

# Zitate, Downloads und altmetrics: Möglichkeiten zur Messung von wissenschaftlichem Impact?

27. September 2012 | Stefanie Haustein

# Überblick

1. Einfluss und Sichtbarkeit von wiss. Publikationen
2. Zitationen, Downloads und/oder Bookmarks?
3. Social Bookmarks und Tags als Nutzersicht?
4. Ausblick

# Einfluss wissenschaftlicher Publikationen



# Einfluss wissenschaftlicher Publikationen

“While traditional **citation analysis** can tell us a lot about the **formal bases** of intellectual influence, it, quite naturally, tells us nothing about the **many other modalities of influence**, which comprise the total impact of an individual’s ideas, thinking, and general professional presence.”

*Cronin et al., 1998, p. 1326*

“[...] published articles may make **valuable contributions** to science as a whole in ways they are unlikely to be reflected by citations because they will be **used predominantly for things other than supporting further research.**”

*Thelwall, 2012, p. 430*

- Cronin, B., Snyder, H. W., Rosenbaum, H., Martinson, A., & Callahan, E. (1998). Invoked on the Web. *Journal of the American Society for Information Science*, 49(14), 1319–1328.
- Thelwall, M. (2012). Journal impact evaluation: A webometric perspective. *Scientometrics*, 92, 429–441.

# Sichtbarkeit von Wissenschaftlern

## “Footprints”

- Publikationen
- Publikationslisten
- Homepages
- Soziale Netzwerke
- Publikationsprofile
- Tweets

TRADITIONAL  
BIBLIOMETRICS

ALTMETRICS

## “Impact”

- Zitationen
- Downloads
- Links
- Bookmarks
- Retweets

# Sichtbarkeit von Wissenschaftlern

## “Footprints”

- Publikationen
- Publikationslisten
- Homepages
- Soziale Netzwerke
- Publikationsprofile
- Tweets



## “Impact”

- Zitationen
- Downloads
- Links
- Bookmarks
- Retweets

# Einfluss messen

## Zitationen

- Einfluss auf wissenschaftliche Autoren
  - formale Kommunikation
  - Peer Review

## Downloads

- Einfluss auf gesamte Leserschaft
  - Zugriff auf Volltext

## Bookmarks

- Einfluss auf gesamte Leserschaft
  - Referenzmanagement

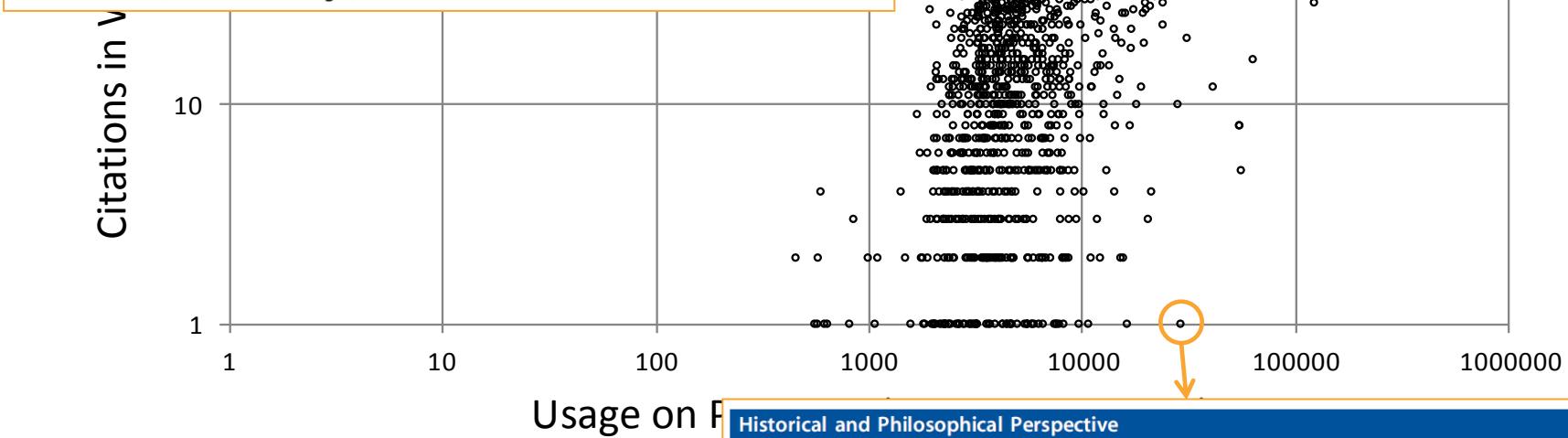
# Zitationen vs. Downloads

## Mapping the Structural Core of Human Cerebral Cortex

Patric Hagmann<sup>1,2</sup>, Leila Cammoun<sup>2</sup>, Xavier Gigandet<sup>2</sup>, Reto Meuli<sup>1</sup>, Christopher J. Honey<sup>3</sup>, Van J. Wedeen<sup>4</sup>, Olaf Sporns<sup>3\*</sup>

