2016 과편협 preconference workshop

Journal Metrics, Altmetrics의 현재와 미래

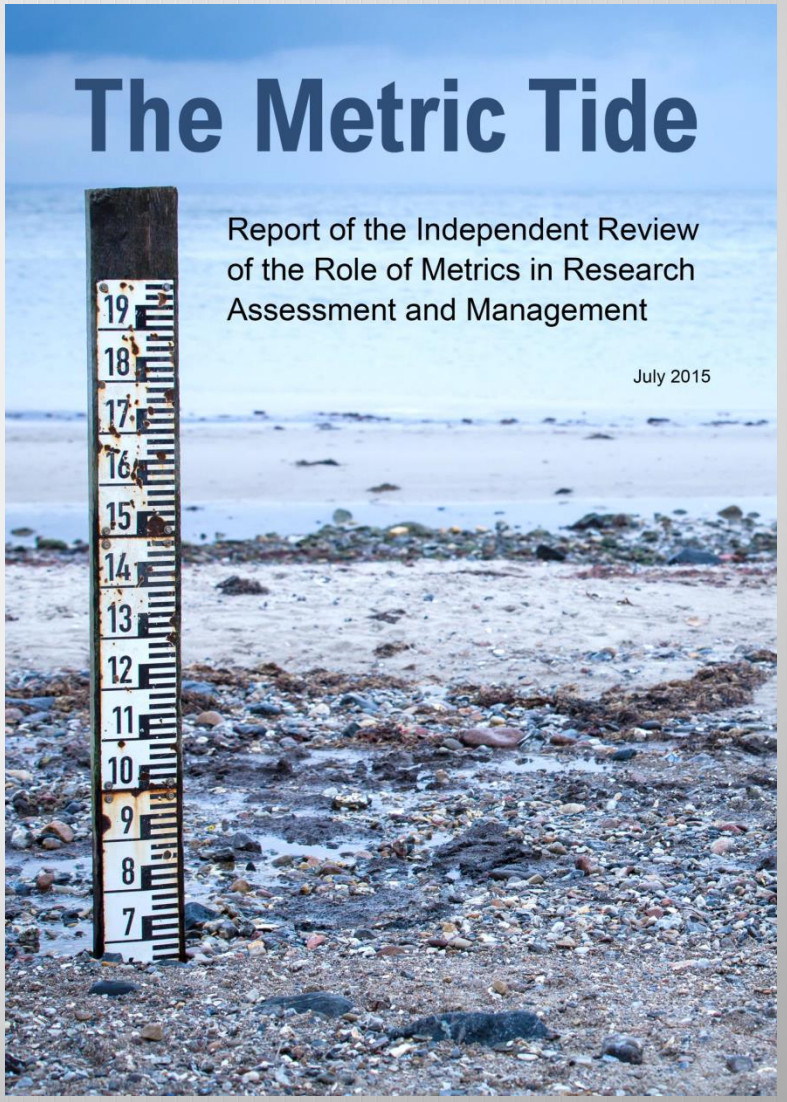
KISTI
최선희

ORCID ID
orcid.org/0000-0002-7275-9062

2016. 01. 21

이해 당사자들

- Funders
- Researchers
- Publishers, Learned societies
- Users
- 학술지 관련자가 왜 metrics를 알아야 하는가?
- Research Impact
- Research Assessment
- Citable Environments
- Trackable Environments
- 영국 HEFCE



Research Impact / Total Impact

Impact

Assessment

Citation Analysis

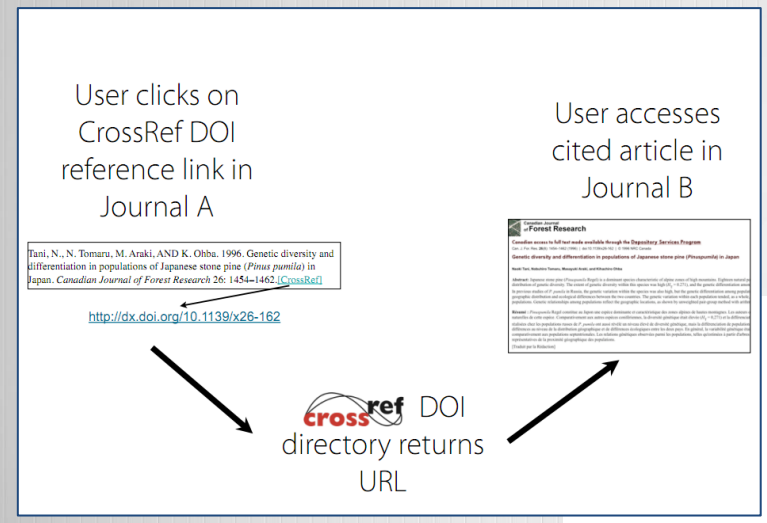
DOI
Cited-by-linking

Various Altmetrics

-DOI enables Citable environments by Geoffrey Bilder
-DOI enables Altmetrics by PLOS ALM Workshop

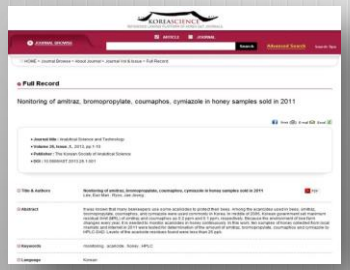
Ways of Raising Visibility

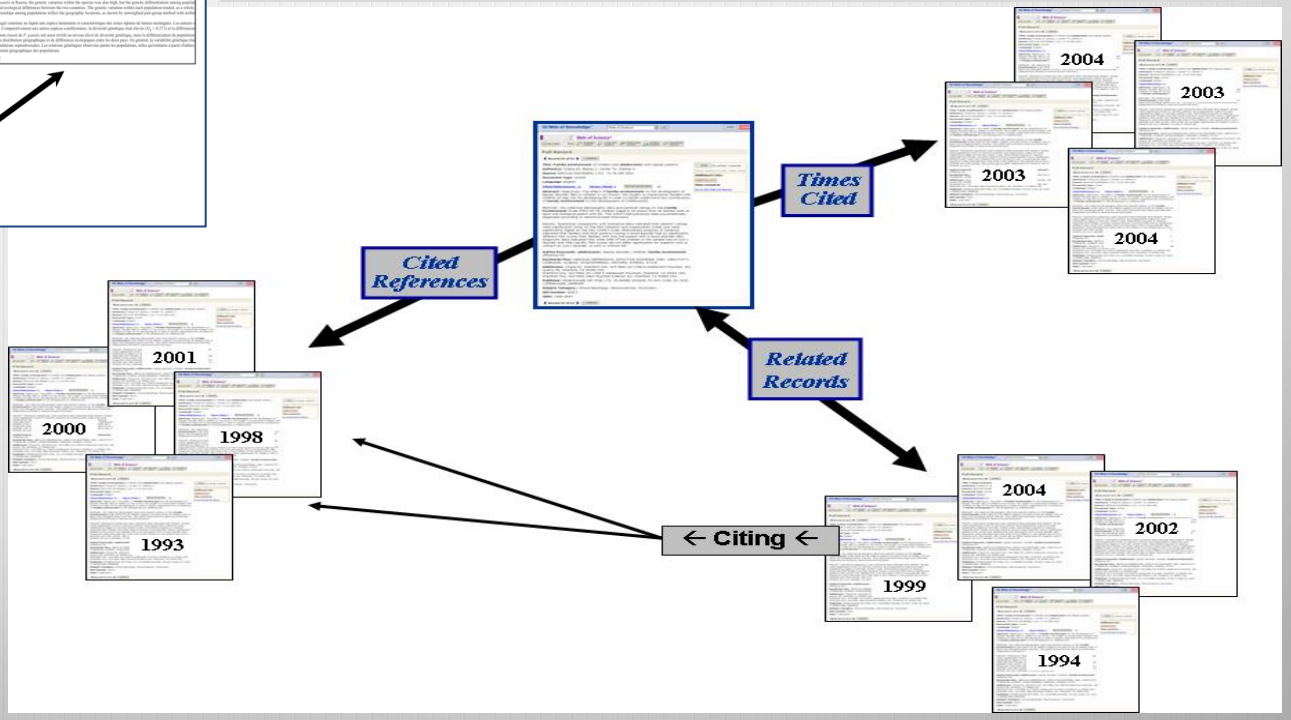
- DOI(Digital Object Identifier)



