



## **PLOS** Article-Level Metrics

Damian Pattinson (after Martin Fenner, Technical Lead, PLOS ALM Project)



The PLOS Article-Level Metrics project started in 2009 and tracks usage, citations and social web activity for all PLOS articles

Usage	Citations	Social Web
PLOS Journals	CrossRef	Mendeley
(HTML, PDF, XML)	Scopus	CiteULike
PubMed Central	Web of Science	Facebook
(abstract, fulltext, PDF, figures)	PubMed Central	Twitter
		<b>Research Blogging</b>

**PLOS Comments** 

**Wikipedia** 



Metrics

#### **Broad-Spectrum Antiviral Therapeutics**

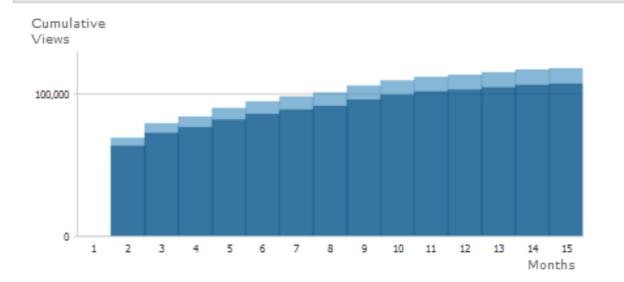
Article

**Related Content** 

#### Article Usage 🕕

Total Article Views		HTML Page Views	PDF Downloads	XML Downloads	Totals
	PLoS	94,576	12,475	137	107,188
118,054 Jul 27, 2011 (publication date) through undefined NaN, NaN*	PMC	8,451	2,415	n.a.	10,866
	Totals	103,027	14,890	137	118,054

Comments: 6



\*Although we update our data on a daily basis, there may be a 48-hour delay before the most recent numbers are available. PMC data is posted on a monthly basis and will be made available once received.

#### PubMed Central (0) Facebook (2740) Scopus (4) Twitter (4) Web of Science® (5) Mendeley (242) **Related Content**

Social Networks

More

CiteULike (13)

Related Subject Categories Biochemistry, Biophysics, Infectious Diseases, Molecular Biology, Physics, Virology Related Articles on the Web Google Scholar PubMed More Share this Article 🕕 😇 👥 💁 🖪 🍥 🔳 💀 🕒

Email this article

#### Citations 0



#### Social Networks (1)

citeulike 🗐 💷	facebook	Rendeley	twitter
13	2740	242	4

Download: PDF | Citation | XML

Total Article Views: 118,054

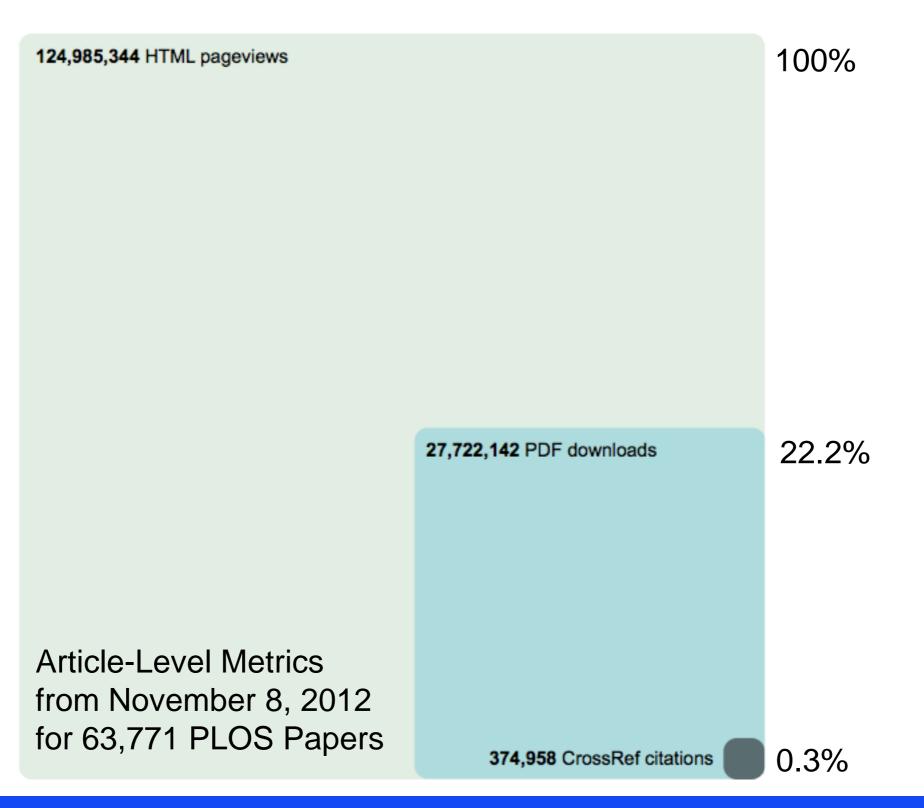
EzReprint New & improved!