### Transcriptional Dysregulation in NIPBL and Cohesin Mutant Human Cells

Jinglan Liu<sup>1</sup>, Zhe Zhang<sup>2</sup>, Masahige Bando<sup>3</sup>, Takehiko Itoh<sup>3</sup>, Matthew A. Deardorff<sup>1,4</sup>, Dinah Clark<sup>1</sup>, Maninder Kaur<sup>1</sup>, Stephany Tandy<sup>1</sup>, Tatsuro Kondoh<sup>5</sup>, Eric Rappaport<sup>6</sup>, Nancy B. Spinner<sup>1,4</sup>, Hugo Vega<sup>7</sup>, Laird G. Jackson<sup>8</sup>, Katsuhiko Shirahige<sup>3</sup>, Ian D. Krantz<sup>1,4\*</sup>



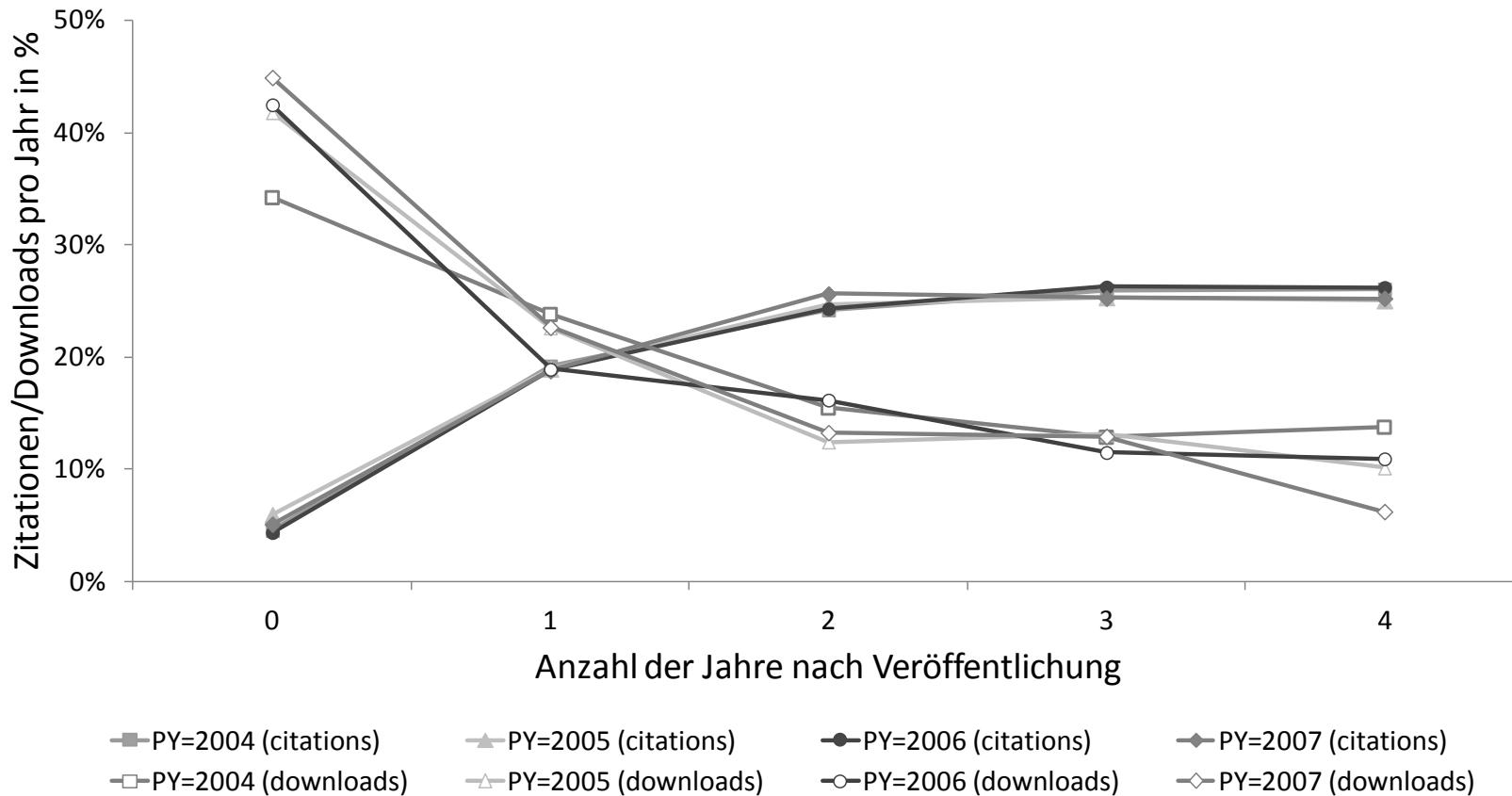
### Historical and Philosophical Perspective

## The Mismeasure of Science: Stephen Jay Gould versus Samuel George Morton on Skulls and Bias

Jason E. Lewis<sup>1\*</sup>, David DeGusta<sup>2</sup>, Marc R. Meyer<sup>3</sup>, Janet M. Monge<sup>4</sup>, Alan E. Mann<sup>5</sup>, Ralph L. Holloway<sup>6</sup>

