How Readers Discover Content in Scholarly Publications

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Journals Navigation

Library Web Pages -> Library Link Server

Researcher <-> A&I <-> Aggregator

Student <-> Search Engine <-> Email Alert

Librarian <-> Publisher Site <-> Aggregated Article

Peer Link

http://sic.pub/discover
Survey on Reader Navigation

- Mission: Gain a measure of the relative importance of all of these channels to inform publishers and information buyers
- Survey of Readers following on from 2005, 2008, 2012 studies
- Over 40,000 respondents globally
- 18 months planning, execution, analysis
Supporters

http://sic.pub/discover
Limitations

- It’s a survey
- Survey was only in English
- Survey used invitations from our supporters – not necessarily completely representative sample
- Due to data privacy/data protection rules, all those invited to the survey via email will be quite highly engaged with the supporter (“opted in”)
Headlines – lots more in the report

- A&Is show decline in search importance, but still #1 in aggregate in STEM across all sectors
- Academic researchers rate library discovery as high as A&Is (in high-income countries)
- Academic researchers rate Google Scholar #1
- Over half of article downloads are free versions – PubMed Central a major factor
- ToC alerts in decline
- Increased role for social media in discovery
SELECTED HEADLINES
Academic researchers rate academic search engines #1

When you need to do a search for articles on a specific subject, where on the web do you start that search? 2015 vs 2012 comparison. Academic sector in high income areas for Academic Researcher
Wait!

- Every publisher tells you that they get way more referrals from Google than Google Scholar!
  - Analytics typically measure last referrer, and have not tracked where navigation started

![Diagram showing referral sources: Google Scholar (52%), Google (48%), Library Link Servers (40%), Publisher’s Article (48%), 40% for 1000 link servers.](http://sic.pub/discover)
But not everywhere in the world

If you use search engines to find journal articles, how often do you use each of the following? Variations by country in academic sector.

- United States, n=2606, ±0.9% at 95% confidence
- Iran, n=621, ±1.9% at 95% confidence
- Malaysia, n=240, ±2.9% at 95% confidence
- Nigeria, n=264, ±3.3% at 95% confidence
- Russia, n=233, ±4.3% at 95% confidence

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Librarians are different

When you need to do a search for articles on a specific subject, where on the web do you start that search? Variations by job role in high income countries

- Bibliographic database (A&I)
- Library web pages
- Journal aggregation
- Social or professional networking site
- Publisher’s web site
- By searching journal alerts
- The journal’s homepage
- A general web search engine
- An academic search engine
- Society web page

- Educator, Teacher, n=2534, ±0.08 at 95% confidence
- Lecturer, n=1193, ±0.13 at 95% confidence
- Librarian, Information Manager, n=780, ±0.17 at 95% confidence
- Researcher, n=1345, ±0.13 at 95% confidence
- Masters Student, n=1251, ±0.12 at 95% confidence
Largest sector difference is medical

When you need to do a search for articles on a specific subject, where on the web do you start that search? Variations by sector

Relative Score

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- Academic, n=18055, ±0.03 at 95% confidence
- Medical, n=4037, ±0.07 at 95% confidence
- Government, n=2689, ±0.08 at 95% confidence
- Corporate, n=2161, ±0.09 at 95% confidence
- Charity_ngo, n=706, ±0.16 at 95% confidence
Country differences are significant

When you need to do a search for articles on a specific subject, where on the web do you start that search? Variations by country in academia.
Subject variations

When you need to do a search for articles on a specific subject, where on the web do you start that search? Variations by subject in high income countries

- Bibliographic database (A&I)
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Humanities, n=1571, ±0.10 at 95% confidence
Medical Subjects, n=2401, ±0.10 at 95% confidence
Social and Political Science, n=1584, ±0.11 at 95% confidence
Life Sciences, n=1131, ±0.13 at 95% confidence
Engineering and Technology, n=784, ±0.15 at 95% confidence
Over half of downloads are free!

What proportion of the journal articles that you read do you access from each of the following resources? Variations by country in medical subjects.

- Italy, n=148, ±2.8% at 95% confidence
- Germany, n=49, ±4.5% at 95% confidence
- France, n=125, ±2.9% at 95% confidence
- United Kingdom, n=293, ±2.0% at 95% confidence
- United States, n=912, ±1.3% at 95% confidence

[Graph showing proportions of free resources and publisher or aggregator.]
With some variation by country

What proportion of the journal articles that you read do you access from each of the following resources? Variations by country in medical subjects.

- Nigeria, n=51, ±4.4% at 95% confidence
- Indonesia, n=78, ±3.4% at 95% confidence
- Iran, n=93, ±3.1% at 95% confidence
- India, n=227, ±2.1% at 95% confidence
- United States, n=912, ±1.3% at 95% confidence

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Free Resources Publisher or Aggregator
PubMed Central effect

What proportion of the journal articles that you read do you access from each of the following resources? Variations by sector in high income countries

The publisher website, journal website, full-text aggregation or journal collection

A free subject repository

A university’s institutional repository

Researchgate, Mendeley, or other scientific social networking site

A copy emailed by the author or colleague

Academic, n=8248, ±0.4% at 95% confidence

Government, n=1206, ±1.1% at 95% confidence

Corporate, n=1149, ±1.2% at 95% confidence

Medical, n=2100, ±0.8% at 95% confidence

International_Organisation, n=325, ±2.1% at 95% confidence
Concluding observations

- Many free discovery resources, like PubMed and Google Scholar, are used less in poorer countries – awareness?
- The changing nature of Google Scholar will have dramatic impact on free/paid
- Librarians aren’t convincing their patrons about search methodology
Thank you

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