

Improving user engagement in a data repository with web analytics

LITA Forum

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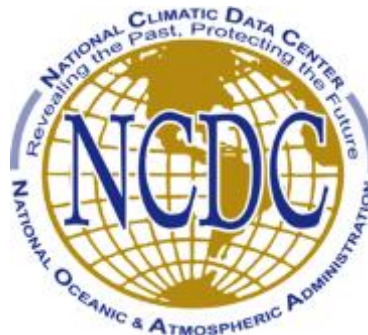


Data Services @ IUPUI

Existing services to meet researcher needs:

- Data management plans (DMP) & planning: create, review, refine, and implement DMP
- **Preservation repository (IUPUIDataWorks): store, preserve, and share research data**
- Create and manage persistent identifiers (DOI)
- Training lab: provide training in information/data management best practices using available infrastructure

Why start a data repository?



IR Value Proposition

- Increase the impact of research products
 - Administration
 - Faculty
 - P&T Committees
- Promote data sharing and re-use
 - Funding agencies
 - Research communities/Communities of Practice
 - Research labs/teams
 - Student training

IR Value Proposition

- Preserve the scholarly record
 - Funding Agencies
 - Libraries
 - Research communities/Communities of Practice
 - Commercial entities
- Demonstrate library commitment to preservation and curation of institutional content
- Comply with funding agency requirements
- Support increased transparency and accountability in research

dSpace

Pros



- We have it
- We know it
- It's free, sort of
- Widely used
- Support community

Downsides



- No ability to try before you buy
- Community & collection silos
- Interface is library-centric

IUPUI DataWorks



INDIANA UNIVERSITY-PURDUE UNIVERSITY INDIANAPOLIS

University Library

DATAWORKS

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IUPUI DataWorks

Welcome to IUPUI DataWorks, a repository for preserving and sharing IUPUI digital research data. For our repository of publications, including journal articles, presentations, and other scholarly products, visit <http://scholarworks.iupui.edu>. For our cultural heritage materials, visit <http://ulib.iupui.edu/digitalscholarship>.

IUPUI DataWorks may be unavailable during our periodic systems [maintenance window](#).

Search DataWorks

Enter some text in the box below to search DataWorks.

Questions

- What is the role for institutional repositories in complementing subject- or community-based repositories?
- How are institutional data repositories
 - Discovered?
 - Accessed?
 - Searched vs. browsed?
- What do we (IUPUI University Library) really care about?

IMPLEMENTATION

Basic Configuration

Created a new profile to customize how data appears in reports:

Profile Settings

- exclude extraneous URL query parameters
- enable site search tracking
 - categories to distinguish between keywords and subjects terms

Filters

- exclude admin traffic
- exclude new item submissions
- exclude item submission workflow

Goals

- file downloads (datasets or documentation)

Advanced Configuration

Track clicks on outbound links
and file downloads

Google Tag Manager

- auto-event tracking feature
 - outbound links and file downloads are recorded as events
 - downloads are disaggregated by file type (pdf, csv, xlsx, etc.)

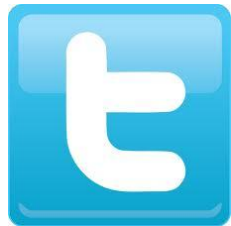


<http://www.google.com/tagmanager>

FOUR QUESTIONS



Acquisition

Q: How do users find our data repository?

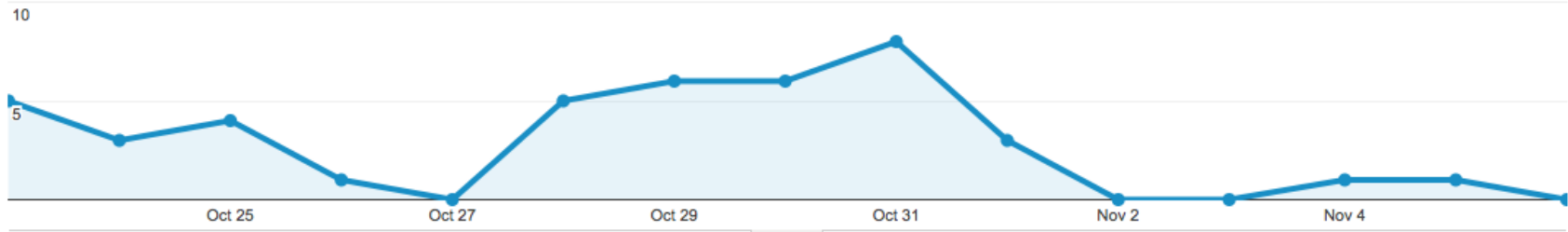


Channels Report

Visits vs. [Select a metric](#)