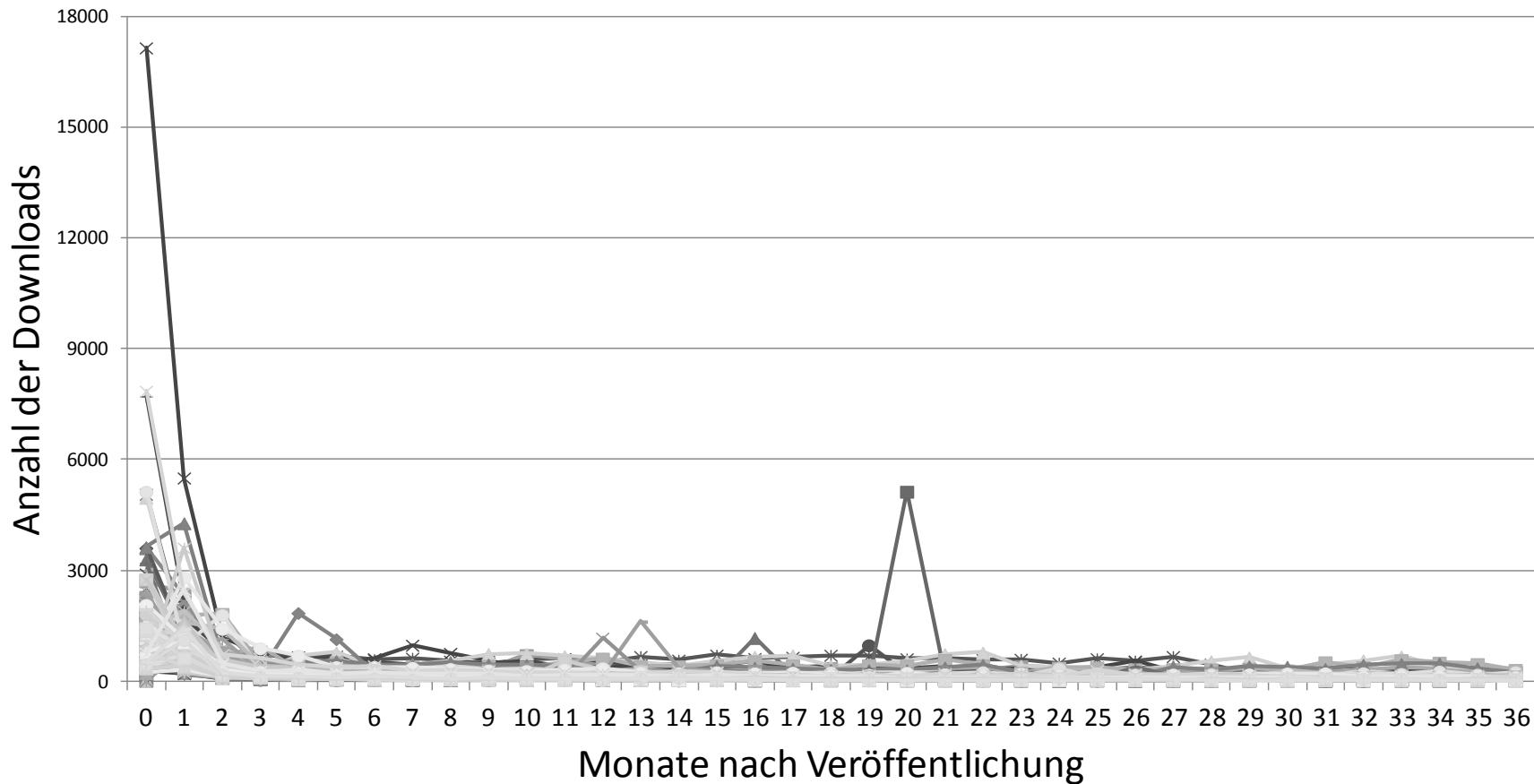
# Zitationen und Downloads von

# Zitationen vs. Downloads



Prozentuale Verteilung der Zitationen und Downloads von  
*PLoS Biology* Artikeln pro Jahr

# Downloads

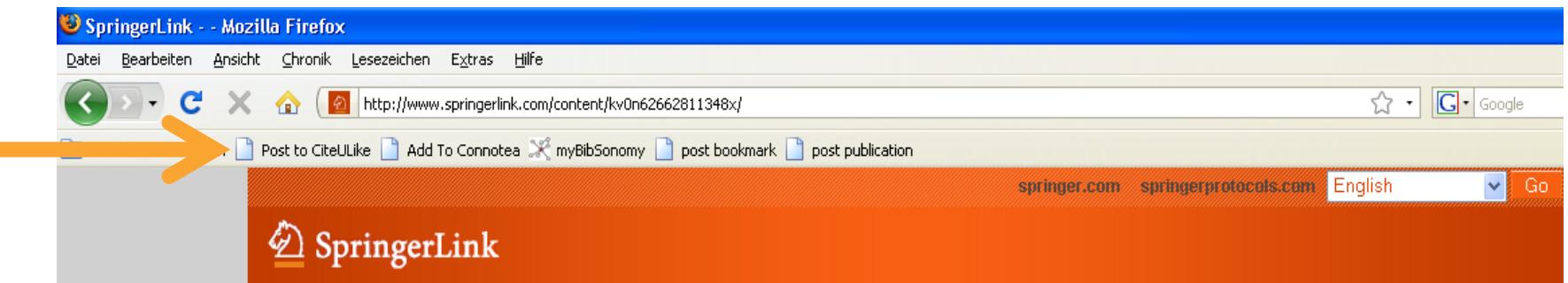


Anzahl der Downloads von 215 *PLoS Biology* Artikeln pro Monat  
(DT: Articles, PY= 2007)

## Downloads

- Verfügbarkeit
  - Abhängigkeit vom Publisher
  - Intention
- Bookmarks als Alternative und/oder Ergänzung?

