

Using altmetrics to transform collection development decisions

Stacy Konkiel

Director of Research & Education, Altmetric

Nickoal Eichmann-Kalwara

Digital Scholarship Librarian, University of Colorado, Boulder

Robin Champieux

Scholarly Communication Librarian, Oregon Health & Science University



Introduction

Altmetrics: a working definition



The **volume** and **nature of attention** that research receives online.

How often are people talking, what's being said, and who is saying it?

How do US academic librarians use altmetrics for collection development?

About the nationwide study

- Survey of **13,436 librarians** at 150 Carnegie-classified “R1” institutions in the US
 - Direct email (manually collected)
 - 707 respondents (5.3% response rate)
- Collected answers via Qualtrics
- Data analysis via Qualtrics and SPSS

Rachel Miles

Digital Scholarship Librarian
Kansas State University

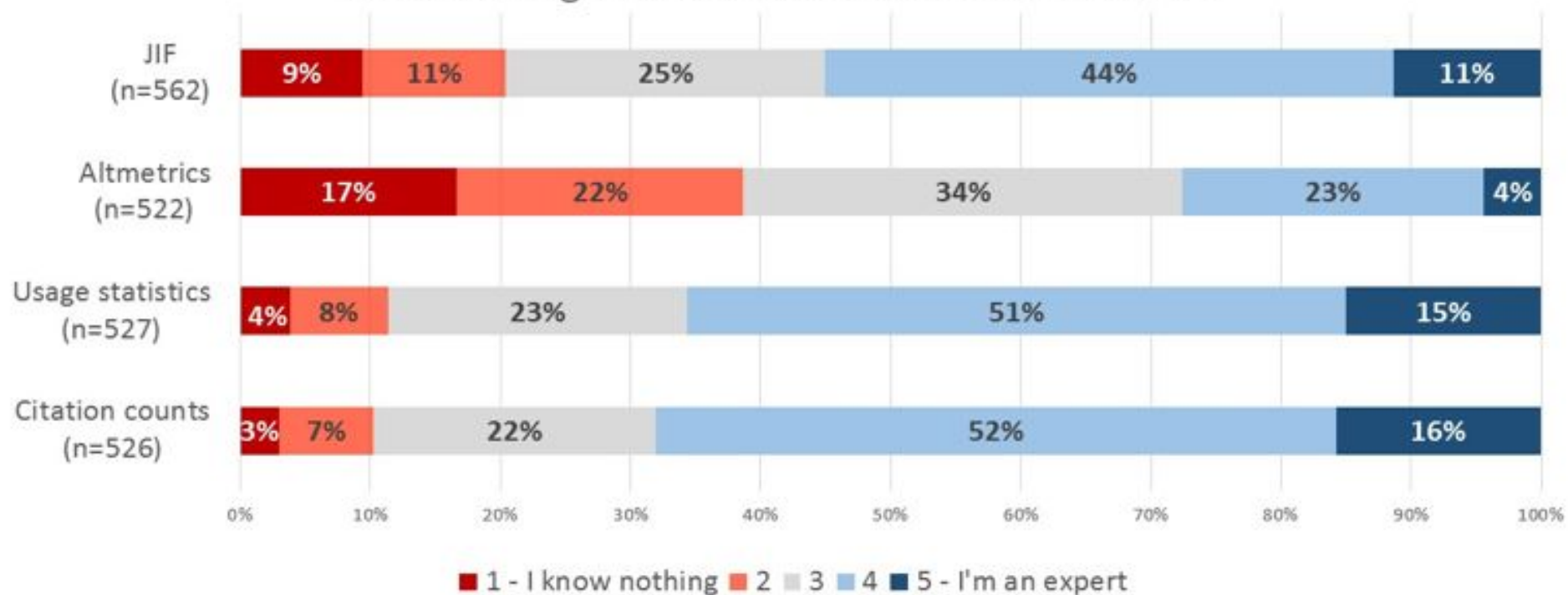


Sarah Sutton

Assistant Professor, Library
& Information Science
Emporia State University

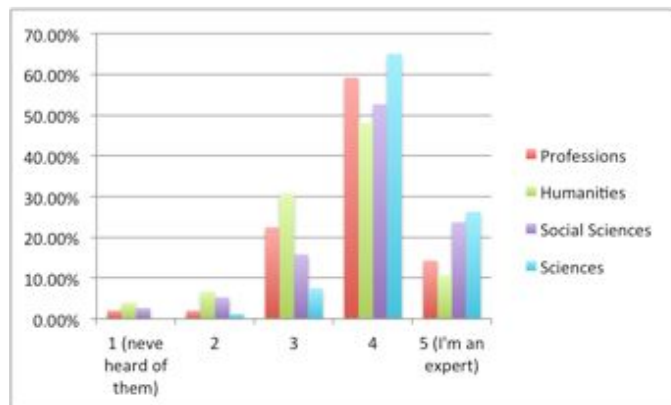


How familiar are you with the concept of **journal impact factors** and the following measures of **article-level metrics**?

