - 15 min	Rare Books
18	8/25/2015 16:09:	August	Collection Development	Tuesday	Outside Research	Researcher	Office Phone	1:00 pm - 3:00 pm	Under 5 min	Rare Books
19	8/25/2015 16:10:	August	Collection Development	Tuesday	Other	Researcher	Email	1:00 pm - 3:00 pm	5 - 15 min	Rare Books
20	8/26/2015 10:54:	August	Research Help	Wednesday	Undergraduate	Researcher	Special Collection	9:00 am - 11:00 am	15 - 30 min	Archival/Manuscript
21	8/27/2015 10:17:	August	Collection Development	Thursday	Outside Research	Researcher	Special Collection	9:00 am - 11:00 am	5 - 15 min	Archival/Manuscript
22	8/28/2015 8:50:5	August	Other	Friday	Other	Researcher	Email	Open - 9:00 am - 11:00 am	Under 5 min	Archival/Manuscript
23	8/31/2015 9:11:2	August	Research Help	Monday	Outside Research	Researcher	Email	Open - 9:00 am - 11:00 am	5 - 15 min	Digital Library
24	9/2/2015 8:59:43	September	Other	Wednesday	Undergraduate	Researcher	Special Collection	Open - 9:00 am - 11:00 am	5 - 15 min	Digital Library
25	9/2/2015 10:18:5	September	Research Help	Wednesday	Undergraduate	Researcher	Email	9:00 am - 11:00 am	5 - 15 min	Digital Library
26	9/2/2015 10:21:1	September	Research Help	Wednesday	Undergraduate	Researcher	Special Collection	9:00 am - 11:00 am	5 - 15 min	Rare Books
27	9/3/2015 15:04:2	September	Other	Thursday	Faculty	Researcher	Email	1:00 pm - 3:00 pm	5 - 15 min	Rare Books
28	9/4/2015 16:19:4	September	Other	Friday	Outside Research	Researcher	Special Collection	3:00 pm - 5:00 pm	15 - 30 min	Archival/Manuscript
29	9/4/2015 16:20:3	September	Other	Friday	Outside Research	Researcher	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Digital Library
30	9/8/2015 10:53:3	September	Collection Development	Tuesday	Staff	Researcher	Special Collection	9:00 am - 11:00 am	5 - 15 min	University Archives
31	9/15/2015 9:50:4	September	Collection Development	Tuesday	Other	Researcher	Special Collection	1:00 pm - 3:00 pm	Over 1 hour	University Archives
32	9/16/2015 12:24:	September	Curricular Consultation	Wednesday	Faculty	Researcher	Special Collection	3:00 pm - 5:00 pm	Over 1 hour	University Archives
33	9/17/2015 15:30:	September	Research Help	Thursday	Outside Research	Researcher	Special Collection	1:00 pm - 3:00 pm	Over 1 hour	Rare Books
34	9/17/2015 16:26:	September	Research Help	Thursday	Outside Research	Researcher	Special Collection	1:00 pm - 3:00 pm	5 - 15 min	Rare Books
35	9/18/2015 14:48:	September	Research Help	Friday	Graduate	Researcher	Special Collection	1:00 pm - 3:00 pm	15 - 30 min	Archival/Manuscript

Filter - Add field

A	B	C	D	E	F	G	H	I	J	K	L	M	N
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Collection Development	
Curricular Consultation	
Event Planning	
Other	
Outreach	
Research Help	
Technology Help	
Grand Total	

Rows - Add field

Group by: Type of Interaction

Order: Ascending ▾

Sort by: Type of Interaction ▾

☒ Show totals

Columns - [Add field](#)

Values - Add field

Filter - Add field

Report Editor

'raw data!'A1:I278 - Edit range...