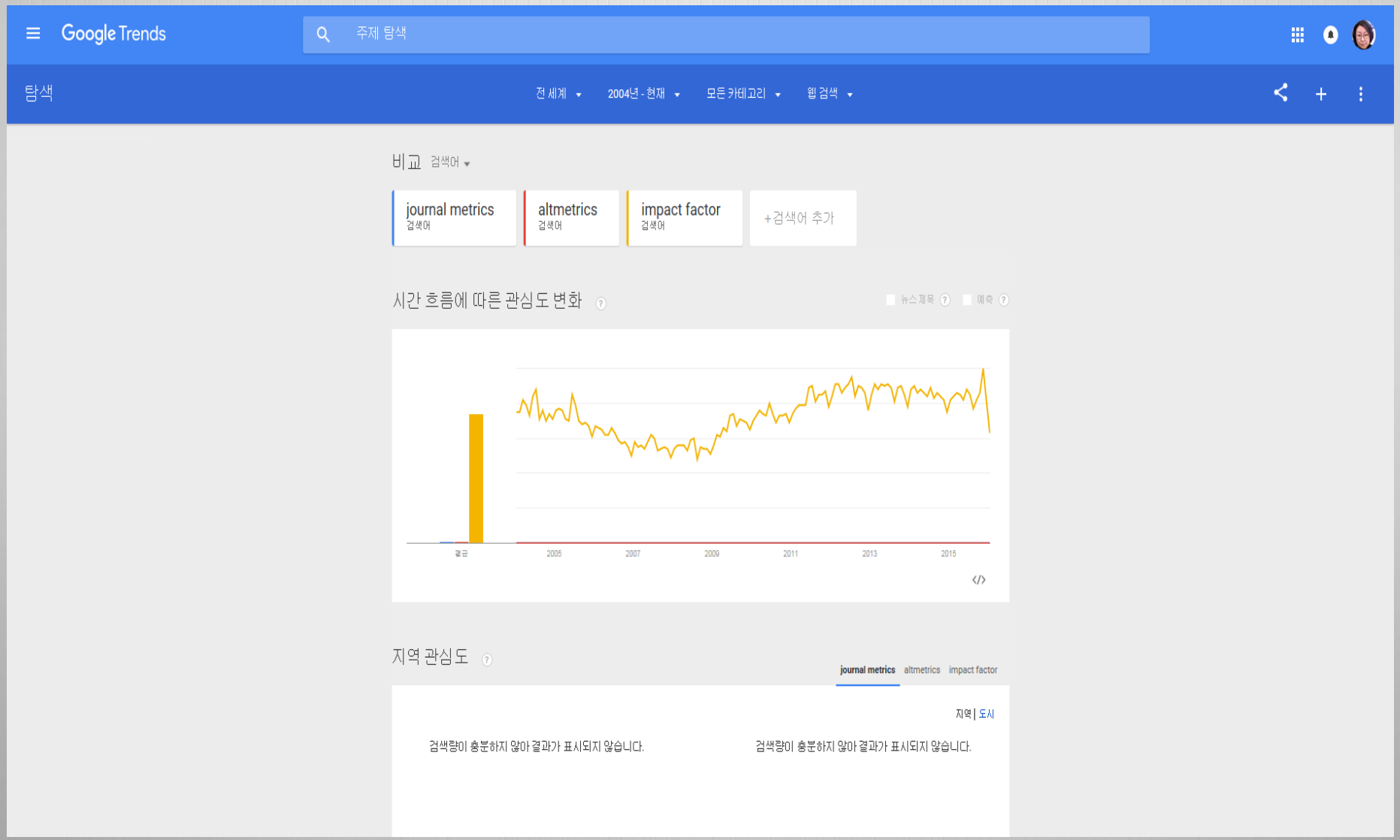
CrossRef's cited-by linking service enables an author to know who is citing his or her article, to follow references and to cite effectively by linking references of journal articles.

(Pentz, E. 2001. Brief communication: reference liking with CrossRef. Interlending & Document Supply, 29(1), 20-23.).

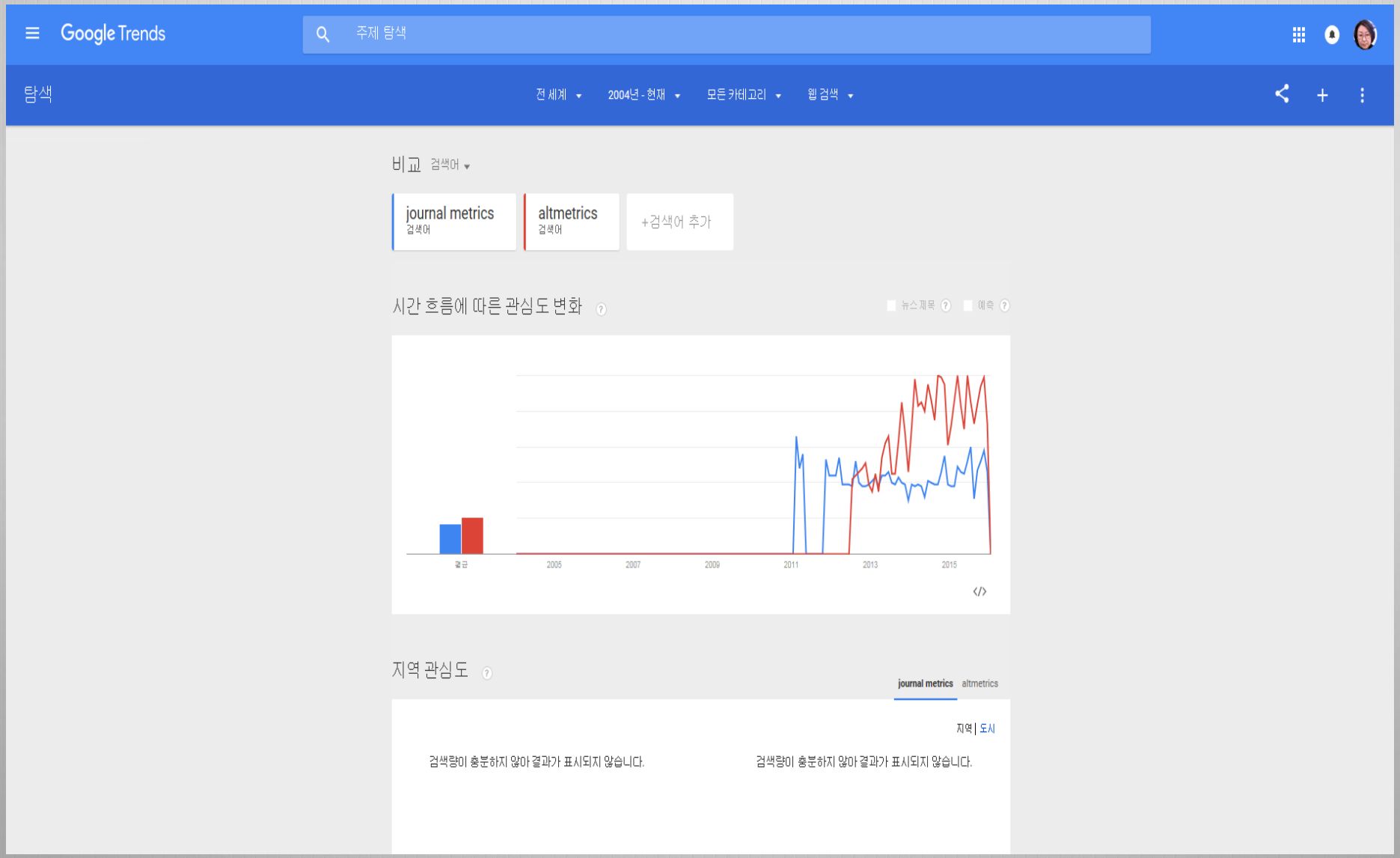




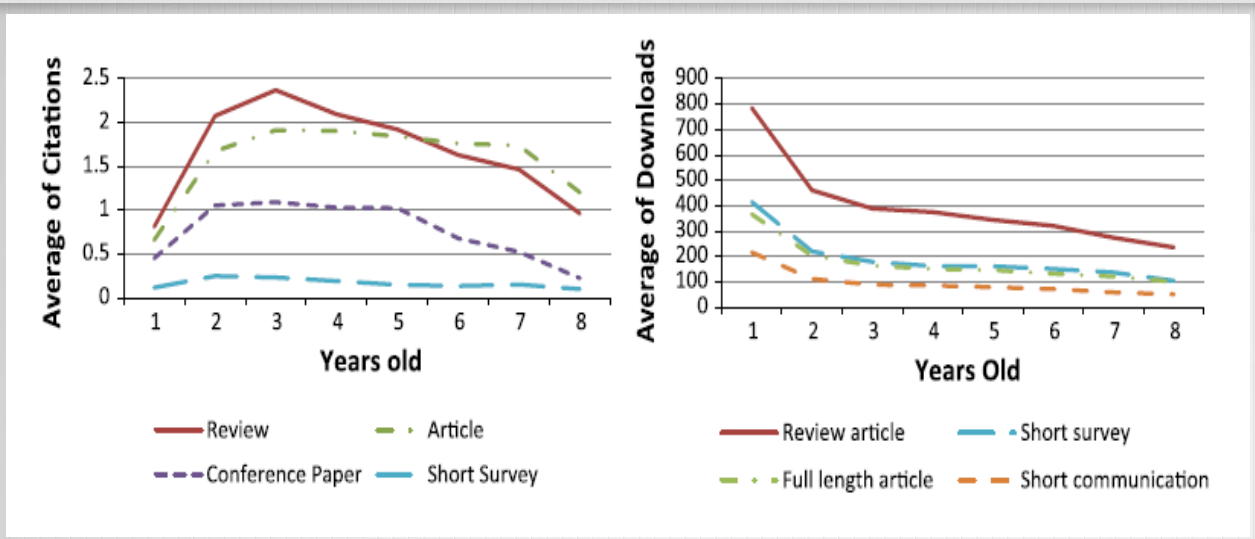
Journal Metrics, Usage Metrics, Altmetrics