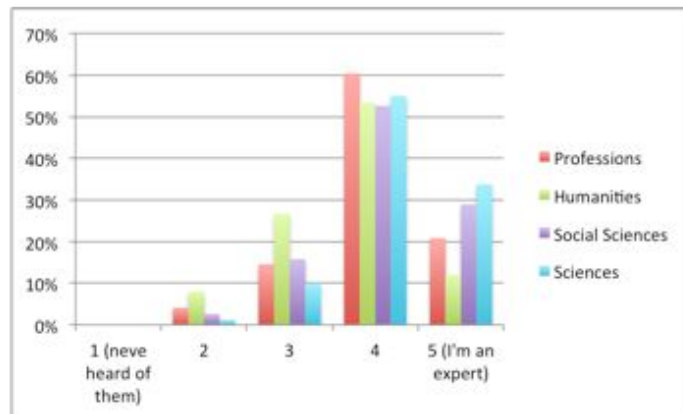


Familiarity by discipline (among c.d. librarians)

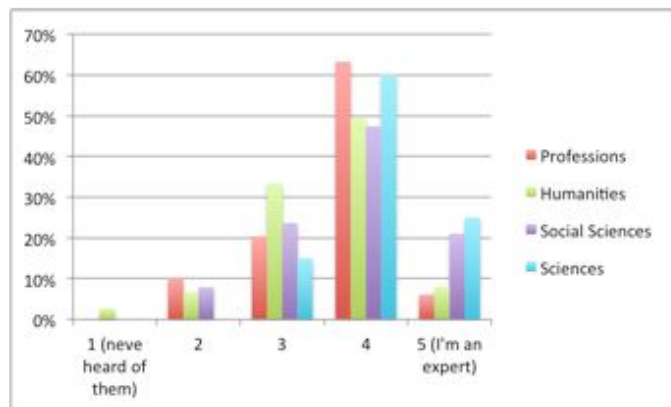
Journal Impact Factor



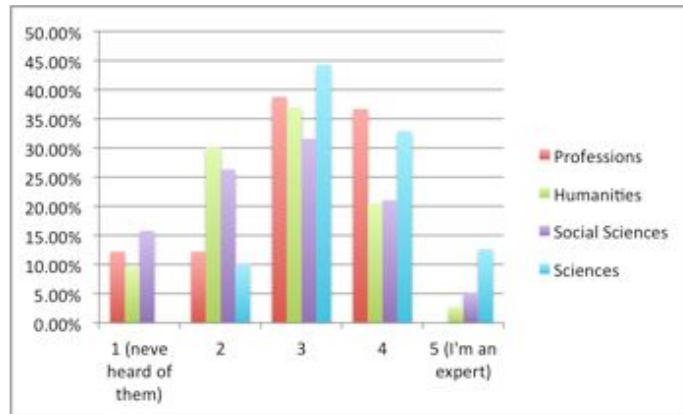
Citation counts



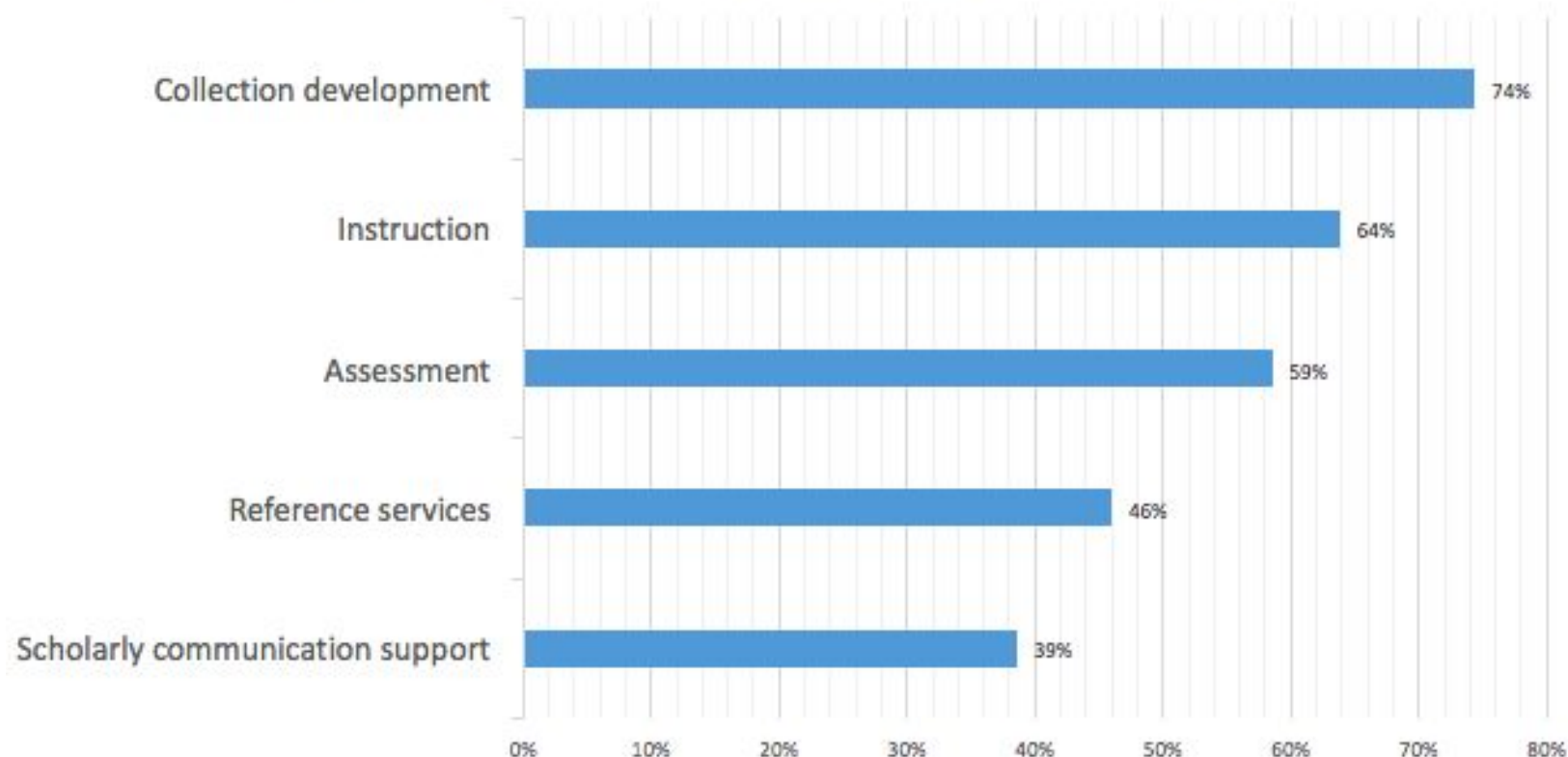
Usage statistics



Altmetrics