Metrics 🕕

Citations CrossRef (6)

OPEN ACCESS

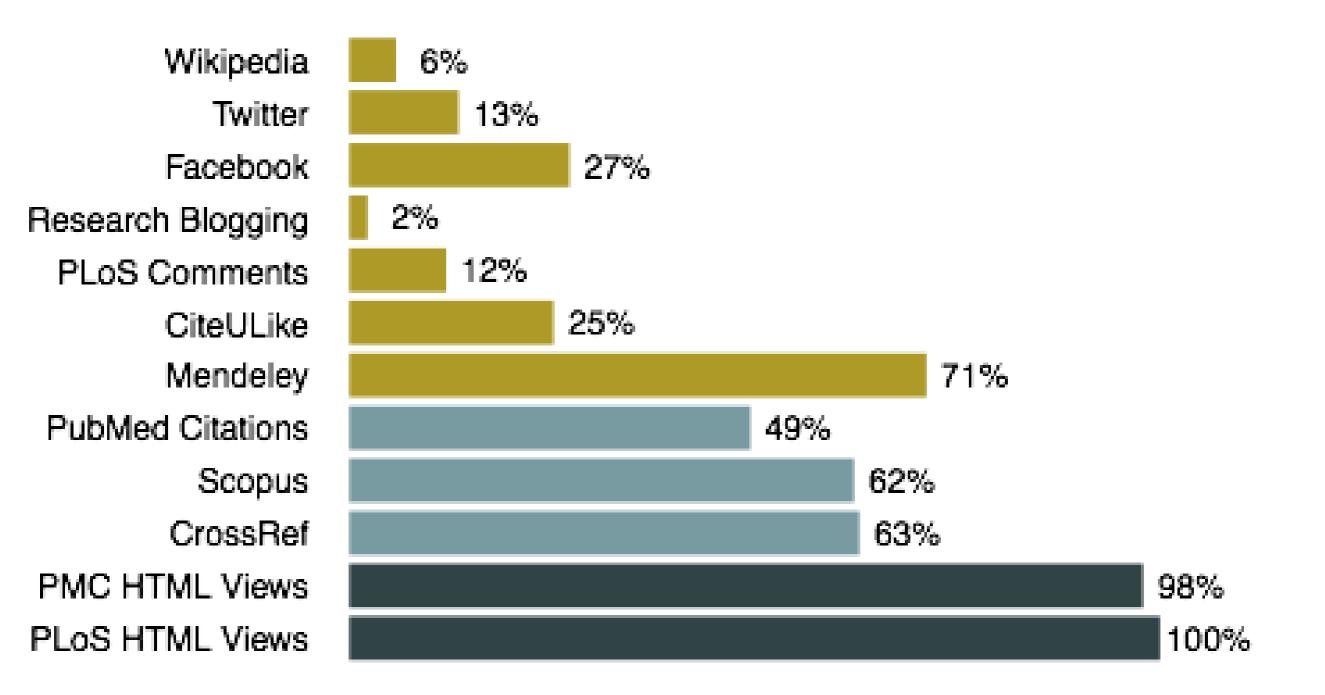
# Citations are only a small fraction of how a paper is reused