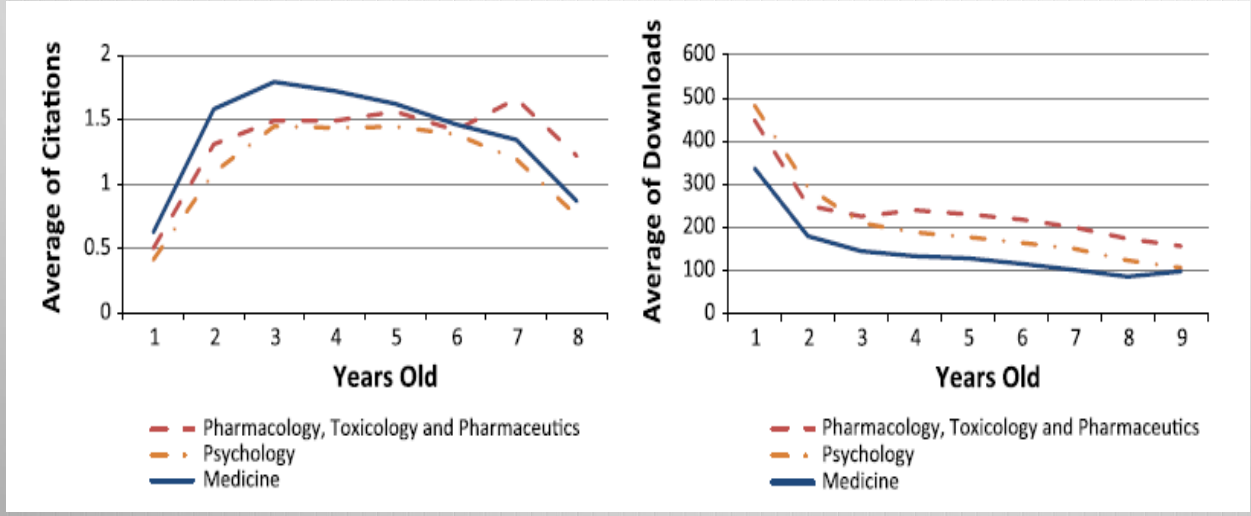


Journal Metrics, Usage Metrics, Altmetrics



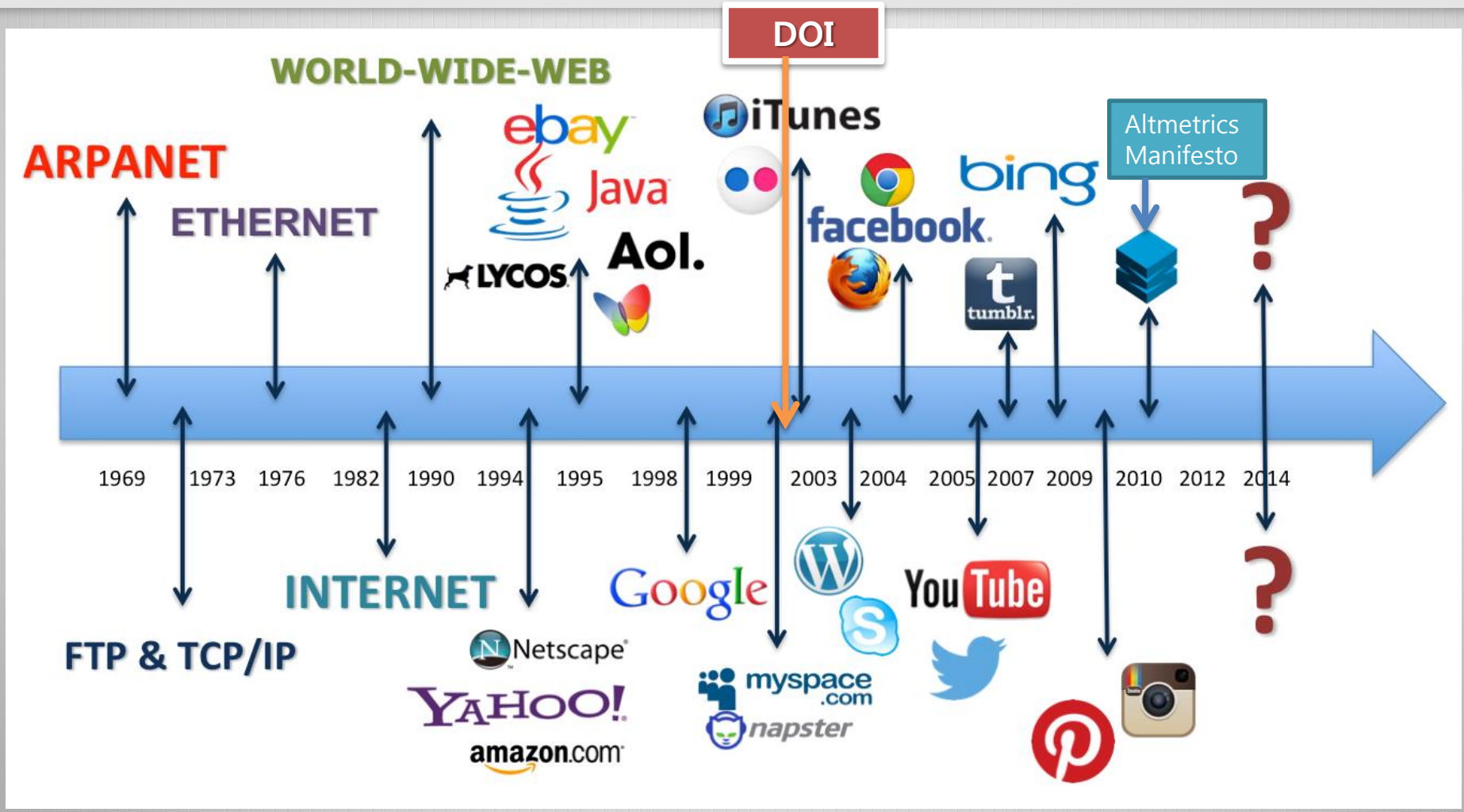
Journal Metrics, Usage Metrics, Altmetrics





Guerrero-Bote, V. P., & Moya-Anegón, F. , Scientometrics November 2014, Volume 101, Issue 2, pp 1043-1065

Journal Metrics, Usage Metrics, Altmetrics



http://malonemediagroup.com/history-of-the-internet-timeline-an-ever-evolving-digital-world/ 을 변형

알트메트릭스 메니페스토 (http://altmetrics.org/manifesto/)

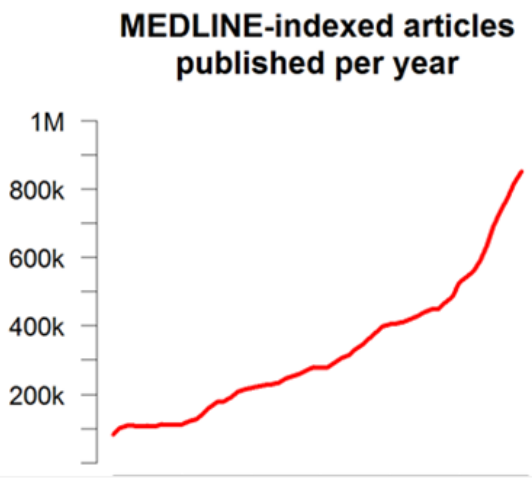
altmetrics

altmetrics: a manifesto

NO ONE CAN READ EVERYTHING. We rely on filters to make sense of the scholarly literature, but the narrow, traditional filters are being swamped. However, the growth of new, online scholarly tools allows us to make new filters; these altmetrics reflect the broad, rapid impact of scholarship in this burgeoning ecosystem. We call for more tools and research based on altmetrics.

As the volume of academic literature explodes, scholars rely on filters to select the most relevant and significant sources from the rest. Unfortunately, scholarship's three main filters for importance are failing:

- Peer-review has served scholarship well, but is beginning to show its age. It is slow, encourages conventionality, and fails to hold reviewers accountable. Moreover, given that most papers are eventually published somewhere, peer-review fails to limit



about

What's altmetrics?

Tools

Media

Press

Tweet #altmetrics

call for papers

The Altmetrics Collection

A *PLOS One* Collection

workshop

altmetrics14 workshop

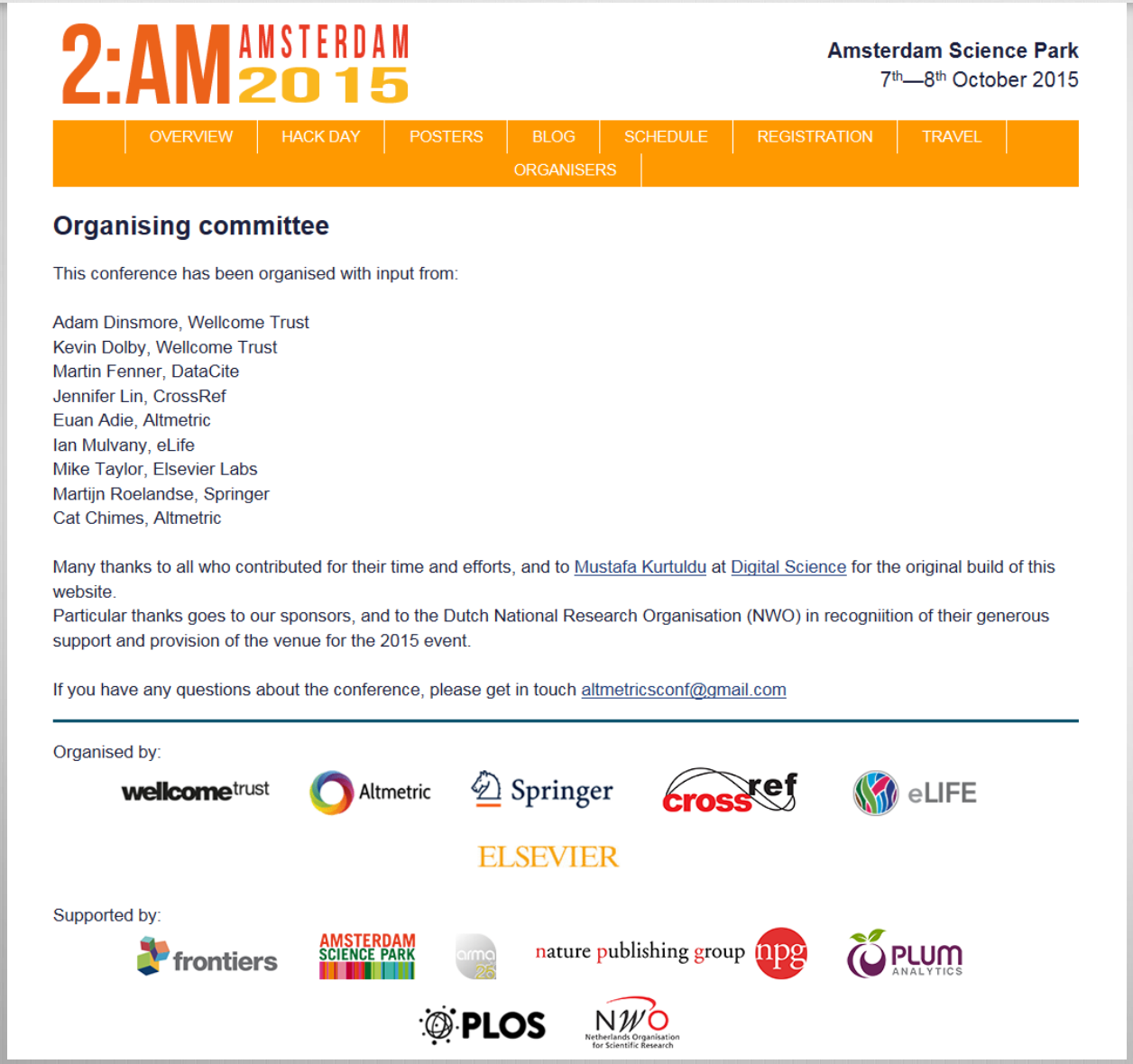
An *ACM Web Science Conference 2014* Workshop