# Social Bookmarking und Reference Managers



SpringerLink - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.springerlink.com/content/kv0n62662811348x/

Post to CiteULike Add To Connotea myBibSonomy post bookmark post publication

springer.com springerprotocols.com English Go

CiteULike MyCiteULike Search Logged in

## My library 1 article

 [Comparison of citation and usage indicators: the case of oncology journals](#)

*Scientometrics*, Vol. 82, No. 3. (1 March 2010), pp. 567-580-580.  
by [Christian Schloegl](#), [Juan Gorraiz](#)  
posted to [usage indicators journal impact download data](#) by [teamprojekt](#) on 2010-08-20 10:12:32 ✓ along with 2 people [Schopfel h prost](#)

 [Abstract](#)

Note: You may cite this page as: <http://www.citeulike.org/user/teamprojekt>

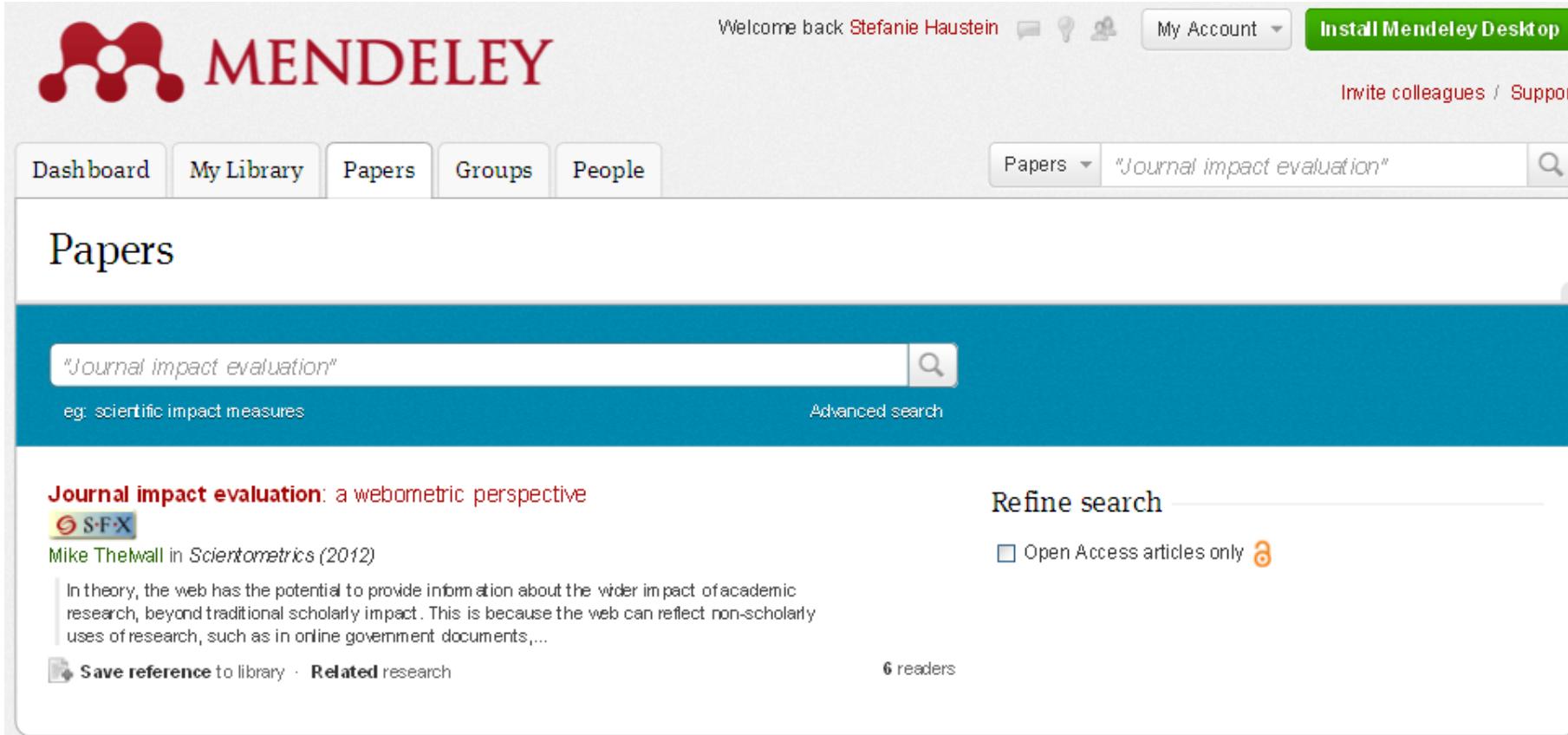
citation Ming-yuen Tsay  
 Book Chapter  
Presenting and Publishing  
Research Data Howard A. Bird

Link Out to this Article at FZJ Forschungszentrum Juelich:  


 Download PDF (481.3 KB)  View HTML



# Social Bookmarking und Reference Managers



The screenshot shows the Mendeley desktop application interface. At the top, there is a navigation bar with the Mendeley logo, a welcome message "Welcome back Stefanie Haustein", account settings, and a "Install Mendeley Desktop" button. Below the navigation bar is a toolbar with links for Dashboard, My Library, Papers, Groups, and People. A search bar is also present. The main content area is titled "Papers" and displays a search results page for the query "Journal impact evaluation". The results include a summary of the paper by Mike Thelwall from *Scientometrics* (2012), a brief description of its content, and options to save it to the library or view related research. On the right side, there are "Refine search" and "Open Access articles only" filters.