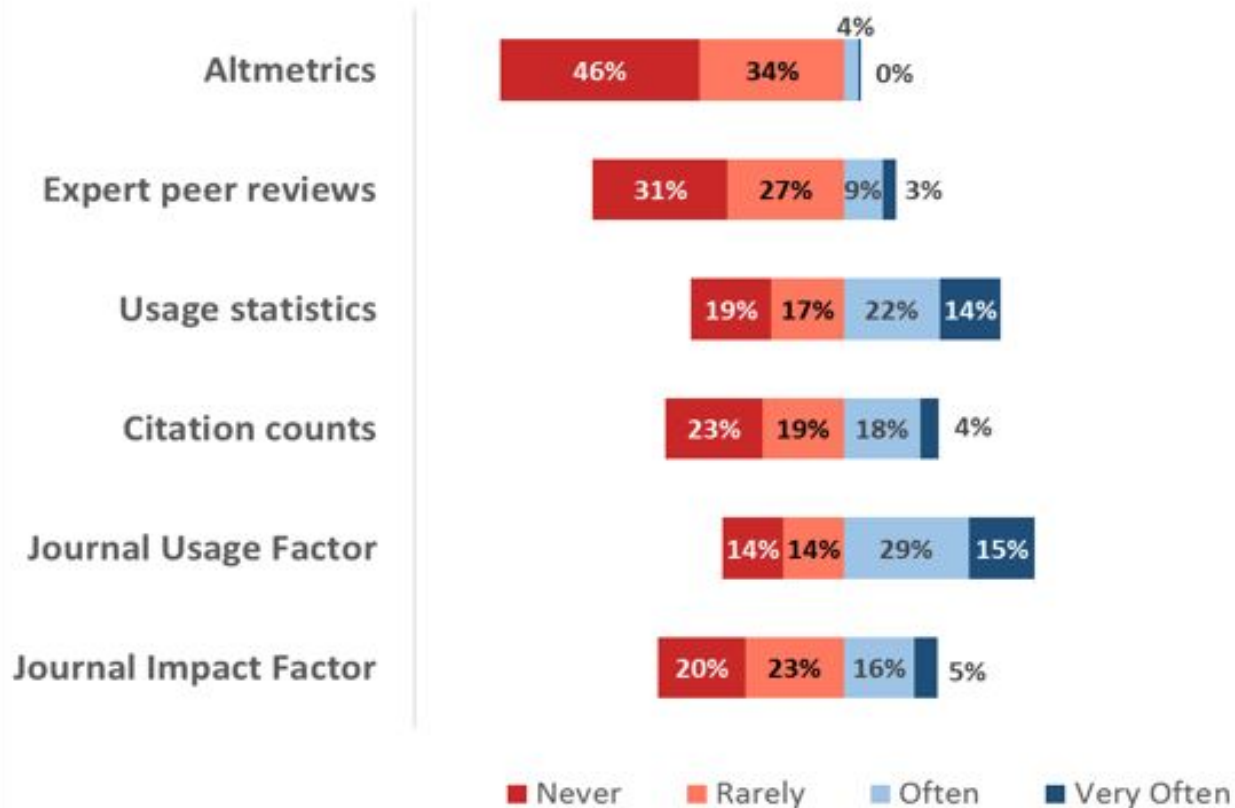


What sort of duties do you perform regularly (1x/month or more) for your job? Check all that apply. (n=511)



How often do you evaluate materials using the following indicators of research impact in the context of your collection development duties?