주요 Events

past events

- 4-6 December 2014: ALM Workshop 2014 (San Francisco)
- 25-26 September 2014: 1st Altmetrics Conference (London)
- 23 June 2014: **altmetrics14 workshop** (ACM Web Science Conference 2014)
- 11-12 April 2013: Rigour and Openness in 21st Century Science (Oxford)
- 19-20 March 2013: Beyond the PDF 2 (Amsterdam)
- 15 February 2013: A New Social (Media) Contract for Science (AAAS '13, Boston)
- 4 December 2012: Future of Academic Impacts #LSEimpact (London)
- 1-3 November 2012: ALM Workshop and Hackathon #alm12 (San Francisco)
- 10-12 October 2012: Occupy Impact (Montreal)
- 21 June 2012: **altmetrics12 workshop** (ACM Web Science Conference 2012)

주요 Events



2:AM AMSTERDAM 2015

Amsterdam Science Park
7th—8th October 2015

OVERVIEW | HACK DAY | POSTERS | BLOG | SCHEDULE | REGISTRATION | TRAVEL | ORGANISERS

Organising committee

This conference has been organised with input from:

Adam Dinsmore, Wellcome Trust
Kevin Dolby, Wellcome Trust
Martin Fenner, DataCite
Jennifer Lin, CrossRef
Euan Adie, Altmetric
Ian Mulvany, eLife
Mike Taylor, Elsevier Labs
Martijn Roelandse, Springer
Cat Chimes, Altmetric

Many thanks to all who contributed for their time and efforts, and to Mustafa Kurtuldu at Digital Science for the original build of this website.
Particular thanks goes to our sponsors, and to the Dutch National Research Organisation (NWO) in recogniition of their generous support and provision of the venue for the 2015 event.

If you have any questions about the conference, please get in touch altmetricsconf@gmail.com

Organised by:

wellcome trust · Altmetric · Springer · crossref · eLIFE · ELSEVIER

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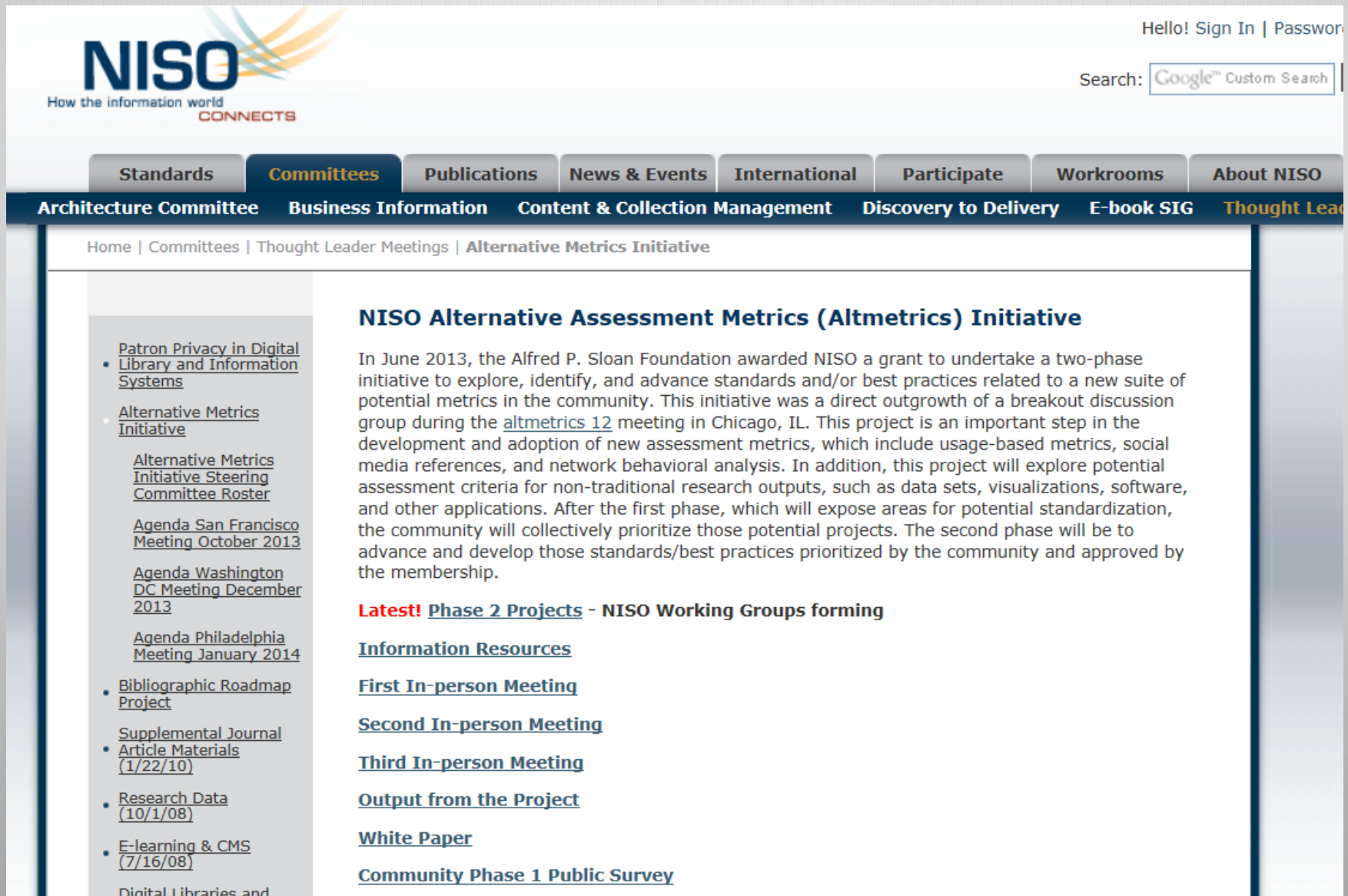
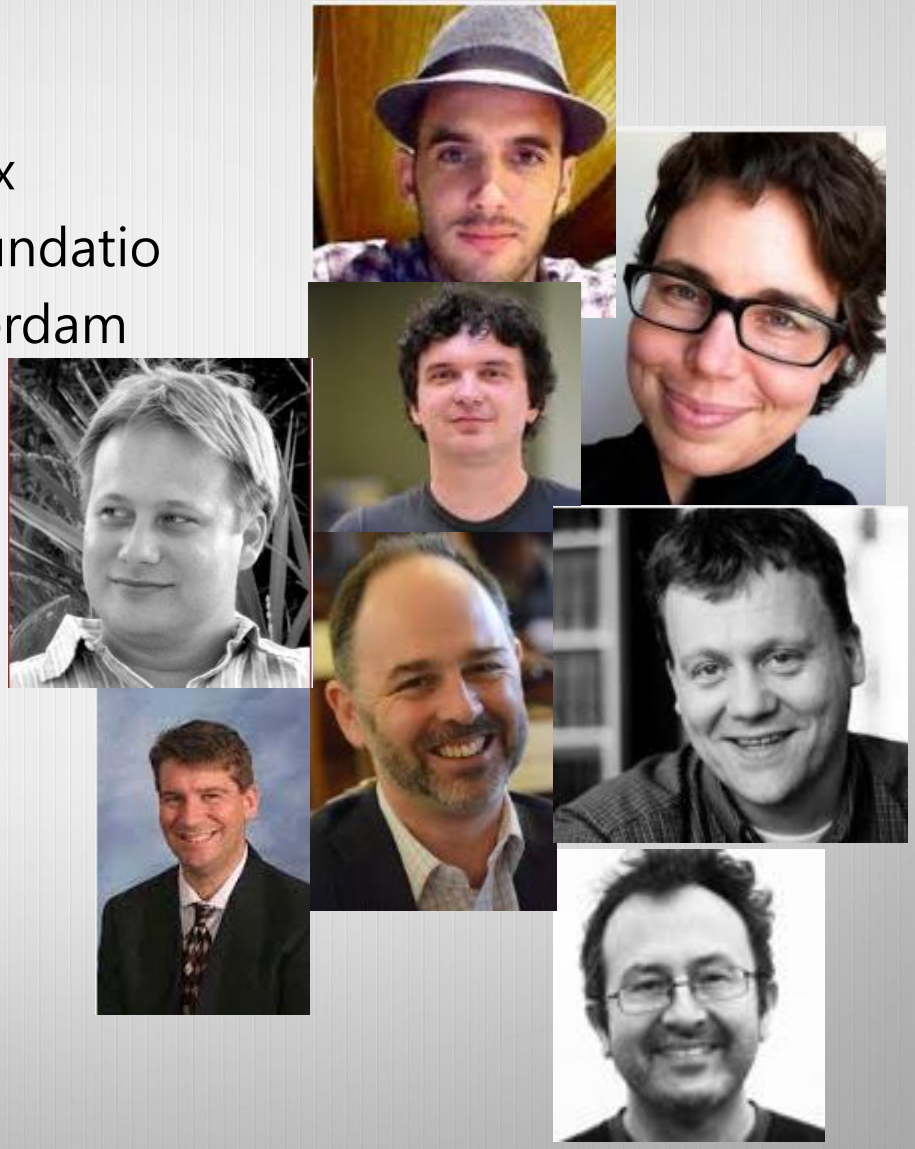
주요 Projects