## Proportion of articles covered by source

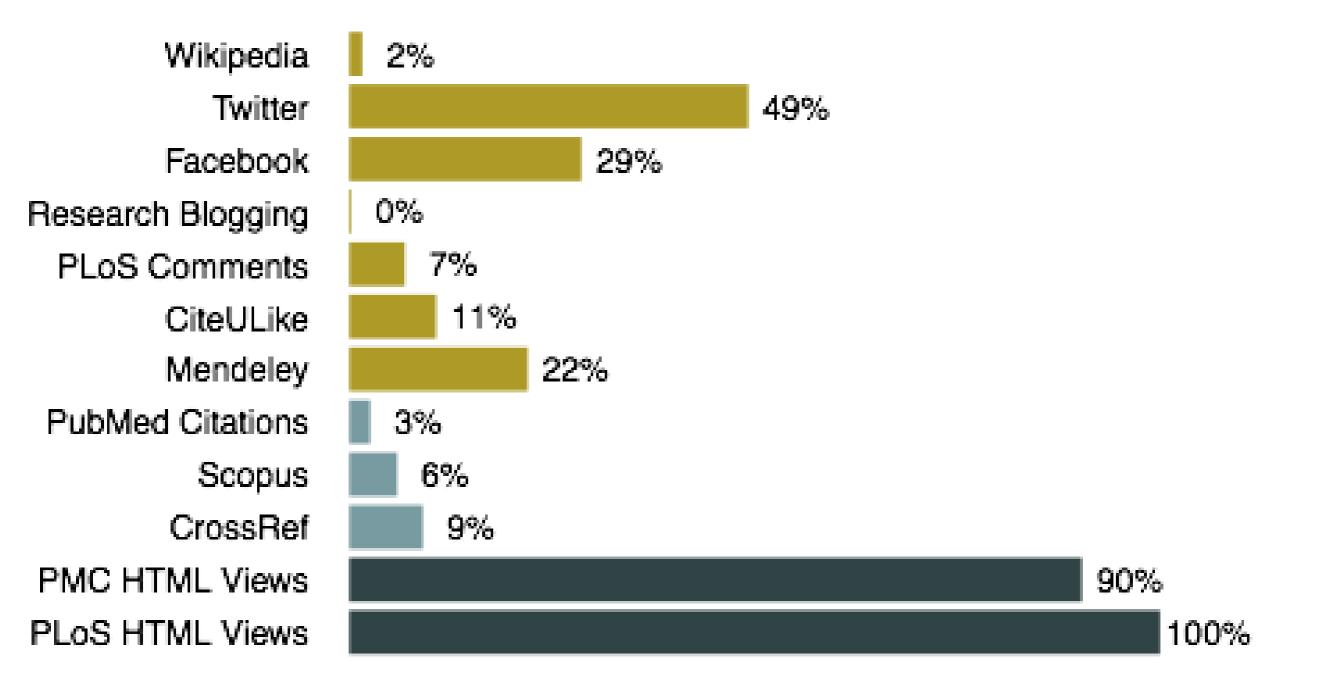
Metrics for 63,771 PLoS journal articles published until November 8, 2012.





## Proportion of articles covered by source

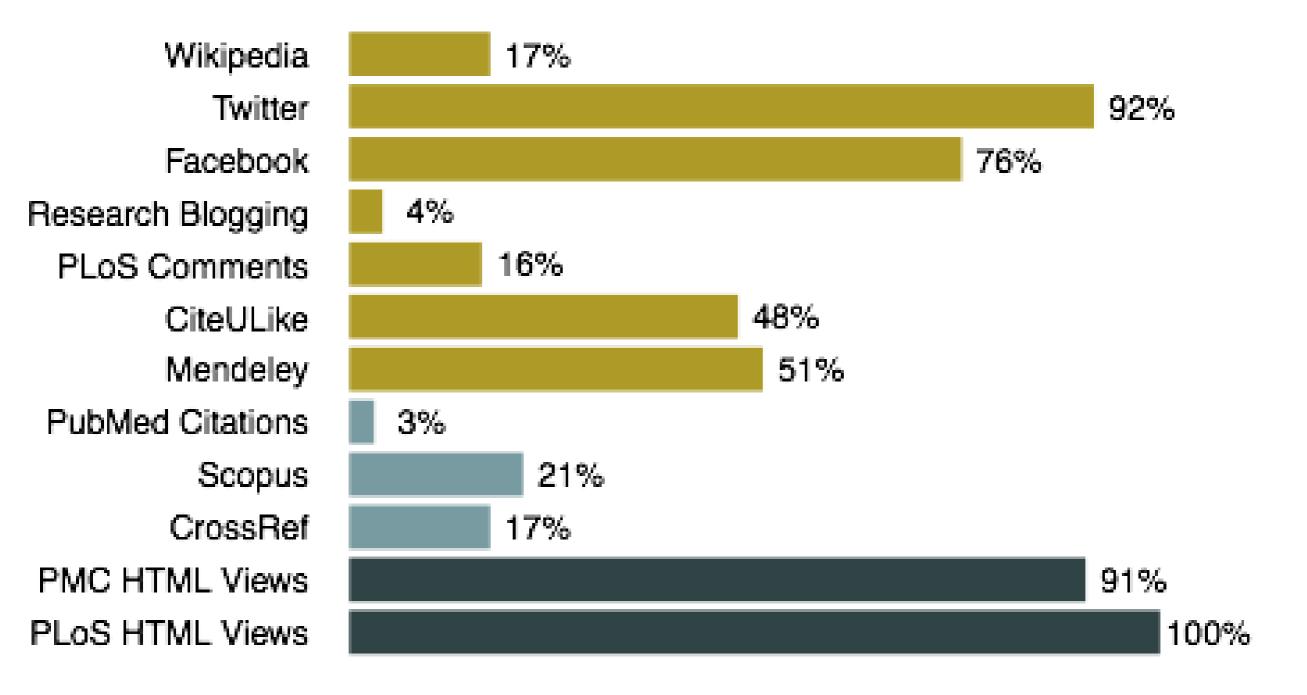
Metrics for 13,739 PLoS journal articles published May 8 – November 8, 2012.