Rows - Add field

Group by: Type of Interaction

Order: Ascending ▾

Sort by: Type of Interaction ▾

☒ Show totals

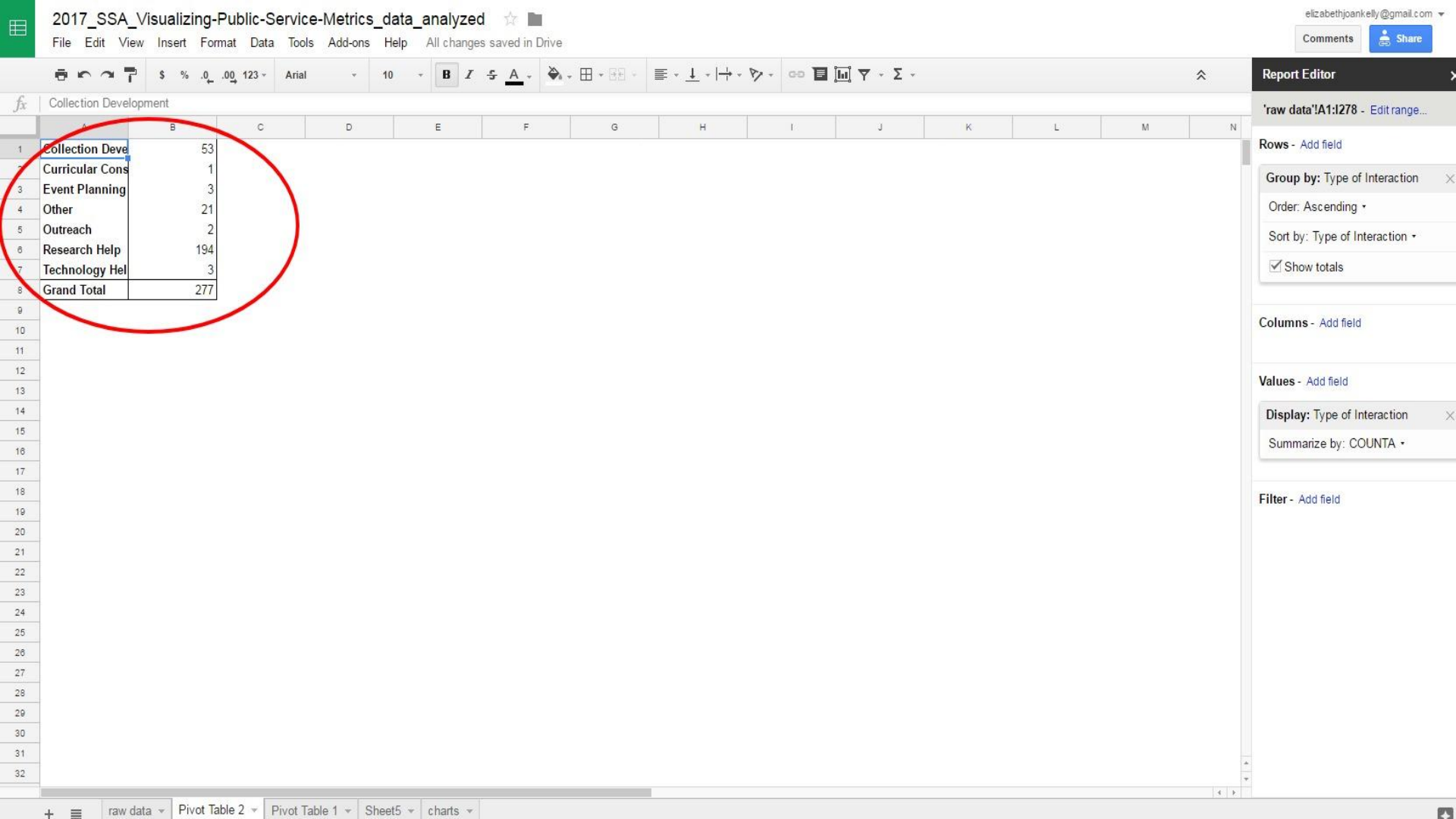
Columns - Add field

Values - Add field

Display: Type of Interaction

Summarize by: SUM ▾

- | |
|-------------|
| SUM |
| COUNTA |
| COUNT |
| COUNTUNIQUE |
| AVERAGE |
| MAX |
| MIN |
| MEDIAN |
| PRODUCT |
| STDEV |
| STDEVP |
| VAR |
| VARP |



File Edit View

Insert

Format

Data

Tools

Add-ons

Help

All changes saved in Drive

Comments

Share



7 Rows above

7 Rows below

2 Columns left

2 Columns right

Cells and shift down

Cells and shift right

New sheet Shift+F11

Comment Ctrl+Alt+M

Note Shift+F2

Function

Chart...

Image...