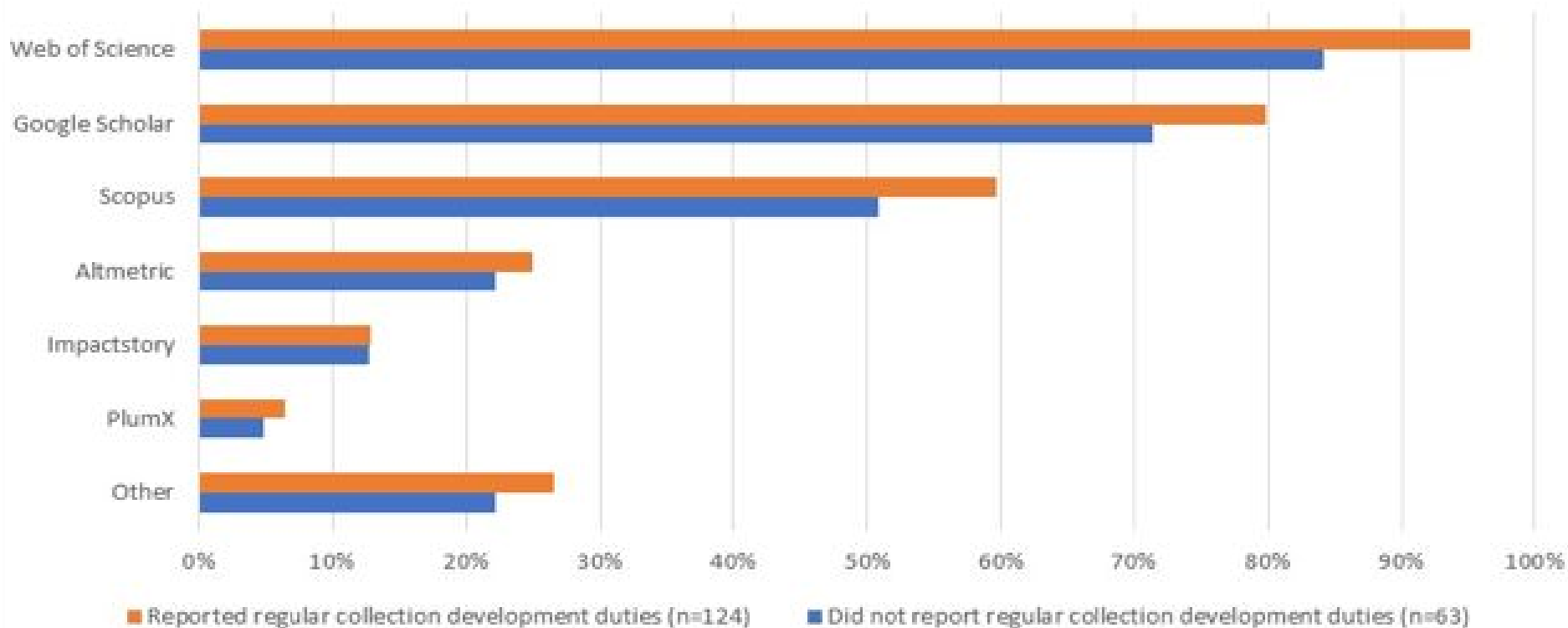
n = 320



Which factors affect the use of/familiarity with metrics for collection development?

Tenure status	No
Years of experience	No (unconfirmed)
Having regular scholcomm duties	Yes
Having regular instruction duties	Yes (for usage statistics)
Disciplinarity	Yes (familiarity)

What websites or databases did you use to compile evidence of research impacts?



Takeaways

- Journal Usage Factor and usage statistics most likely to be used for collection development.
- Altmetrics least likely to be used for collection development.
- Where librarians use altmetrics overall, they are most likely to use Altmetric or Scopus to gather this information.

Altmetric Explorer and Collection Development for History

Why Altmetrics for Humanities?

- Humanities have a slower citation rate :: real time data
- Humanities have slower rate of obsolescence :: “old” data is ok
- Use altmetrics to identify topics, journals, and books
- Enhance department liaison activities
- Recommended tool: Altmeter Explorer (for Librarians, Institution)

Collection Development Priorities

Department of History, Mississippi State University

Nodes of Excellence:

- History of Science and Technology (HOST)
- Agricultural, Rural, and Environmental (ARE)
- Empire, Power, Identity and Conflict (EPIC)

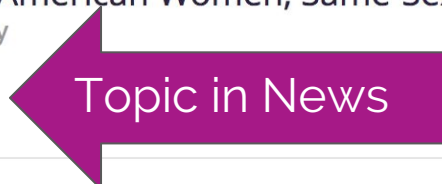
Limitations:

- Limited (decreasing) funding for journals
- Monographic / one-time purchase funds vary each year
- Primarily patron-driven collection model



"Woman Slain in Queer Love Brawl": African American Women, Same-Sex Desire, and Violence in the Urban North, 1920–1929 *Journal of African American History*

Historical Studies



Topic in News



Complete mapping of the tattoos of the 5300-year-old Tyrolean Iceman *Journal of Cultural Heritage*

Archaeology

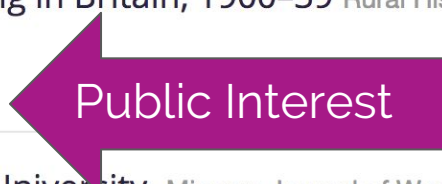
Curatorial And Related Studies

Historical Studies



'An incredibly vile sport': Campaigns against Otter Hunting in Britain, 1900–39 *Rural History*

Historical Studies



Public Interest



The Academic Manifesto: From an Occupied to a Public University. *Minerva Journal of Women & War*
Abstract [...]