NISO
How the information world CONNECTS
Hello! Sign In | Passwor
Search:
Google™ Custom Search
Standards
Committees
Publications
News & Events
International
Participate
Workrooms
About NISO
Architecture Committee
Business Information
Content & Collection Management
Discovery to Delivery
E-book SIG
Thought Lead
Home | Committees | Thought Leader Meetings | Alternative Metrics Initiative
Patron Privacy in Digital Library and Information Systems
Alternative Metrics Initiative
Alternative Metrics Initiative Steering Committee Roster
Agenda San Francisco Meeting October 2013
Agenda Washington DC Meeting December 2013
Agenda Philadelphia Meeting January 2014
Bibliographic Roadmap Project
Supplemental Journal Article Materials (1/22/10)
Research Data (10/1/08)
E-learning & CMS (7/16/08)
NISO Alternative Assessment Metrics (Altmetrics) Initiative
In June 2013, the Alfred P. Sloan Foundation awarded NISO a grant to undertake a two-phase initiative to explore, identify, and advance standards and/or best practices related to a new suite of potential metrics in the community. This initiative was a direct outgrowth of a breakout discussion group during the altmetrics 12 meeting in Chicago, IL. This project is an important step in the development and adoption of new assessment metrics, which include usage-based metrics, social media references, and network behavioral analysis. In addition, this project will explore potential assessment criteria for non-traditional research outputs, such as data sets, visualizations, software, and other applications. After the first phase, which will expose areas for potential standardization, the community will collectively prioritize those potential projects. The second phase will be to advance and develop those standards/best practices prioritized by the community and approved by the membership.
Latest! Phase 2 Projects - NISO Working Groups forming
Information Resources
First In-person Meeting
Second In-person Meeting
Third In-person Meeting
Output from the Project
White Paper
Community Phase 1 Public Survey

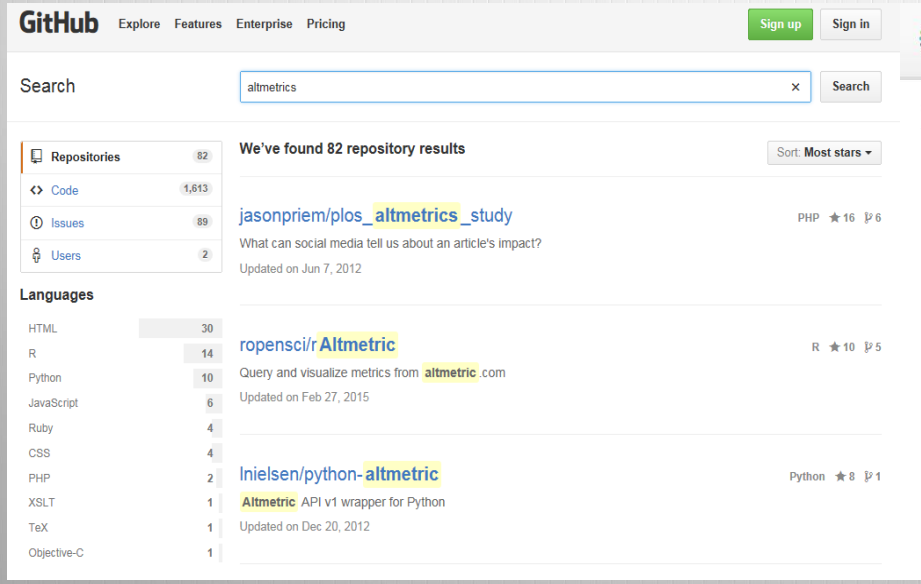
주요 인물

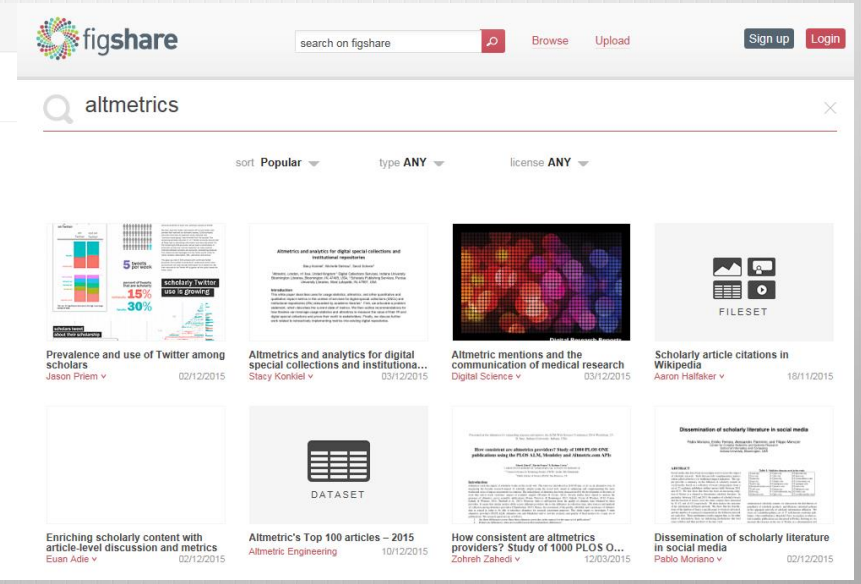
- Jason Priem, University of North Carolina-Chapel Hill
- Heather Piwowar, ResearchRemix
- Dario Taraborelli, Wikimedia Foundatio
- Paul Groth, VU University Amsterdam
- Cameron Neylon, Science and Technology Facilities Council
- Martin Fenner, DataCite
- Todd Carpenter, NISO
- Mike Taylor, Elsevier



Altmetrics

- 여기까지 봐서 Altmetrics는 2010년부터 현재까지 아직 완성되지 않고 발전 중
- Altmetrics 서비스는 중앙집중이 유리하다
- 그러나 개별 사이트에서도 열심히 적극적으로 수집하고 긁어와서 구현하는 만큼 효과를 볼 수 있다- 돈보다 열정이 필요함
- Github, figshare 등의 오픈 소스, API 및 알고리즘 공개됨
- 도서관과 밀접하다. 왜?





알트메트릭스란

- 학술연구성과물의 총체적인 영향력을 기존의 인용보다 다양하고 빠르고 즉각적으로 인지할 수 있도록 하는 것이 알트메트릭스의 영역이고 도구이다.
- 알트메트릭스가 캐치하고자 하는 활동들은 검색하고 읽고 다운받고 주석/코멘트/의견을 달고 남들에게 공유하고 추천하고 하는 일련의 활동을 그 매체와 활동기반이 되는 SNS 및 서비스 플랫폼으로부터 추적하고 기록하여 시각화하여 보여주는 것이다.
- SLA 2014에서 마이클 하빕(Michael Habib)은
- 알트메트릭스의 유형(classes)을
- 학술활동/코멘트(scholarly activity/commentary),
- 뉴스/매스미디어(news/mass media)
- 사회적활동(social activity)
- 재사용(reuse),
- 법적/거버넌스(legal/governance)로 구분

Altmetrics의 9 원칙

- Metrics should be used alongside, not as a replacement for, peer review and expert opinion
- Be clear on the question that is being asked
- Multiple metrics tell the most complete story
- Metrics should be as simple as possible
- No methodological black boxes
- Metrics should be agnostic
- Disciplinary differences and other factors must be taken into account
- Narratives help to interpret metrics(case studies, etc)
- Ownership and acceptance of metrics by communities
- Elsevier, Michael Habib, SLA2014

Advantages

- **Evidence** [**NOT PROOF**] of wider impacts of research
  - Educational usage (syllabus mentions, downloads?)
  - Societal interest or public engagement (e.g., high YouTube views, blog citations)
  - Scholarly impact (Google Books citations [& traditional citations])
- NB Low scores are **NOT EVIDENCE OF NO IMPACT** – impact can occur in many ways

Mike Thlwall & Kayvan Kousha, 2015 HEFCE metrics workshop

Disadvantages

- Easy to manipulate
  - No quality control
  - Users often anonymous (no trail of evidence to check)
  - Easy to pay someone to inflate scores
- Accidental manipulation
  - Viral tweets for articles with funny titles
  - Lecturers promoting their own works
- Reflect a small and biased proportion of the activity of interest

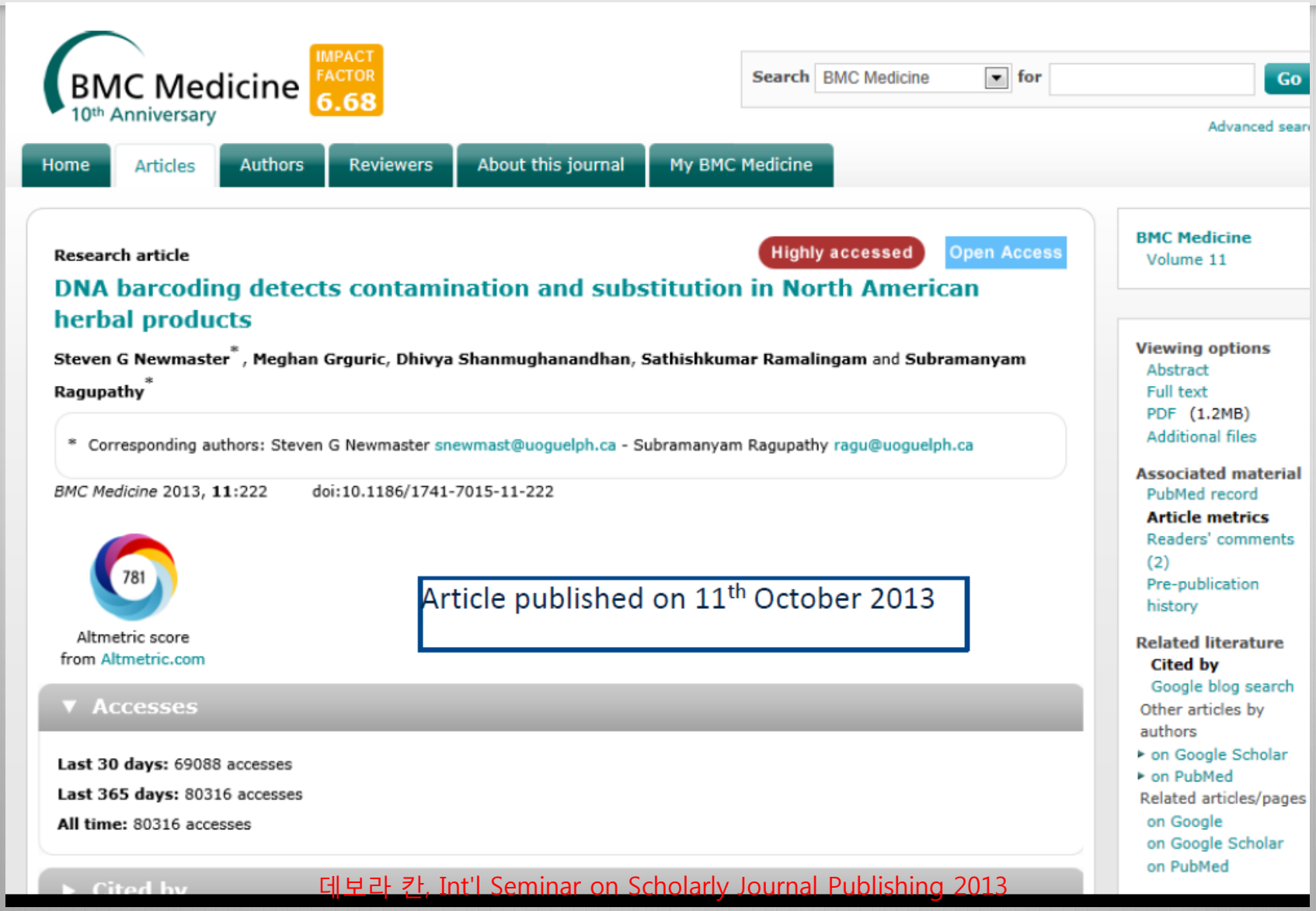
Mike Thlwall & Kayvan Kousha, 2015 HEFCE metrics workshop