Link... Ctrl+K

Form...

Drawing...



	D	E	F	G	H	I	J	K	L	M	N	O	P
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raw data

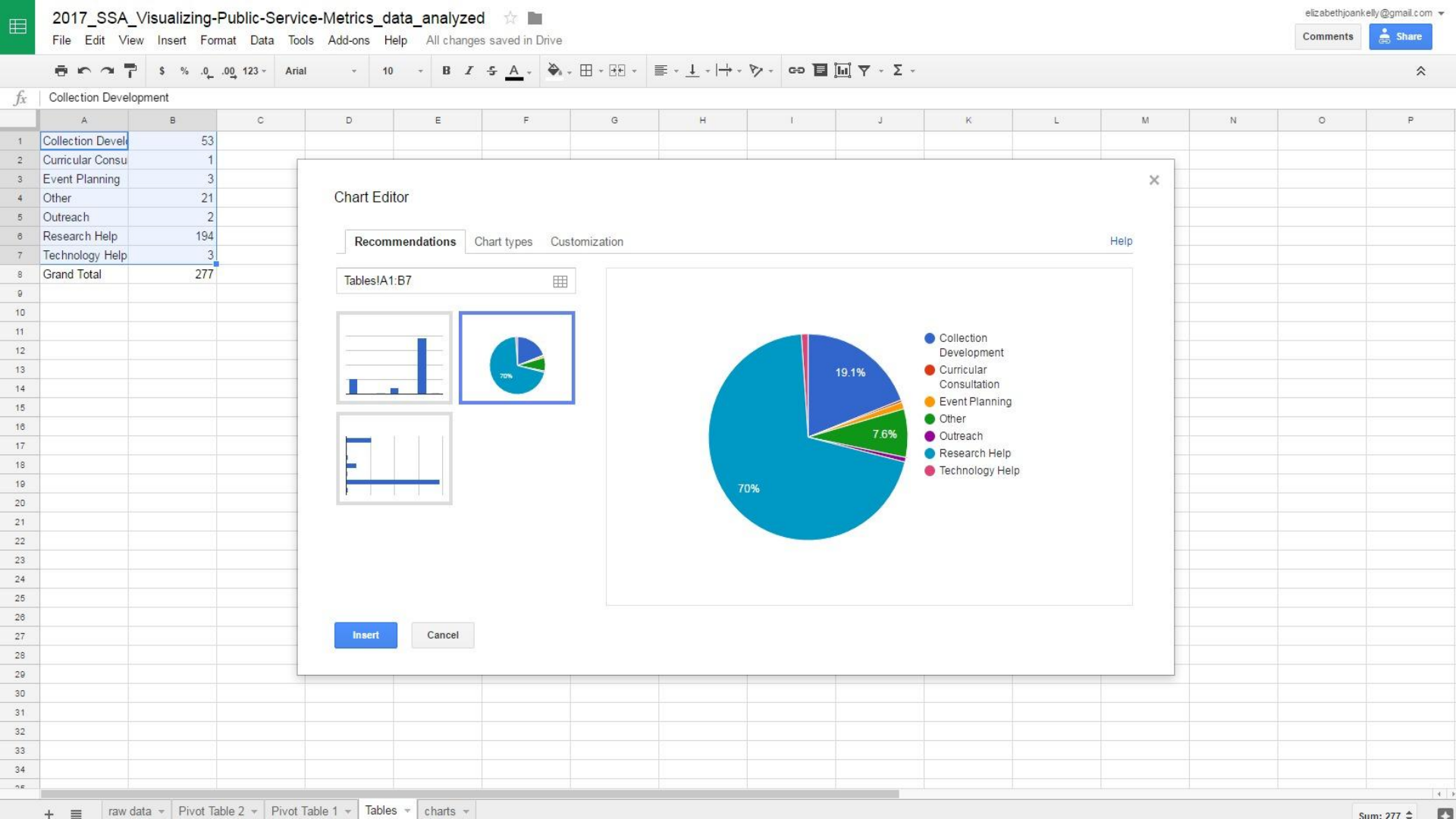
Pivot Table 2

Pivot Table 1

Tables

charts

Sum: 277



CUSTOMIZE

Chart Editor

Recommendations

Chart types

Customization

Help

Chart

Title

B*I*

16

■

Legend

Right

B*I*

12

■

Font

Arial

Background

□

Slice

Percen...