Welcome back **Stefanie Haustein**

My Account 

**Install Mendeley Desktop**

Invite colleagues / Support

Dashboard My Library Papers Groups People

Papers  "Journal impact evaluation" 

## Papers

"Journal impact evaluation" 

eg: scientific impact measures Advanced search

**Journal impact evaluation: a webometric perspective** 

Mike Thelwall in *Scientometrics* (2012)

In theory, the web has the potential to provide information about the wider impact of academic research, beyond traditional scholarly impact. This is because the web can reflect non-scholarly uses of research, such as in online government documents,...

 **Save reference** to library · **Related** research  6 readers

Open Access articles only 

**Refine search**

# Social Bookmarking und Reference Managers



## Electronic Publishing

In this subdiscipline: 3,784 papers

Mendeley

Computer and Information Science

Electronic Publishing

### Discipline summary

The publication of content in digital form either for download or for online viewing. Content is either textual, graphic or in multimedia form (audio, video). Included are articles, journals, books and apps (where they can be considered to be a "publication"). The topic also includes business models, ethics of e-publication, commercial and academic publishing.

[Edit description](#)

### Popular papers

#### The Semantic Web



Tim Berners-Lee, James Hendler, Ora Lassila in *Scientific American* (2001)

A new form of Web content that is meaningful to computers will unleash a revolution of new possibilities.

[Save PDF to library](#) · [Related research](#)

410 readers

#### A Principal Component Analysis of 39 Scientific Impact Measures



Johan Bollen, Herbert Van De Sompel, Aric Hagberg, Ryan Chute in *PLoS ONE* (2009)

Background: The impact of scientific publications has traditionally been expressed in terms of citation counts. However, scientific activity has moved online over the past decade. To better capture scientific impact in the digital era, a variety of...

[Save PDF to library](#) · [Related research](#)

217 readers

### Popular tags



### Active members



Vicente Lillo Hidalgo

Researcher (at an Academic Institution)  
University of Murcia

87 contacts



Christian Gutknecht

Student (Master)  
University of Zurich, Main Library

34 contacts



Nancy Diana Gomez

Ph.D. Student  
Madrid, Spain

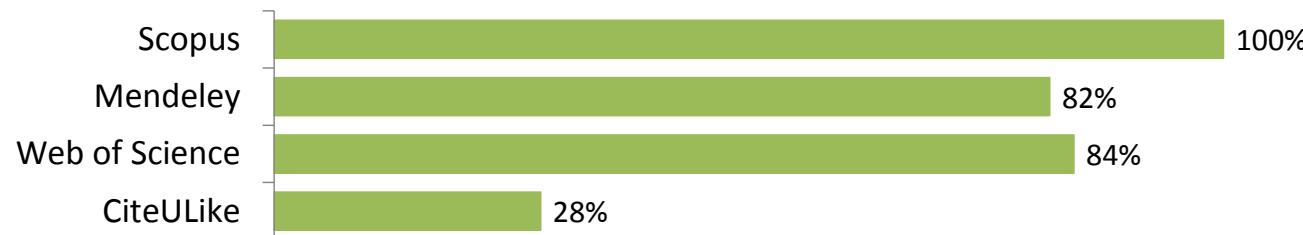
## Downloads vs. Bookmarks

“Social bookmarking data are likely to provide **more robust** indicators than usage factors insofar as they result from the **intentional behavior** of users interested in marking an item for future use rather than from pure navigation patterns. Bookmarking an item is a much more relevant [...] kind of action to estimate user interest than merely following a link.”