주요 기관

- PLOS : Article-level metrics
- NISO
- Elsevier
- Altmetric.com
- PLUM Analytics
- Impactstory

주요 도구 : Altmetric.com

주요 도구 : Altmetric.com



주요 도구 : Altmetric.com

DNA barcoding detects contamination and substitution in North American herbal products

Twitter | Facebook | News | Blogs | Google+ | Reddit | Score | Demographics | Help

Score in context

Puts article in the top 5% of all articles ranked by attention

show more...

Mentioned by

- 395 tweeters
- 74 Facebook users
- 42 news outlets
- 12 science blogs
- 19 Google+ users
- 2 Redditors

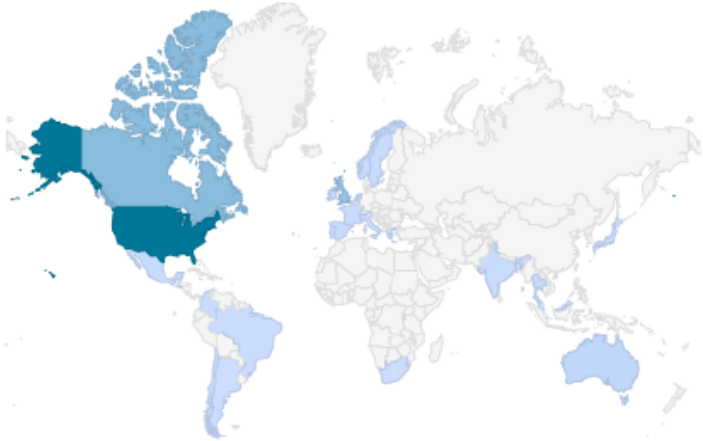
Readers on

- 6 Mendeley
- 1 CiteULike

Track this article

- Get email updates when this article is shared

Geographical breakdown



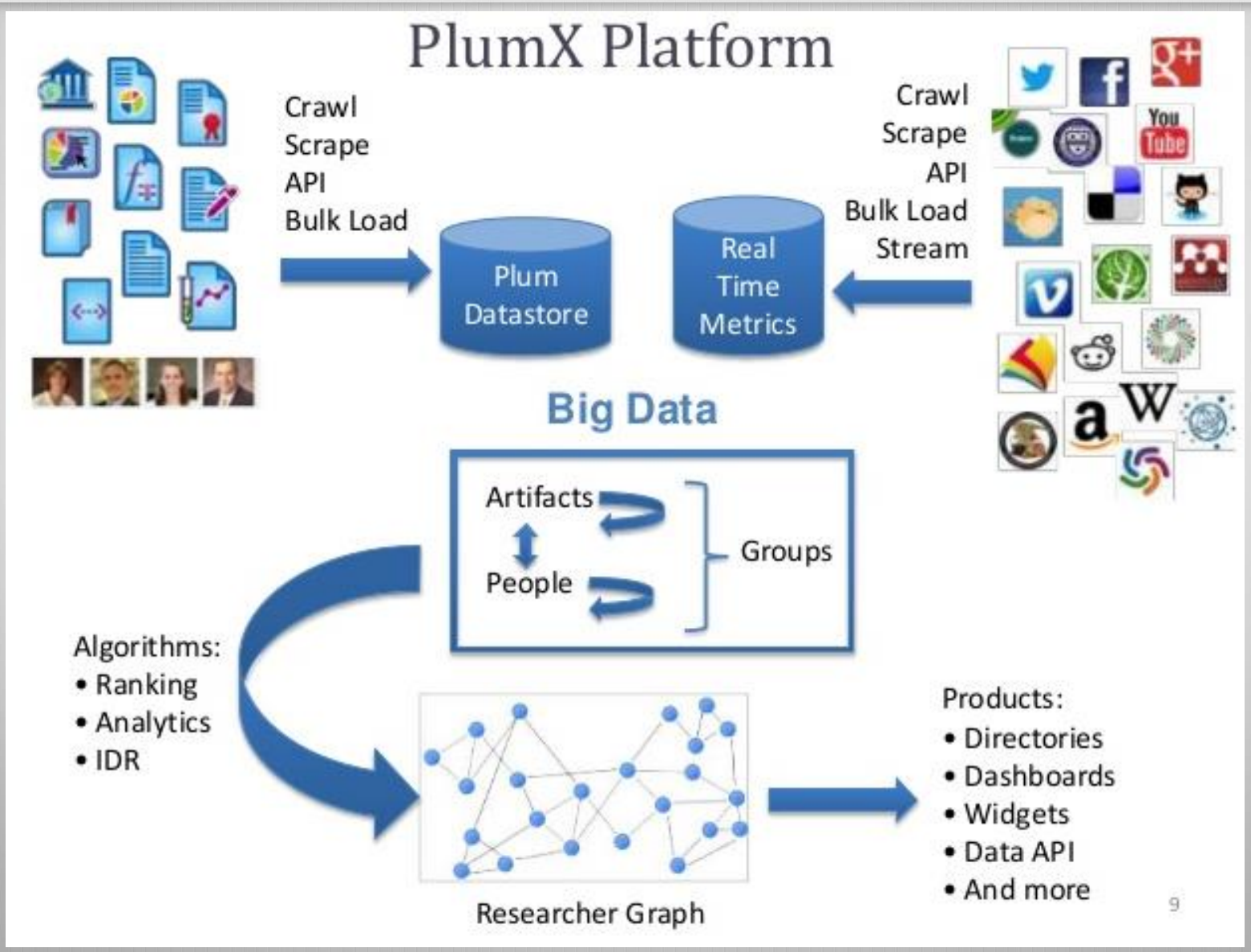
#	Country	As %
1	US	22%
2	CA	7%
3	GB	5%
4	AU	1%
5	MX	<1%
6	NO	<1%
7	IE	<1%
8	FR	<1%
9	IN	<1%
–	Other	60%

Tweeter demographics

Typo	Count	As %
Members of the public	276	69%
Scientists	52	13%
Practitioners (doctors, other healthcare professionals)	42	10%
Science communicators (journalists, bloggers, editors)	25	6%