Day Week Month  

● Visits



Primary Dimension: **Default Channel Grouping** [Source / Medium](#) [Source](#) [Medium](#) [Other](#)

Plot Rows

Secondary dimension

Sort Type: Default



advanced



	Default Channel Grouping	Acquisition			Behavior			Conversions All Goals		
		Visits [?] ↓	% New Visits [?]	New Visits [?]	Bounce Rate [?]	Pages / Visit [?]	Avg. Visit Duration [?]	Goal Conversion Rate [?]	Goal Completions [?]	Goal Value [?]
		43 <small>% of Total: 100.00% (43)</small>	41.86% <small>Site Avg: 41.86% (0.00%)</small>	18 <small>% of Total: 100.00% (18)</small>	34.88% <small>Site Avg: 34.88% (0.00%)</small>	3.65 <small>Site Avg: 3.65 (0.00%)</small>	00:03:35 <small>Site Avg: 00:03:35 (0.00%)</small>	13.95% <small>Site Avg: 13.95% (0.00%)</small>	6 <small>% of Total: 100.00% (6)</small>	\$0.00 <small>% of Total: 0.00% (\$0.00)</small>
<input type="checkbox"/>	1. Referral	20	30.00%	6	35.00%	3.50	00:03:26	15.00%	3	\$0.00
<input type="checkbox"/>	2. Direct	10	50.00%	5	30.00%	3.80	00:04:47	10.00%	1	\$0.00
<input type="checkbox"/>	3. Organic Search	9	55.56%	5	33.33%	3.56	00:01:19	11.11%	1	\$0.00
<input type="checkbox"/>	4. Social	4	50.00%	2	50.00%	4.25	00:06:26	25.00%	1	\$0.00

Referral Traffic

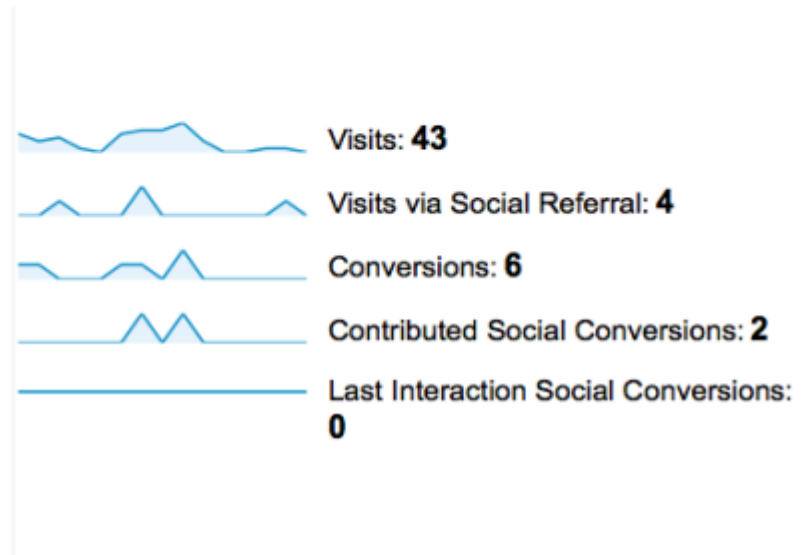
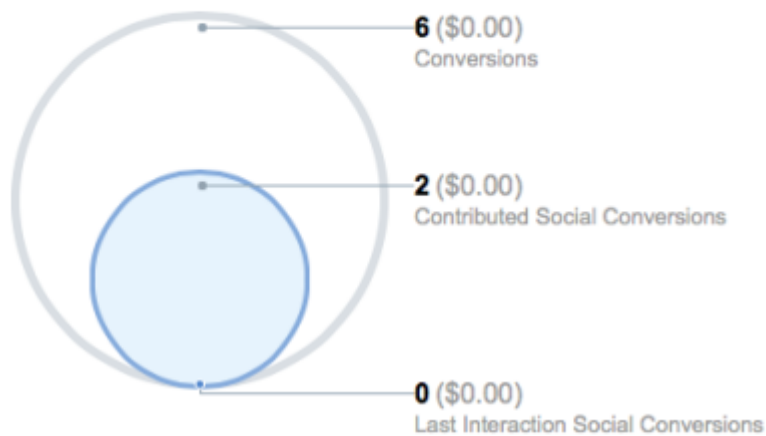