Specialist Studies In Education

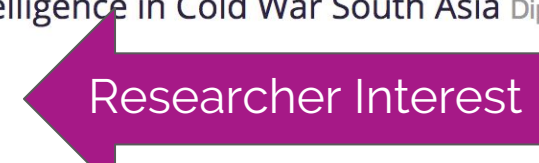
History And Philosophy Of Specific Fields

Policy And Administration



"Quiet Americans in India": The CIA and the Politics of Intelligence in Cold War South Asia *Diplomatic History*

Historical Studies



Researcher Interest



A snapshot of foundational attitudes toward quantum mechanics Studies in History & Philosophy of Modern Physics

Philosophy

History And Philosophy Of Specific Fields



The Urbanization of the Eastern Gray Squirrel in the United States Journal of American History

Historical Studies



America, Oil, and War in the Middle East Journal of American History

Historical Studies



The Role of Drought and Climate Change in the Syrian Uprising: Untangling the Triggers of the Revolution Middle Eastern Studies

History And Philosophy Of Specific Fields



Biological races in humans. Studies in History & Philosophy of Biological & Biomedical Sciences

Abstract [...]

Philosophy

History And Philosophy Of Specific Fields

















Warriors and women: the sex ratio of Norse migrants to eastern England up to 900 ad Early Medieval Europe

Historical Studies

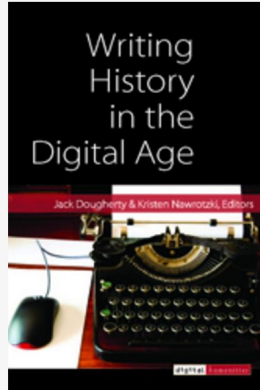
Identifying Journals

e.g., History of Medicine

549	6,666	6,666	8.08		Sociology of Health & Illness
411	6,344	6,344	7.5		Public Understanding of Science
397	4,898	4,898	6.06		Social Studies of Science (Sage Publications, Ltd.)
183	3,433	3,433	10.08		Medical Humanities
280	3,259	3,259	6.63		Science, Technology & Human Values
488	2,582	2,582	3		American Historical Review
476	2,475	2,475	3		Medical History
526	2,460	2,460	3		Journal of Economic History
264	2,414	2,414	6.63		Historical Research
474	2,174	2,174	3		ISIS: Journal of the History of Science in Society
240	2,086	2,086	3.7		Past & Present
283	2,060	2,060	3		Journal of American History
227	2,005	2,005	5.78		Social History of Medicine
165	1,840	1,840	6.4		Journal of Victorian Culture

Identifying Books

e.g., Digital Humanities



? Overall attention for this book



Mentioned by

8 blogs
112 tweeters

11 Facebook pages
1 Google+ user

Readers on

15 Mendeley

SUMMARY

Blogs

Twitter

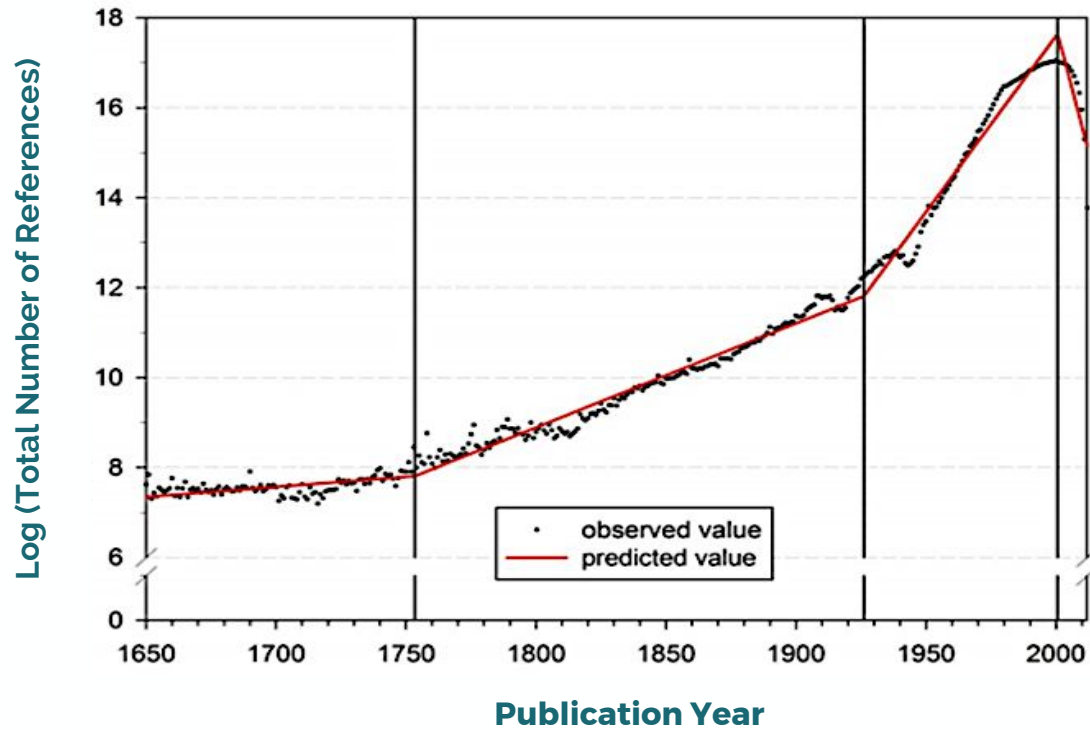
Facebook

Google+

Title	Writing History in the Digital Age
Published by	Digital Humanities, January 2013
DOI	10.3998/dh.12230987.0001.001 ↗
ISBNs	978-0-472-07206-4, 978-0-472-05206-6, 978-0-472-02991-4, 978-0-472-90024-4
Authors	Kristen Nawrotzki, Jack Dougherty
Editors	Jack Dougherty, Kristen Nawrotzki