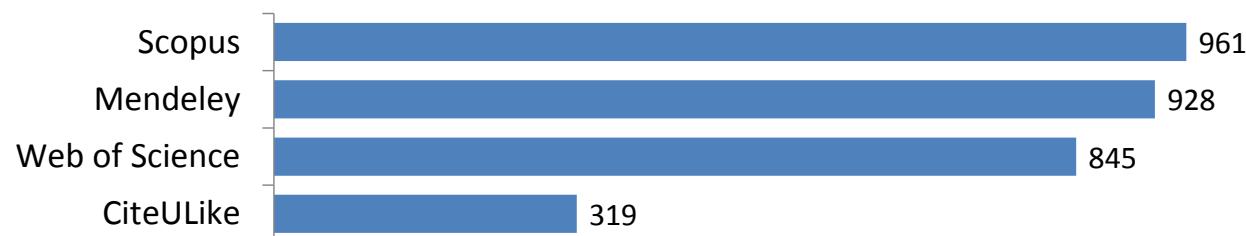
*Taraborelli, 2008, p. 104*

# Social Bookmarks vs. Zitationen

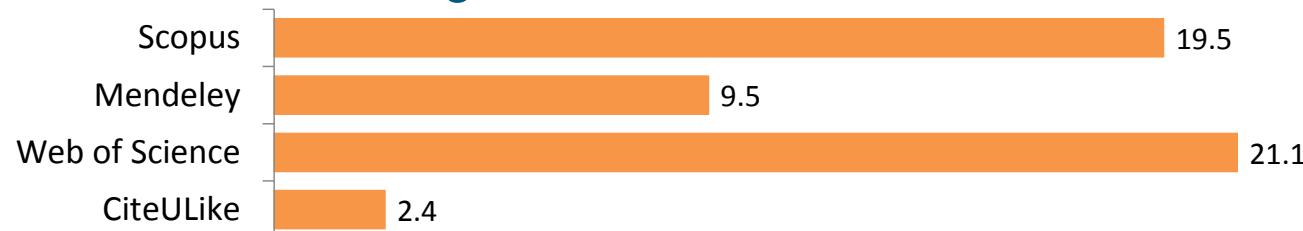
Abdeckung von 1136 Bibliometrie-Artikeln (Scopus)



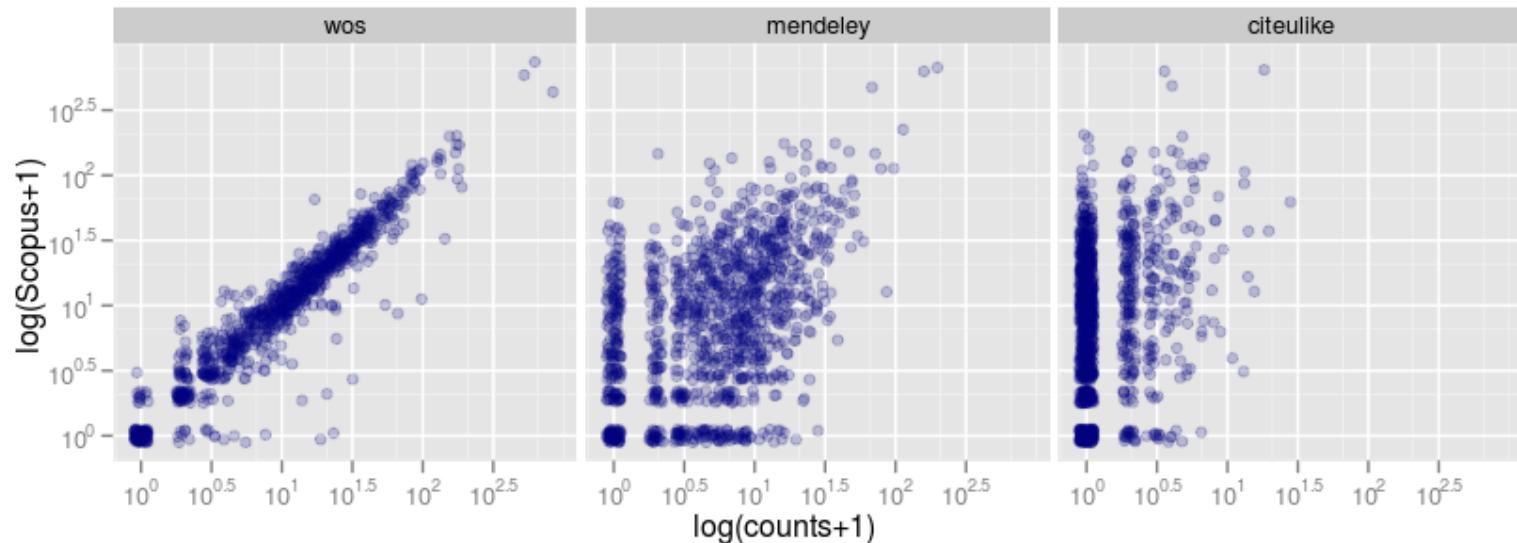
Dokumente mit mind. einem Zitat bzw. Nutzer