Primary Dimension: [Source](#) [Landing Page](#) [Other](#)

Source	Acquisition			Behavior			Conversions		
	Visits	% New Visits	New Visits	Bounce Rate	Pages / Visit	Avg. Visit Duration	Goal Conversion Rate	Goal Completions	Goal Value
	24 <small>% of Total: 55.81% (43)</small>	33.33% <small>Site Avg: 41.86% (-20.37%)</small>	8 <small>% of Total: 44.44% (18)</small>	37.50% <small>Site Avg: 34.88% (7.50%)</small>	3.62 <small>Site Avg: 3.65 (-0.72%)</small>	00:03:56 <small>Site Avg: 00:03:35 (9.80%)</small>	16.67% <small>Site Avg: 13.95% (19.44%)</small>	4 <small>% of Total: 66.67% (6)</small>	\$0.00 <small>% of Total: 0.00% (\$0.00)</small>
1. news.iupui.edu	9	55.56%	5	33.33%	3.11	00:03:47	11.11%	1	\$0.00
2. google.com	6	0.00%	0	50.00%	3.33	00:02:04	16.67%	1	\$0.00
3. iupui.edu	4	25.00%	1	25.00%	4.00	00:05:29	25.00%	1	\$0.00
4. facebook.com	2	50.00%	1	50.00%	3.00	00:00:07	50.00%	1	\$0.00
5. people.virginia.edu	1	0.00%	0	0.00%	6.00	00:00:13	0.00%	0	\$0.00
6. pinboard.in	1	0.00%	0	100.00%	1.00	00:00:00	0.00%	0	\$0.00
7. t.co	1	100.00%	1	0.00%	10.00	00:25:30	0.00%	0	\$0.00

Social Overview

Social Value



Social Sources

Social Network

Pages

Shared URL

Social Plugins

Social Source

Social Network

Social Network	Visits	% Visits
1. Facebook	2	50.00%
2. Pinboard	1	25.00%
3. Twitter	1	25.00%

[view full report](#)

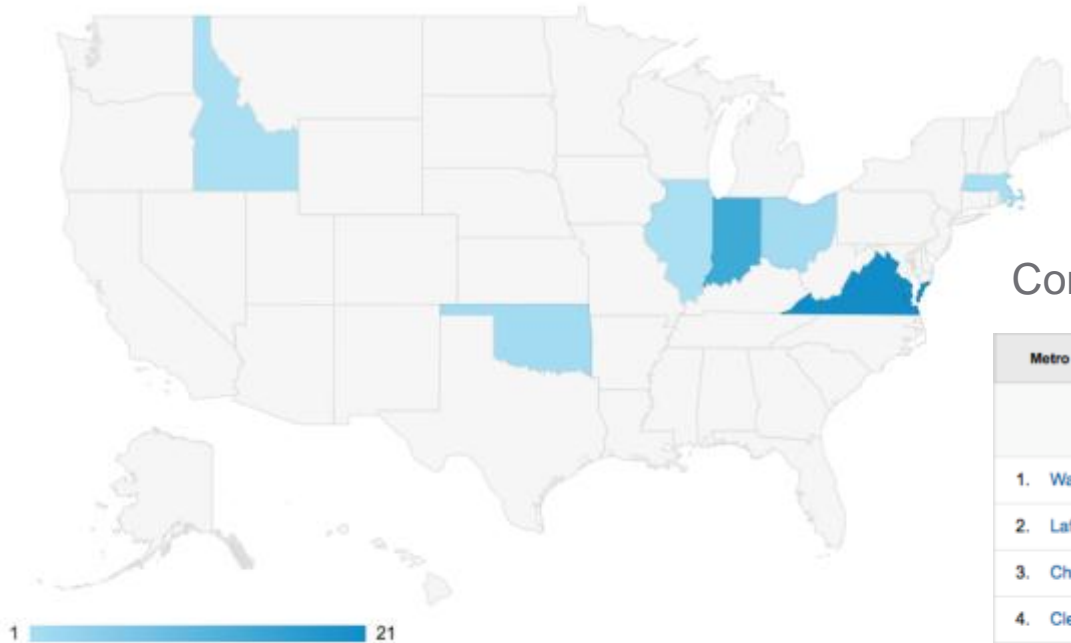
Audience

Q: What are some general characteristics of our users?