- WoS: 0 citations
- GoogleScholar: 15 citations
- WorldCat: 351 holdings

COLLECTION DEVELOPMENT & THE TOOLS OF SOCIAL SCIENTIFIC COMMUNICATION

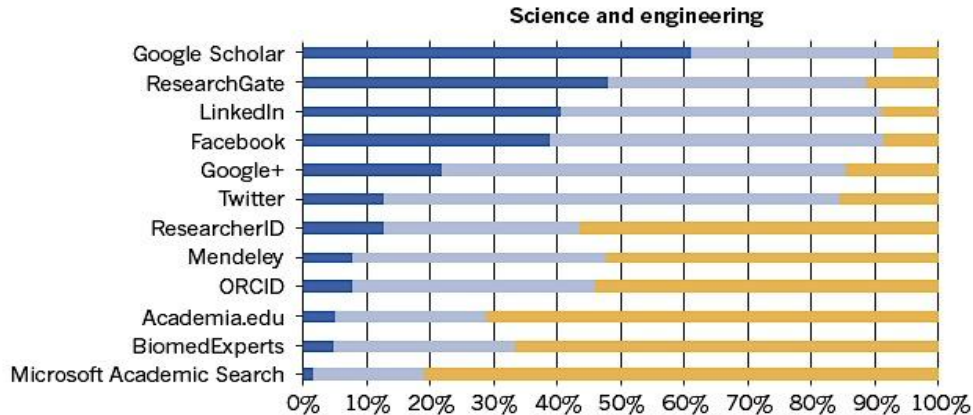


Segmented growth of the annual number of cited references 1650 - 2012

REMARKABLE REACH

More than 3,000 scientists and engineers told Nature about their awareness of various giant social networks and research-profiling sites. Just under half said that they visit ResearchGate regularly. Another 480 respondents in the humanities, arts and social sciences were less keen on ResearchGate.

- I am aware of this site and visit regularly
- I am aware of this site but do not visit regularly
- I am not aware of this site