Zitations- bzw. Nutzungsrate



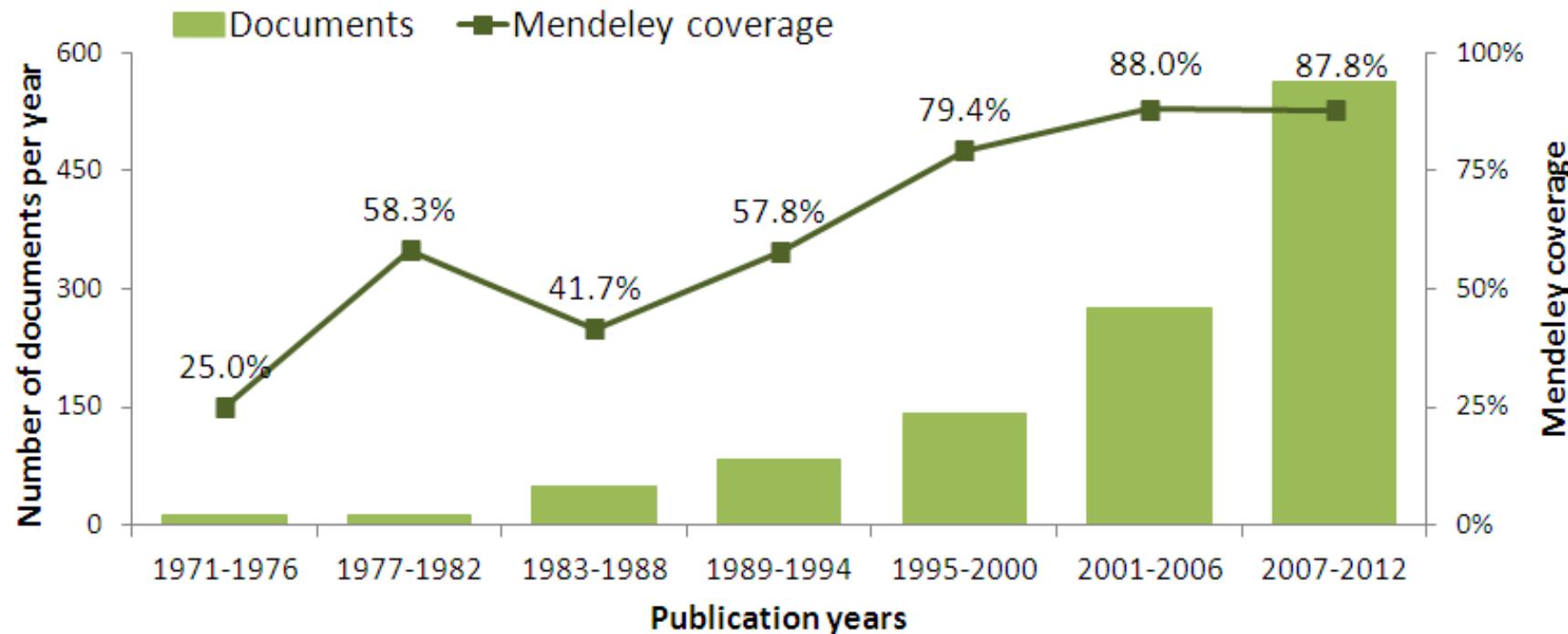
# Social Bookmarks vs. Zitationen



<b>Spearman's <math>\rho</math></b>	Zitationen (Scopus)	Bookmarks (Mendeley)	Bookmarks (CiteULike)
Zitationen (Scopus)		.448**	.232**
Bookmarks (Mendeley)	.448**		.441**
Bookmarks (CiteULike)	.232**	.441**	