Location Report

Visits by U.S. State



Conversion Rates for Metropolitan Areas

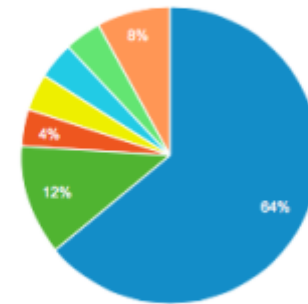
Metro	Visits ?	Goal Conversion Rate ? ↓
	42 % of Total: 97.67% (43)	14.29% Site Avg: 13.95% (2.36%)
1. Washington DC (Hagerstown MD)	5	40.00%
2. Lafayette IN	5	20.00%
3. Charlottesville VA	16	18.75%
4. Cleveland-Akron (Canton) OH	1	0.00%
5. Cincinnati OH	1	0.00%
6. Indianapolis IN	8	0.00%
7. Louisville KY	1	0.00%
8. Springfield-Holyoke MA	1	0.00%
9. Chicago IL	1	0.00%
10. Oklahoma City OK	2	0.00%

Network Service Providers



Primary Dimension: Service Provider Hostname

Service Provider	Goal Completions	Visits	Contribution to total: Visits
	4 % of Total: 66.67% (6)	25 % of Total: 56.82% (44)	
1. university of virginia	3	64.00%	
2. purdue university	1	12.00%	
3. boise state university	0	4.00%	
4. indiana university-purdue university at indianapolis	0	4.00%	
5. university of cincinnati	0	4.00%	
6. university of massachusetts	0	4.00%	
7. university of oklahoma	0	8.00%	



Behavior

Q: How is the data repository being used (or not)?

internal site searches

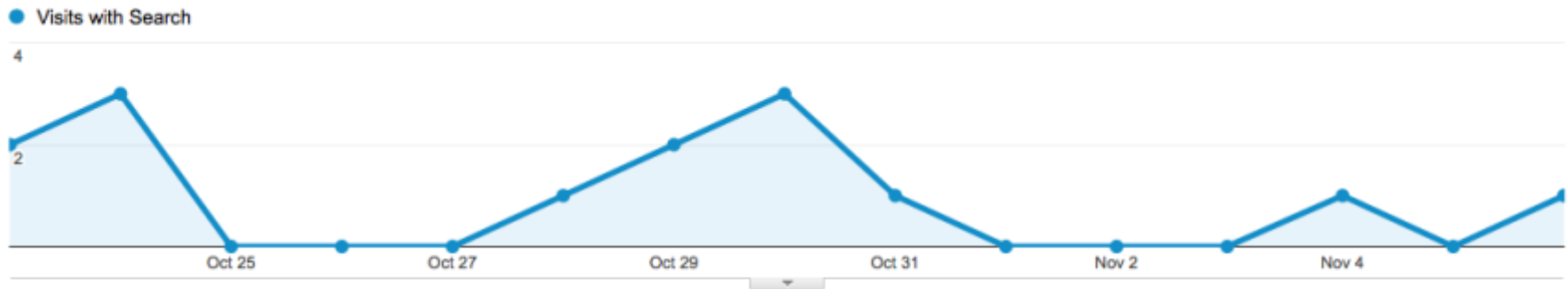
faceted browsing

social media shares

file downloads

INDIANA UNIVERSITY-PURDUE UNIVERSITY INDIANAPOLIS
University Library
DATAWORKS
Summer Durrant Logout Home About Contact Us
Search DataWorks
Advanced Search
Browse
By Issue Date
Authors
Titles
Topics
This Collection
By Issue Date
Authors
Titles
Topics
My Account
Logout
Profile
Submissions
Context
Edit this Item
Export Item
Export Metadata
Survey of Academic Librarian Attitudes about Open Access
Palmer, Kristi L.; Dill, Emily.; Christie, Charlene
Permanent Link: <http://hdl.handle.net/11243/7>
Date: 2013-07-17
Abstract:
This data resulted from a national survey conducted in the summer of 2006 of academic librarians' attitudes toward open access principles and related behaviors. It is described in the article titled "Where there's a will there's a way." The full citation is: Palmer, Kristi L., Emily Dill, and Charlene Christie. "Where There's a Will There's a Way," in College & Research Libraries. 70(4): 315-330.
Topics: [Open access publishing](#) | [Academic librarians -- Attitudes](#) | [Communication in learning and scholarship -- Technological innovations](#)
Type: Dataset
Files in this item
Name: PalmerK_DataShare ...
Size: 35.66Kb
Format: Unknown
[View/Open](#)