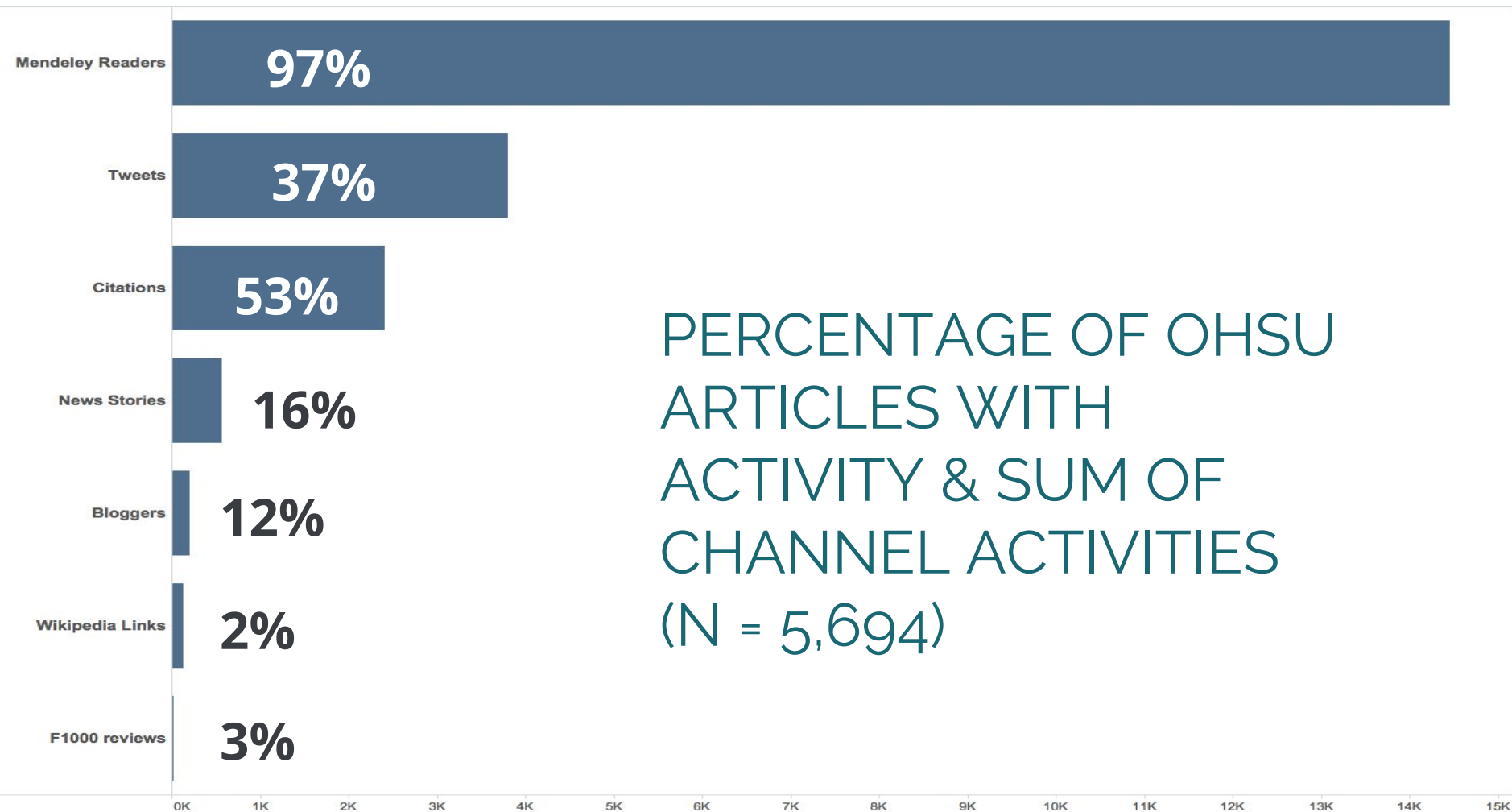


Subject	Rho (all)	N (all)	Rho (part)	N (part)	Rho (all -s)	Rho (part -s)
Gastroenterology	0.7281	10,000	0.6689	8,221 (82%)	0.7159	0.6550
Genetics	0.7306	7,006	0.7102	6,711 (96%)	0.7200	0.6988
Geriatrics	0.7485	5,342	0.6945	4,709 (88%)	0.7430	0.6874
Health Informatics	0.5236	3,835	0.5376	3,734 (97%)	0.5195	0.5333
Health Policy	0.7270	8,147	0.6598	6,382 (78%)	0.7232	0.6546
Hematology	0.7460	10,000	0.7142	9,278 (93%)	0.7392	0.7070
Hepatology	0.7034	4,482	0.6977	4,208 (94%)	0.6895	0.6821
Histology	0.6477	4,100	0.5953	3,600 (88%)	0.6436	0.5916

Science and medicine **coverage generally high**

Articles have **more Mendeley readers than citations in the first year** after publication

Strong correlations between Mendeley readers & citations
for almost all 45 Scopus medical subject areas.



REFERENCE SITES
POST-PEER REVIEW
ANNOTATION
DISCUSSION



UPTAKE
ENGAGEMENT
ENDORSEMENT
REACH

ENSURE ACCESS TO & DISCOVERY OF THE BEST & MOST RELEVANT CONTENT

1.589

1.589

1.589

1.589

1.588

1.588

1.588

1.588

0 RESULTS FOR OHSU

Suggestions:

- Check your spelling or try fewer keywords.
- Try your search in "OHSU + NW Academic Libraries (Summit)" instead of "OHSU" by using the dropdown arrow next to the search button above.
- Try your search in [Other Portland Academic Health Science Libraries](#).
- Or make your request via [ILL/Document Delivery Services](#).
- [Get Help!](#)

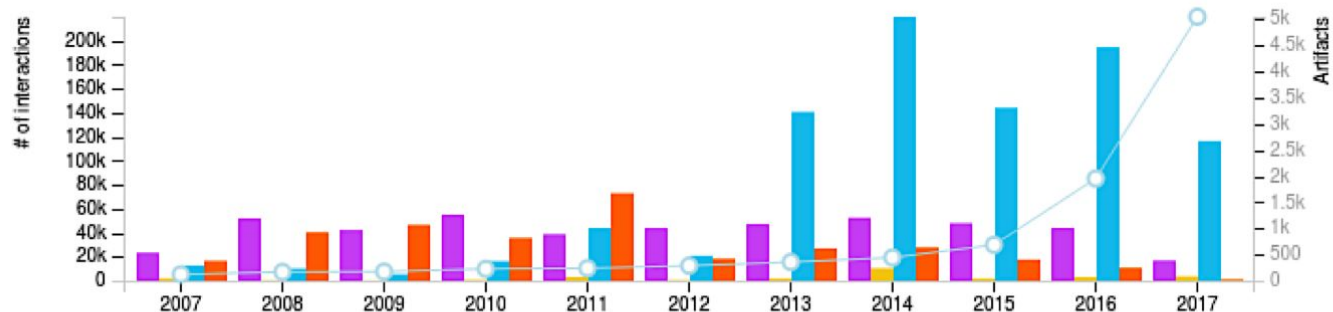
Can't find what you're looking for? Try searching WorldCat for "[International Journal Of Occupational Medicine & Environmental Health](#)"

















“TO PREPARE A PUBLIC HEALTH WORKFORCE, CREATE NEW KNOWLEDGE, ADDRESS SOCIAL DETERMINANTS & LEAD IN THE IMPLEMENTATION OF NEW APPROACHES AND POLICIES TO IMPROVE THE HEALTH OF POPULATIONS.”