12

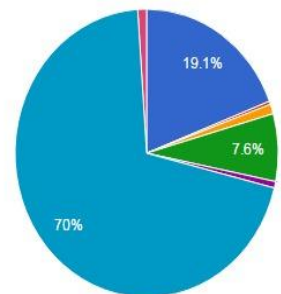
□

Border

□

Update

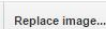
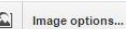
Cancel



- Collection Development
- Curricular Consultation
- Event Planning
- Other
- Outreach
- Research Help
- Technology Help

Data Visualization Checklist

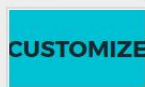
<https://tinyurl.com/datavizcheck>



39



40



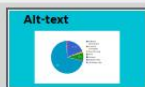
41



42



43



44



45



46



47

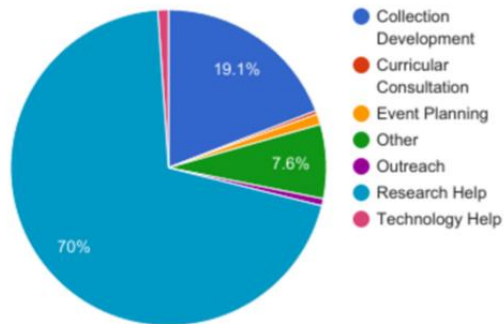


48



- B Bold Ctrl+B
- I Italic Ctrl+I
- U Underline Ctrl+U
- ABC Strikethrough Alt+Shift+5
- x² Superscript Ctrl+=
- x₂ Subscript Ctrl+_
- Font size
- Text color
- Paragraph styles
- Align
- Line spacing
- Lists
- Capitalization
- Clear formatting Ctrl+\
- Fill color
- Change shape
- Change connector
- Reroute connector
- Borders & lines
- Crop image
- Image options...
- Replace image...
- Reset image
- Video options...
- Alt text...

Alt-text



Click to add speaker notes



OTHER tools



Analyse des principaux candidats

TABLEAU

Includes both free and subscription products. The free Tableau Desktop Public uses desktop software but publishes your visualizations online.

Plusieurs profils géographiques apparaissent. En effet, on voit ici, comme dans les cartes précédentes, que le Front National est très peu plébiscité dans les zones urbaines. On peut voir également que F. FILLON a bénéficié du soutien des électeurs de son fief proche de la Sarthe. Pour J-L. MELENCHON, c'est dans les grandes villes ainsi que dans l'Ariège et en Bretagne qu'il a été le plus performant, des zones connues pour être traditionnellement à gauche. E. MACRON a, quant à lui, été plébiscité de manière homogène, avec une préférence dans les zones urbaines et un léger désamour dans l'Est de la France. Enfin, B. HAMON a bénéficié de quelques soutiens d'électeurs dans le Sud de la France.

Deux types de cartes sont disponibles : polygones ou cartogrammes.

Cartogrammes (France entière)



See some of today's data visualized in Tableau [here](#).

Change in Snowmelt Timing (1975 - 2040)

GOOGLE FUSION TABLES

Free, includes map tools

Freshwater Maps

Change in Snowmelt Timing
(1975 - 2040)