Site Search Overview



31.82% of your visits used site search

Visits with Search

14



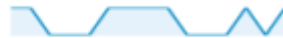
Total Unique Searches

15



Results Pageviews / Search

1.00



% Search Exits

26.67%



% Search Refinements

6.67%



Time after Search

00:03:21

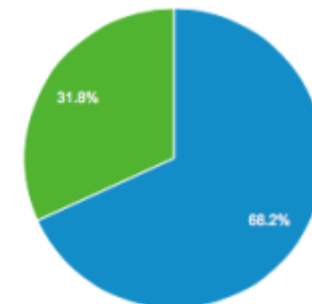


Search Depth

1.67



■ Visits Without Site Search ■ Visits With Site Search

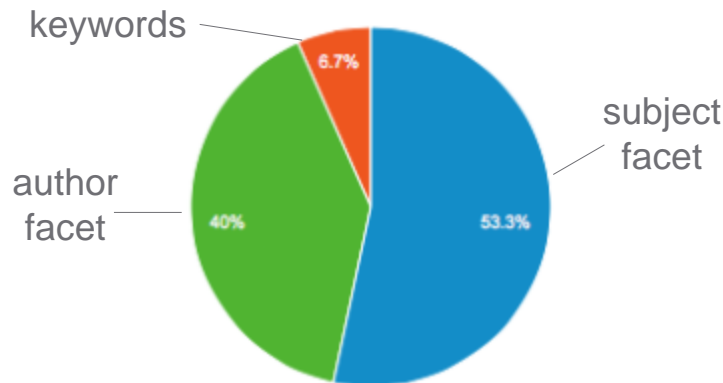


Search Terms

Search and Browse Categories

Site Search Category	Total Unique Searches	Total Unique Searches
	15 % of Total: 100.00% (15)	15 % of Total: 100.00% (15)
1. ■ subject	8	53.33%
2. ■ author	6	40.00%
3. ■ (not set)	1	6.67%

(Not set) means the user performed a keyword search. Author and subject are categories of faceted browsing.



Top Search/Browse Terms

Search Term	Total Unique Searches	Goal Conversion Rate
	15 % of Total: 100.00% (15)	6.67% Site Avg: 40.00% (-83.33%)
1. Durrant, Summer	3	33.33%
2. Google Analytics	3	0.00%
3. Academic libraries -- Reference services	1	0.00%
4. Coates, Heather L.	1	0.00%
5. Internet searching -- Statistical services	1	0.00%
6. Internet users -- Statistics -- Data processing	1	0.00%
7. Palmer, Kristi L.	1	0.00%
8. Social networks	1	0.00%
9. web analytics	1	0.00%
10. Webometrics	1	0.00%

Events Overview



8 of your visits sent events

Total Events

12



Unique Events

8



Event Value

0



Avg. Value

0.00



Visits with Event

8



Events / Visit

1.50



Top Events

Event Category

Event Action

Event Label

Event Category

1. Downloads

2. Outbound Links

Total Events

% Total Events

7



58.33%

5



41.67%

[view full report](#)

File Downloads

Downloads by File Type

<input type="checkbox"/>	Event Label ?	Total Events ? ↓
		7 % of Total: 58.33% (12)
<input type="checkbox"/>	1. CSV	5
<input type="checkbox"/>	2. PDF	1
<input type="checkbox"/>	3. XLSX	1

Downloads by Study-Level Record

<input type="checkbox"/>	Page ?	Total Events ? ↓
		7 % of Total: 58.33% (12)
	1. /handle/11243/6 	4
	2. /handle/11243/7 	2
	3. /handle/11243/8 	1

Individual File Downloads

<input type="checkbox"/>	Event Action ?	Total Events ? ↓
		7 % of Total: 58.33% (12)
1.	https://dataworks.iupui.edu/bitstream/handle/11243/6/CoatesH_thesis_raw_anonShared_20130703.csv?sequence=1	3
2.	https://dataworks.iupui.edu/bitstream/handle/11243/6/CoatesH_thesis_raw_anonShared_20130703_DataKey.csv?sequence=3	1
3.	https://dataworks.iupui.edu/bitstream/handle/11243/7/PalmerK_DataLegendSW.pdf?sequence=2	1
4.	https://dataworks.iupui.edu/bitstream/handle/11243/7/PalmerK_DataShareSW_CleanAge.csv?sequence=1	1
5.	https://dataworks.iupui.edu/bitstream/handle/11243/8/Content%20Views.xlsx?sequence=2	1

Conversions

Q: How effective is the data repository in expanding access to research data created at the university?