Metrics by publication year



	Captures	Mentions	Social Media	Citations	Artifacts
2007	23234	1961	12669	16582	120
2008	51724	357	10005	40365	167
2009	42193	198	5259	46466	173
2010	54974	648	16295	35560	225
2011	38769	3148	43918	72839	238
2012	43822	481	20689	18305	286
2013	47270	1864	140586	26856	356
2014	52442	10288	219931	27744	442
2015	47904	1823	144059	17571	686
2016	44013	3008	194500	10652	1953
2017	16843	3661	116430	989	5047

Articles	Score			Articles in past 1y	Journal
	1y Total	Total	Median		
3	1,023	1,023	449.25		Medicina del lavoro
574	44k	55k	23.13		MMWR: Morbidity & Mortality Weekly Report
1	18	41	18.35		Cochrane database of systematic reviews
228	4,122	6,898	12.9		Palliative Medicine
358	11k	17k	12.78		The Lancet Global Health
3	66	246	11		Frontiers in Public Health
12	144	410	9.63		Journal of Environmental Health
18	250	343	9.63		International Journal of Occupational Medicine & Environmental Health (Instytut Medycyny Pracy im. Jerzego Nofera)
219	5,787	10k	9.1		Preventing Chronic Disease: Public Health Research, Practice and Policy
5	67	69	9		Medycyna Pracy
80	1,994	2,508	9		Antimicrobial Resistance and Infection Control
76	904	1,074	9		Health (1949-4998)



The long-term health plan and disability cost benefit of obstructive sleep apnea treatment in a commercial motor vehicle driver population. *Journal of Occupational & Environmental Medicine*

Abstract [...]

Public Health And Health Services

Nursing



Differences in the carcinogenic evaluation of glyphosate between the International Agency for Research on Cancer (IARC) and the European Food Safety Authority (EFSA) *Journal of Epidemiology and Community Health* (1978)

Public Health And Health Services

Human Geography



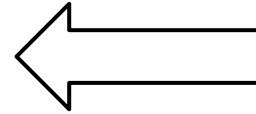
A Positive Association found between Autism Prevalence and Childhood Vaccination uptake across the U.S. Population *Journal of Toxicology and Environmental Health, Part A*

Abstract [...]

Chemical Sciences

Environmental Sciences

Medical And Health Sciences



**ATTENTION & DISCOURSE
IS NOT A MEASURE OF
QUALITY**



Explaining low mortality among US immigrants relative to native-born Americans: the role of smoking *International Journal of Epidemiology*

Abstract [...]

Statistics

Public Health And Health Services

Year ▼	Title	Type	All / Citations / Clinical Citations		
			PubMed Guidelines ⬆	DynaMed Plus Topics ⬆	NICE ⬆
2017	Vitamin D supplementation to prevent acute respiratory tract infections: systematic review and meta-analysis of individual participant data.	Article		2	
2017	Cancer Statistics, 2017.	Article		3	
2017	Efficacy and effectiveness of screen and treat policies in prevention of type 2 diabetes: systematic review and meta-analysis of screening tests and interventions.	Article		2	
2017	Removal of all ovarian tissue versus conserving ovarian tissue at time of hysterectomy in premenopausal patients with benign disease: study using routine data and data linkage.	Article		1	
2017	Low-Dose Aspirin for Primary Prevention of Cardiovascular Events in Patients With Type 2 Diabetes Mellitus: 10-Year Follow-Up of a Randomized Controlled Trial.	Article		1	
2017	Randomized Comparison of Allogeneic Versus Autologous Mesenchymal Stem Cells for Nonischemic Dilated Cardiomyopathy: POSEIDON-DCM Trial.	Article		1	
2017	Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016.	Article		7	
2017	Atosiban versus fenoterol as a uterine relaxant for external cephalic version: randomised controlled trial.	Article		1	
2017	Comparison of risk scoring systems for patients presenting with upper gastrointestinal bleeding: international multicentre prospective study.	Article		1	
2017	Do vitamin D supplements help prevent respiratory tract infections?	Article		2	
2017	Post-Approval U.S. Experience With Left Atrial Appendage Closure for Stroke Prevention in Atrial Fibrillation.	Article		3	
2017	Prevalence and characteristics of users of pre-exposure prophylaxis (PrEP) among men who have sex with men, San Francisco, 2014 in a cross-sectional survey: implications for disparities.	Article		1	
2017	External validation and comparison of three prediction tools for risk of osteoporotic fractures using data from population based electronic health records: retrospective cohort study.	Article		2	
2017	Risk of heart failure after community acquired pneumonia: prospective controlled study with 10 years of follow-up.	Article		1	
2017	Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016.	Article		1	
2017	Epidemiology of Human Anthrax in China, 1955-2014.	Article		1	
2017	EULAR recommendations for women's health and the management of family planning, assisted reproduction, pregnancy and menopause in patients with systemic lupus erythematosus and/or antiphospholipid syndrome.	Article		1	

SOMETIMES IT HURTS

MY BRAIN (AND LIBRARY) ON ALTMETRICS

MORE RESEARCH



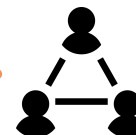
MORE PLANNING &
INTEGRATION



MORE RESOURCE
STABILITY



NOVEL EVIDENCE
FOR AN ESTABLISHED
CASE



PARTNERSHIP
OPPORTUNITIES



SCHOLARSHIP AS A
CONVERSATION

Thank you!

Stacy Konkiel
stacy@altmetric.com

Nickoal Eichmann-Kalwara
nickoal.eichmann@colorado.edu

Robin Champieux
champieu@ohsu.edu