데보라 칸, Int'l Seminar on Scholarly Journal Publishing 2013

주요 도구 : Plum Analytics



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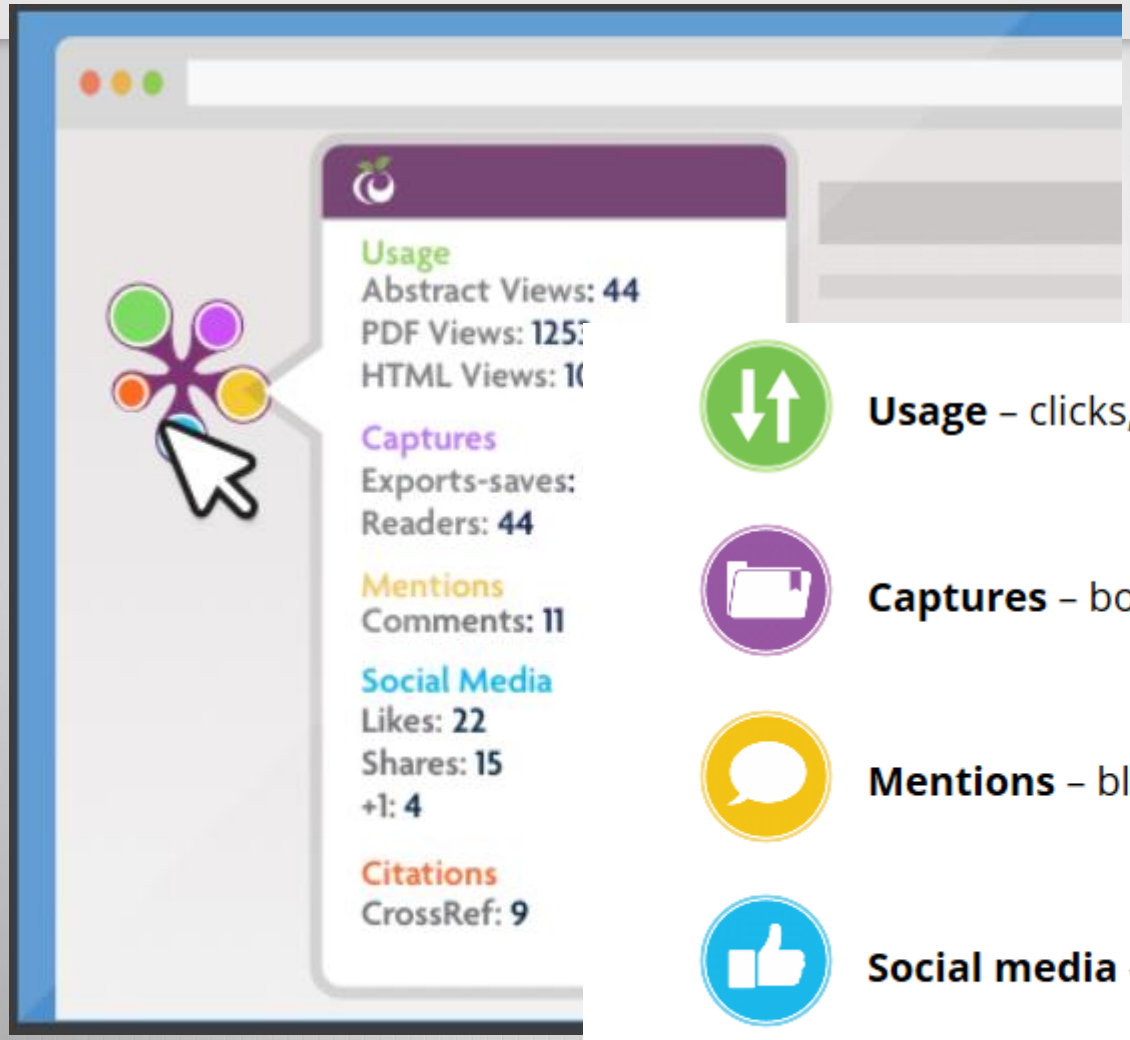


Usage – clicks, downloads, views, library holdings, vi

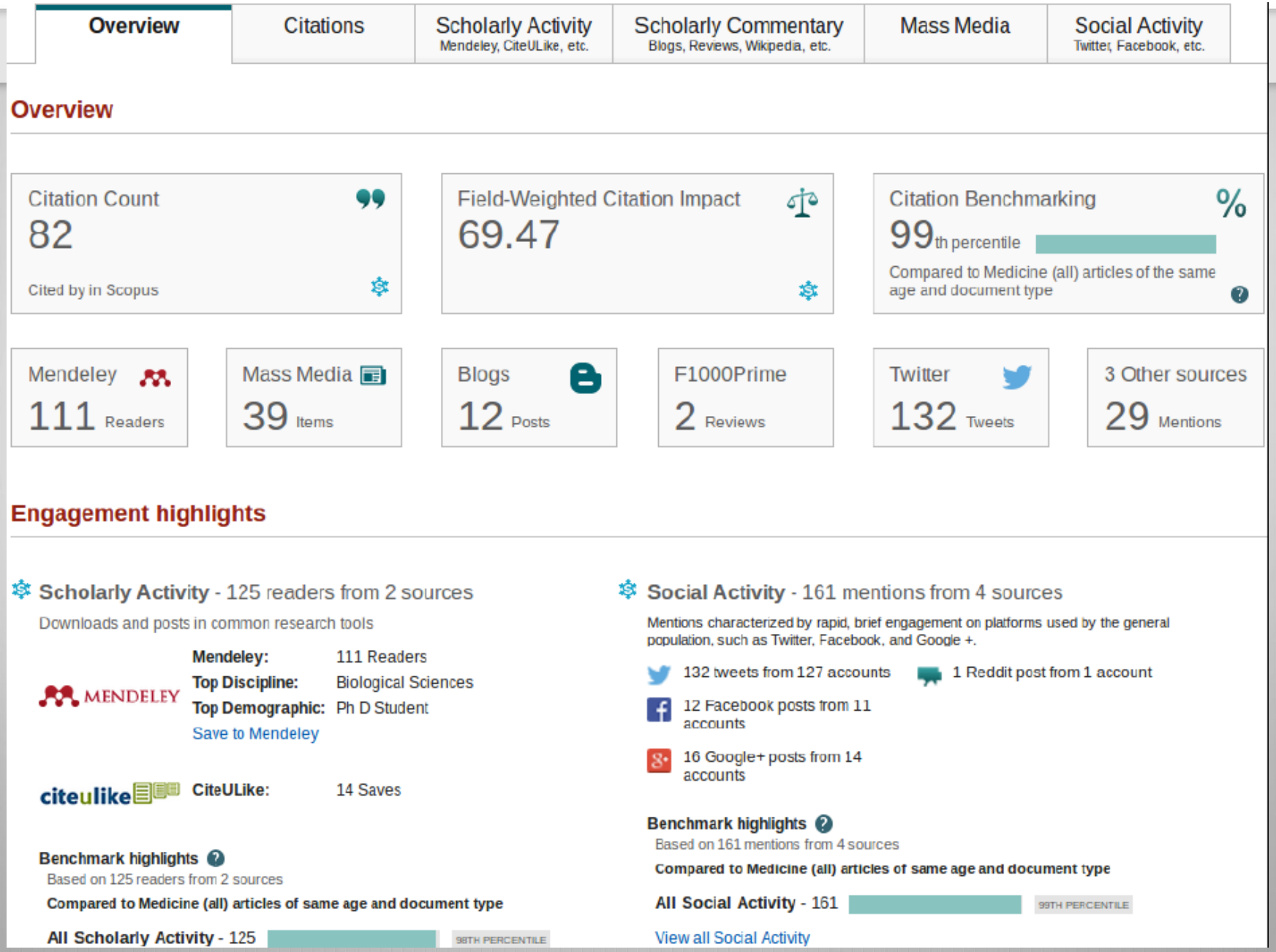
Captures – bookmarks, code forks, favorites, reader

Mentions – blog posts, comments, reviews, Wikipedi

Social media – +1s, likes, shares, tweets Learn mo

Citations – PubMed Central, Scopus, patents Lear

주요 도구 : Scopus's Article-Level Metrics



주요 도구 : PLOS Article-Level Metrics (ALMs)

주요 도구 : PLOS Article-Level Metrics (ALMs)

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OPEN ACCESS PEER-REVIEWED
RESEARCH ARTICLE

183,970	18	197	3,368
VIEWS	CITATIONS	SAVES	SHARES

A Meta-Analysis of the Impacts of Genetically Modified Crops

Wilhelm Klümper, Matin Qaim

Published: November 03, 2014 • DOI: 10.1371/journal.pone.0111629

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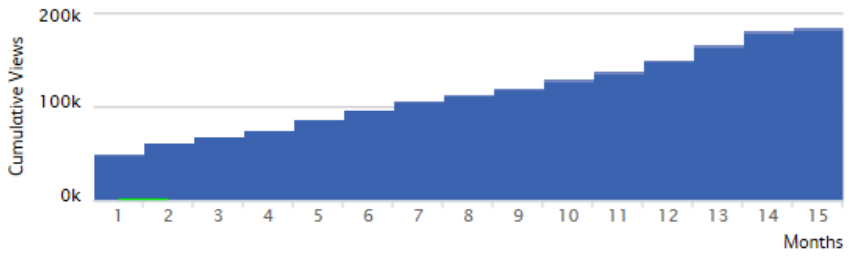
Viewed

Total Article Views
183,970
Nov 3, 2014 (publication date) through Jan 10, 2016*

	HTML Page Views	PDF Downloads	XML Downloads	Totals
PLOS	170,374	10,690	97	181,161
PMC	2,430	379	n.a.	2,809
Totals	172,804	11,069	97	183,970

6.41% of article views led to PDF downloads



Compare average usage for articles published in **2014** in the subject area:

Subject Areas

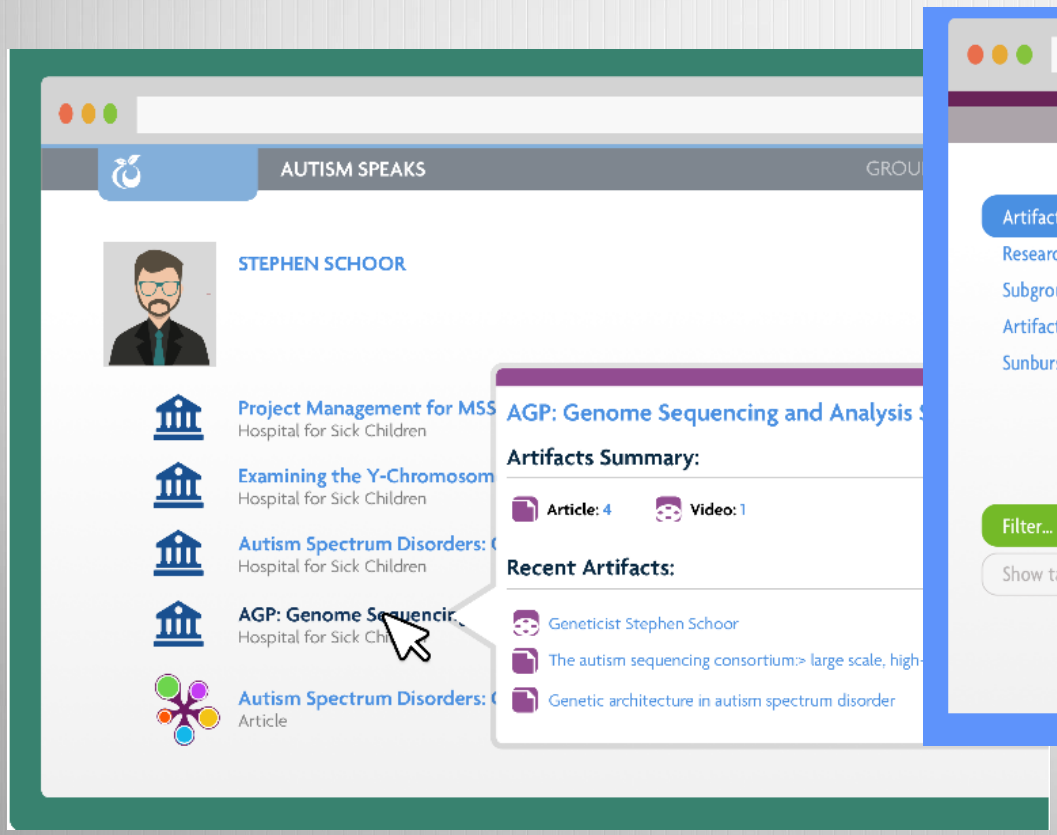
Cotton
Crop genetics
Farms
Genetically modi...
Herbicides
Meta-analysis
Peer review
Pesticides