Conversions Overview



Goal Completions 6	Goal Value \$0.00	Goal Conversion Rate 13.64%	Total Abandonment Rate 0.00%	Downloads (Goal 1 Completions) 6
-------------------------------------	------------------------------------	----------------------------------------------	-----------------------------------------------	---------------------------------------------------

Goals

Goal Completion Location ▶

Source / Medium

Goal Completion Location	Goal Completions	% Goal Completions
1. /handle/11243/6	4	66.67%
2. /handle/11243/7	1	16.67%
3. /handle/11243/8	1	16.67%

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Multi-Channel Funnels

There were 6 total conversions

 Conversions: 6

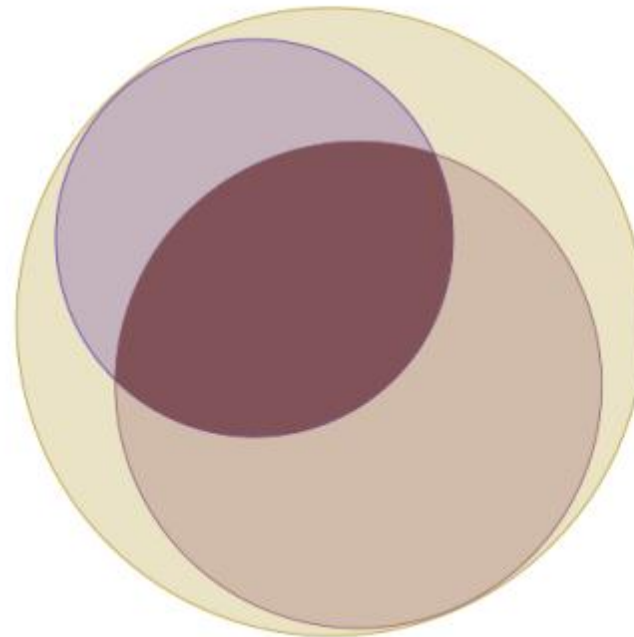
 Assisted Conversions: 5

Multi-Channel Conversion Visualizer

See the percentage of conversion paths that included combinations of the channels below. Select up to four channels.

Channel	% of total conversions
<input checked="" type="checkbox"/> Direct	83.33%
<input checked="" type="checkbox"/> Referral	50.00%
<input checked="" type="checkbox"/> Social Network	33.33%
<input type="checkbox"/> Organic Search	33.33%

Direct & Referral & Social Network: 16.67% (1)



Top Conversion Paths



Primary Dimension: MCF Channel Grouping Path Source/Medium Path Source Path Medium Path Other Channel Groupings

Secondary dimension

advanced

MCF Channel Grouping Path	Conversions	Conversion Value
1. Direct × 2	1	\$0.00
2. Direct Referral	1	\$0.00
3. Direct Referral Direct × 2 Organic Search Referral	1	\$0.00
4. Social Network Direct	1	\$0.00
5. Social Network Direct Referral × 2 Direct × 2	1	\$0.00

NEXT STEPS

Making use of GA data

- Provide author-level reports for inclusion in faculty P&T dossiers
- Provide department-level reports
- Inform outreach and social media promotion of datasets
- Inform deposit and curation practices, specifically metadata creation
- Advocate for data sharing, preservation, curation using local evidence demonstrating the benefits

QUESTIONS?

Acknowledgment

A big thanks to Andy Smith, on the University Library Operations Team, for his technical wizardry!

Contact Us

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Images

- Data Debate: Is transparency bad for science? <http://blog.okfn.org/2011/11/28/data-debate-is-transparency-bad-for-science/>
- Dryad Digital Repository: <http://datadryad.org/>
- Figshare: <http://figshare.com/>
- National Center for Biotechnology Information: <http://www.ncbi.nlm.nih.gov/>
- Reproducibility Initiative: <https://www.scienceexchange.com/reproducibility>