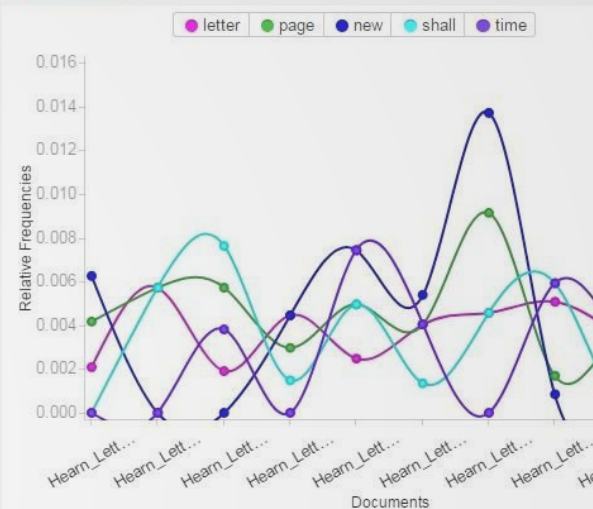
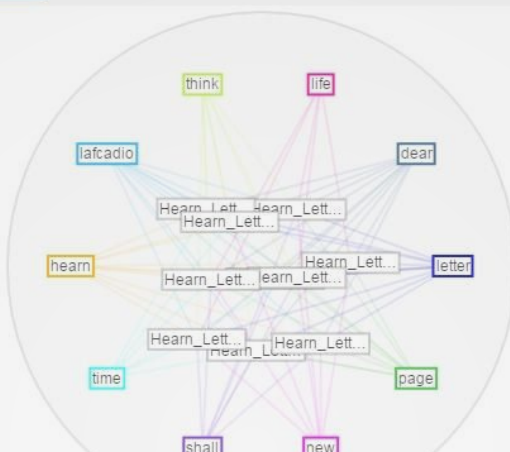
- Earlier by over 3 weeks
- Earlier by 2 to 3 weeks
- Earlier by 1 to 2 weeks
- Less than a week changed
- Later by over a week
- Little or no snow
- No Data

See some of today's data visualized
in Google Fusion tables [here](#).

SENTIMENT VIZ


Also free, visualizes Tweets in several ways including by sentiment






VOYANT

Primary Documents Phrases Contexts Bubblelines

Length: 
 Longest: [Hearn_Letter-32](#) (1183); [Hearn_Letter-27](#) (743); [Hearn_Letter-24](#) (674); [Hearn_Letter-52](#) (535); [Hearn_Letter-23](#) (525)
 Shortest: [Hearn_Letter-30](#) (219); [Hearn_Letter-49](#) (286); [Hearn_Letter-05](#) (350); [Hearn_Letter-26](#) (404); [Hearn_Letter-03](#) (480)

Best: **Heam_Letter-49** (0.657); **Heam_Letter-30** (0.621); **Heam_Letter-26** (0.594); **Heam_Letter-03** (0.594); **Heam_Letter-05** (0.571)
 Next: **Heam_Letter-32** (0.419); **Heam_Letter-27** (0.472); **Heam_Letter-24** (0.481); **Heam_Letter-52** (0.527); **Heam_Letter-23** (0.531)

Words Per Sentence: 

Test: [Hearn_Letter-03](#) (43.6); [Hearn_Letter-52](#) (33.4); [Hearn_Letter-05](#) (26.9); [Hearn_Letter-27](#) (24.8); [Hearn_Letter-49](#) (23.8)

Test: [Hearn_Letter-23](#) (14.2); [Hearn_Letter-26](#) (15.5); [Hearn_Letter-30](#) (19.9); [Hearn_Letter-32](#) (20.4); [Hearn_Letter-24](#) (21.1)

Also free, analyzes text, can read OCRd PDFs. See example [here](#).

Hearn_Letter-24

Recommended Sources

Data Distortion No-No's

[13 Graphs That Are Clearly Lying](#)
[Misleading Graphs: Real Life Examples](#)

Choosing the Right Graph

[The Data Visualization Catalog](#)
[Effective Data Visualization: The Right Chart for the Right Data](#)
[Chart Suggestions](#)
[Data Visualization Checklist](#)
[Visualization: Choosing a Chart](#)
[Which Chart or Graph is Right for You?](#)

Tools

Charts and Graphs: [Gephi](#), [Google Fusion Tables](#), [Google Sheets](#), [Excel](#), [LibreOffice Calc](#), [Open Office Calc](#), [Tableau Public](#)
Text Analysis: [ViewShare](#), [Voyant](#)
Maps: [Google Fusion Tables](#), [Storymap JS](#), [Storymaps](#), [Tableau Public](#), [ViewShare](#)
Timelines: [Neatline](#), [TimeMapper](#), [Timeline JS](#), [ViewShare](#)
Social Media: [Sentiment Viz](#), [SocioViz](#), [TAGS](#)

Training

[UWM Data Visualization Camp Instructional Materials](#)
[NCSU Data Visualization Workshops](#)
[NCSU Data Science and Visualization Institute for Librarians](#)



THANKS!

Any questions?

You can find me at @ElizabethJelly & ejkelly@loyno.edu

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by [SlidesCarnival](#)
- Photographs by [Unsplash](#)