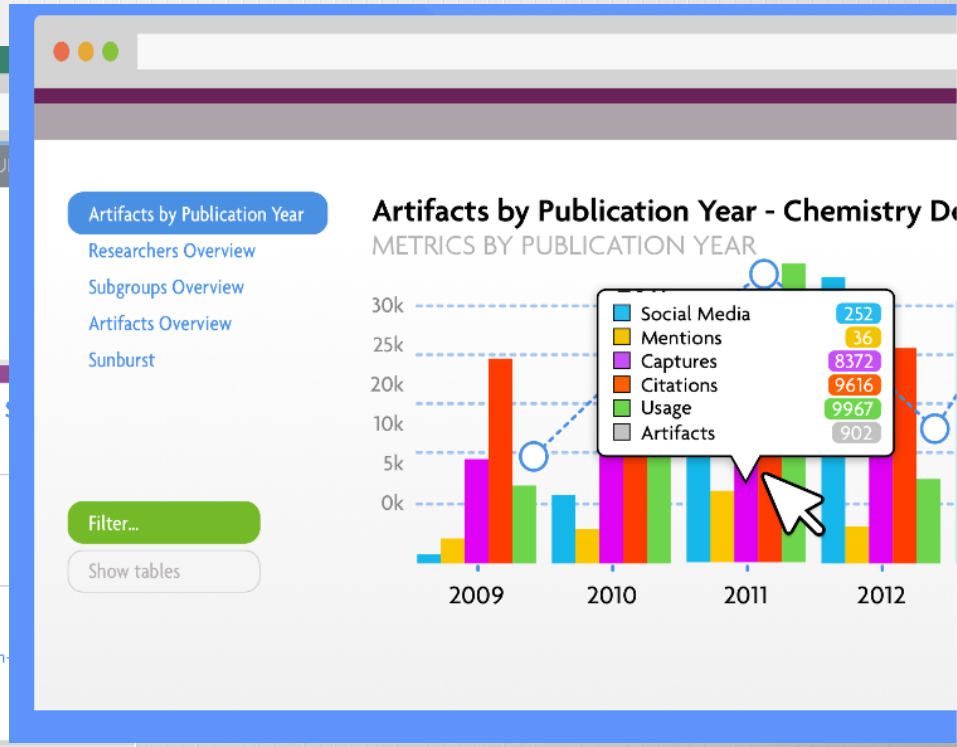
ADVERTISEMENT

주요 도구 : PLOS Article-Level Metrics (ALMs)

주요 고객

- 학술출판사 및 전문학회 웹서비스
- 주요 대학 기관 리파지토리
- http://plumanalytics.com/about/newsroom/





Ways of Raising Visibility

- Social Networks
  - CiteUlike, Mendeley, ReadCube, …
  - Twitter, FaceBook, Blog, LinkedIn, …

고려사항

- 영국 HEFCE가 정의한 **Responsible metrics의 요건**
  - **Robustness(강건성)**: 정확성과 범위의 관점에서 가장 가능성있는 데이터에 기반한 metrics
  - **Humility(겸손)**: 정량적인 평가는 정성적인 평가와 전문가평가를 지원해야 하고 단지 대체할 뿐이라는 것을 인식하는 것
  - **Transparency(투명성)**: 데이터 집합과 분석과정이 개방적이고 투명하게 유지되어야 하고, 평가된 결과들이 테스트되고 검증 가능하게 해야 함
  - **Diversity(다양성)**: 분야에 따는 변형을 설명할 수 있어야 하고 연구시스템을 가로지르는 다양성을 지원하는 다양한 지표를 사용하는 것
  - **Reflexivity(유연성)**: 지표들의 체계적이고 잠재적인 효과를 인식하고 이에 대응하여 지표들을 갱신하는 것
- HEFCE가 영국의 연구시스템에 관련되는 이해당사자들을 위하여 계량학적 방법론을 사용하기 위한 권고사항 참고

Elsevier의 Beyond Downloads Project

Beyond Downloads:
How scholars save & share articles

Sharing of scholarly articles is widespread and increasing. The Beyond Downloads project looks at scholars' sharing behavior and what download counts are missing to better measure the reach — and impact — of a library's resources.

RESPONDENT DEMOGRAPHICS

Country breakdown

- United States 27%
- Italy 7%
- China 7%
- Spain 4%
- Canada 4%
- United Kingdom 3.8%
- India 3.8%
- 62 other countries 43.4%

Subject area of interest

- Life Sciences 18.2%
- Physical Sciences 15.5%
- Medical or Health Sciences 20.8%
- Computer Sciences 4.6%
- Mathematics 3.9%
- Engineering 12.9%
- Social Sciences 12.5%

Rank or position

- 81.0% Professor / faculty member / researcher in an academic institution
- 11.2% Researcher in a private or non-academic institution
- 3.4% Masters or PhD student
- 4.4% Other

82% of respondents hold a PhD

48 Average respondent age

DOWNLOAD

98% of respondents downloaded articles

- Library subscriptions or databases 54%
- Other databases 9%
- Institutional or subject repositories 9%
- Publisher websites 19%
- Research social networks 7%
- Other websites or social media 6%

(As some respondents selected "0" for each source of download, these mean percentages do not equal 100.)

65 Average number of scholarly articles downloaded per research project

26 Average number of scholarly articles downloaded for teaching in their last academic term

Do scholars return to a saved copy?

61% return to articles read for research purposes

57% return to articles for teaching

DEFINITIONS

Scholarly articles — articles found in print or electronic journal issues, websites, or separate copies such as preprints, reprints, and other electronic copies downloaded for the purposes of researching or teaching

Downloading — accessing and saving scholarly articles from search engines, library e-collections, or scholarly databases

Elsevier의 Beyond Downloads Project

SAVE & SHARE

Where do the articles go?

83.6% saved full-text articles to a desktop or laptop more than half the time

What do they share?

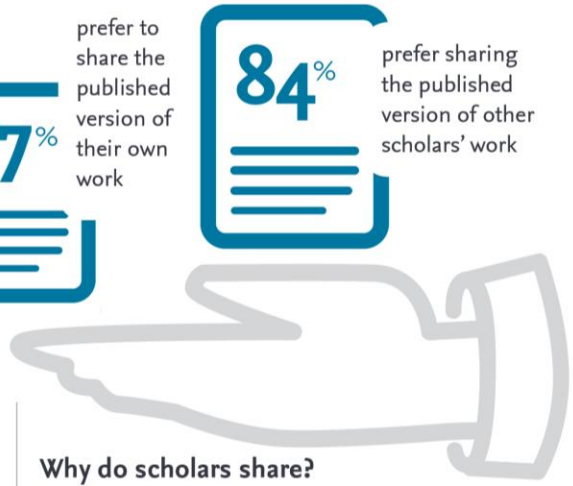
51% full-text articles
14% references
16% url/links

Which version of the article do they want to share?

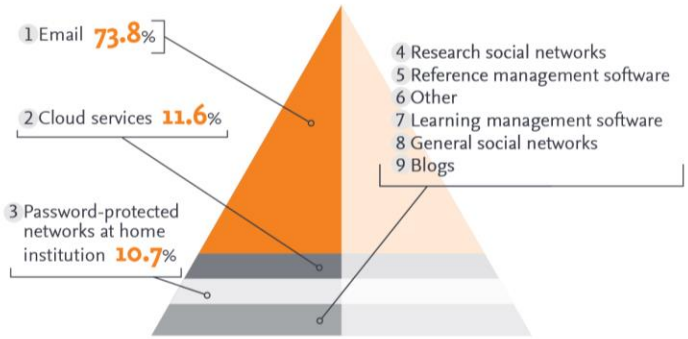
"The main point should be that I share a version that is evidentially the peer-reviewed version (with the publisher and the journal stamp on it)."

77% prefer to share the published version of their own work

84% prefer sharing the published version of other scholars' work



How do scholars share for research?

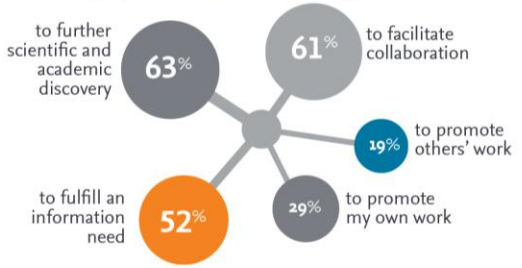


Their most recent link or reference is shared by email an average of **8.2 TIMES** (excluding outliers)

Their most recent full-text download is shared by email an average of **8.4 TIMES** (excluding outliers)

Why do scholars share?

The most popular reasons for sharing are:



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CIBER Research Ltd.

About the survey and the Beyond Downloads project

Results reflect feedback from 1,000 respondents. The online survey was hosted at the University of Tennessee and distributed by Elsevier as part of the Beyond Downloads project, whose purpose is to ascertain a more complete picture of the use and value of scholarly articles. Sponsored by Elsevier, Beyond Downloads is an international collaboration among the University of Tennessee, CIBER Research Ltd., Project COUNTER and Elsevier.

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감사합니다

Thank You

Q & A

sunny.choi@kisti.re.kr