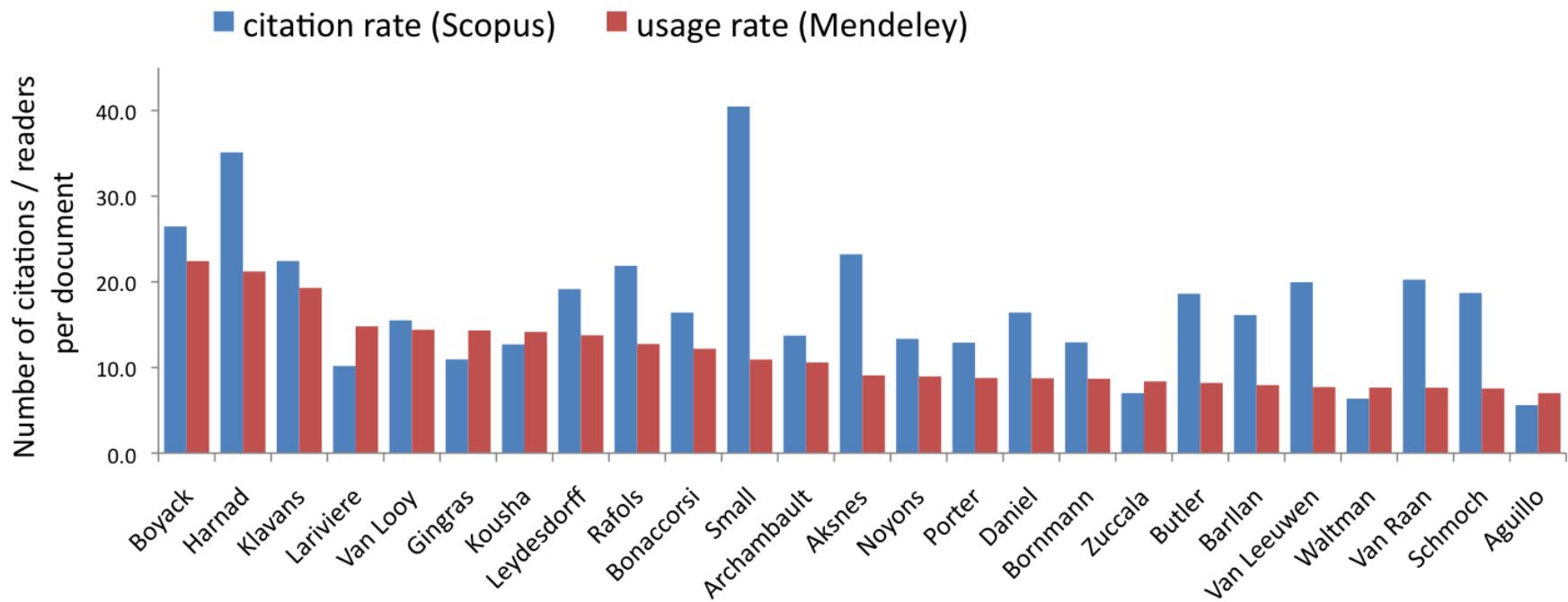
# Social Bookmarking

## Abdeckung in Mendeley nach Publikationsjahr



# Social Bookmarks vs. Zitationen: Autorenebene

## Zitations- und Nutzungsrate auf Autorenebene



*top 25 authors of a sample of 57 STI 2010 presenters*

# Social Tags: AutorenEbene

# Tags von CiteULike-Nutzern zu Artikeln von Leydesdorff und Harnad

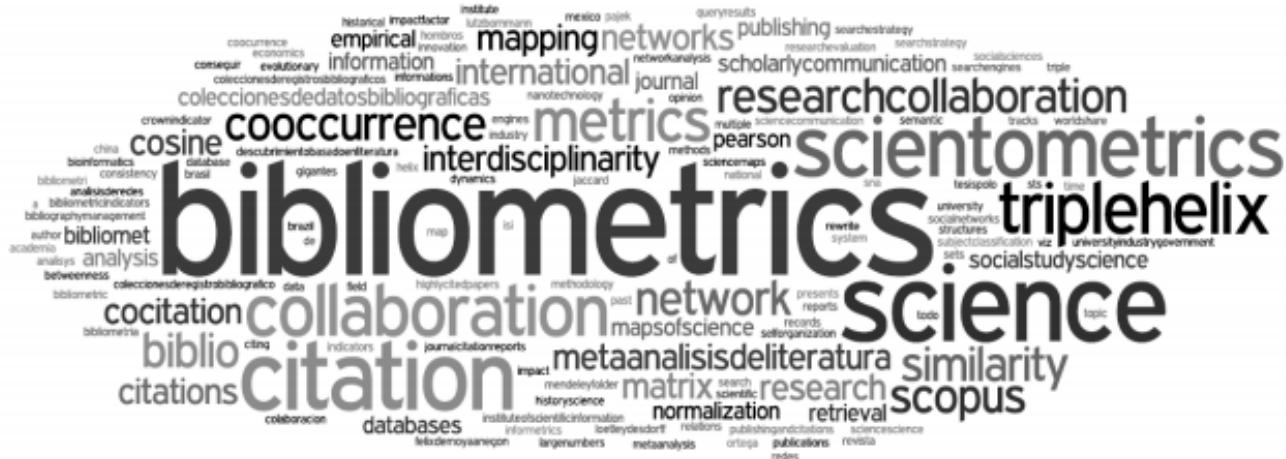


Figure 1: All tags assigned to articles published by Loet Leydesdorff.



Figure 2: All tags assigned to articles published by Stevan Harnad.

Judit Bar-Ilan, Stefanie Haustein, Isabella Peters, Jason Priem, Hadas Shema & Jens Terliesner (2012). Beyond Citations. Scholars' Visibility on the Web. In: *Proceedings of STI 2012 Montréal* Vol. 1 (pp. 98-109).

## Ausblick

- altmetrics als Möglichkeit wissenschaftlichen Einfluss im breiteren Sinne zu analysieren
- kein Ersatz für Zitationsanalyse
- Probleme / Herausforderungen:
  - Manipulierbarkeit
  - Datenqualität
  - Repräsentativität

# Herzlichen Dank für Ihre Aufmerksamkeit!

Stefanie Haustein

Forschungszentrum Jülich  
Zentralbibliothek  
52425 Jülich

s.haustein@fz-juelich.de  
+49 2461 616198

haustein.stefanie@gmail.com  
twitter: @sh2106

Post-Conference-Workshops am Do 27.9.

- |                                 |   |
|---------------------------------|---|
| <b>15.15-17.30<br/>(Hs. A)</b>  | <b>Workshop 1: Open Journal Systems</b><br><a href="#">[Info und Anmeldung]</a><br>Kontakt: <a href="mailto:marco.tullney[at]fu-berlin.de">Marco Tullney</a> ( <a href="mailto:marco.tullney[at]fu-berlin.de">marco.tullney[at]fu-berlin.de</a> )   |
| <b>15.30-17.30<br/>(Hs. B)</b>  | <b>Workshop 2: OA-Statistik</b><br><a href="#">[Info und Anmeldung]</a><br>Kontakt: <a href="mailto:daniel.beucke[at]sub.uni-goettingen.de">Daniel Beucke</a> ( <a href="mailto:daniel.beucke[at]sub.uni-goettingen.de">beucke[at]sub.uni-goettingen.de</a> )   |
| <b>15.15-17.15<br/>(Hs. C2)</b> | <b>Workshop 3: APARSEN</b><br>Digitale Langzeitarchivierung von<br>Forschungsergebnissen: Den Herausforderungen<br>gemeinsam begegnen / Digital preservation of the<br>records of science: a common endeavour<br><a href="#">[Info und Anmeldung]</a><br>Kontakt: <a href="mailto:christoph.bruch[at]oa.helmholtz.de">Christoph Bruch</a><br>( <a href="mailto:christoph.bruch[at]oa.helmholtz.de">christoph.bruch[at]oa.helmholtz.de</a> ) |

Interesse geweckt?

Besuchen Sie **Workshop 2: OA-Statistik**  
heute um 15:30h!