## Proportion of articles covered by source

Metrics for 98 PLoS Biology articles published May 8 – November 8, 2012.









## Data-driven stories about the postpublication reception of a paper

Business intelligence for your journal, university or funder

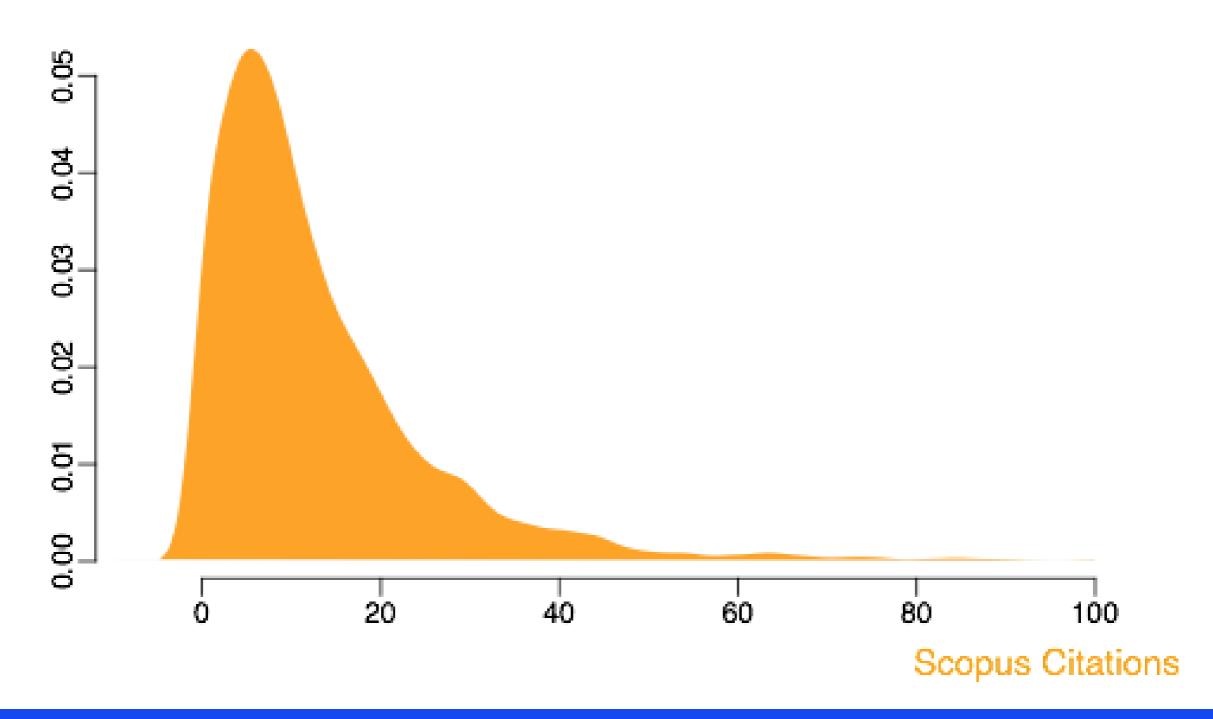
Evaluation of the impact of research and researchers



## Many PLOS ONE Papers are Highly Cited

Number of Scopus citations for all 4405 PLoS ONE papers published in 2009. Data collected November 8, 2012. Median is 9 citations, 10% of papers have at least 29 citations.

Probability





## PLOS ONE is not a second-tier journal

Combined Scopus citation counts for all PLOS Biology and PLOS Medicine articles published in 2009, as well as top 200 PLOS ONE articles in 2009



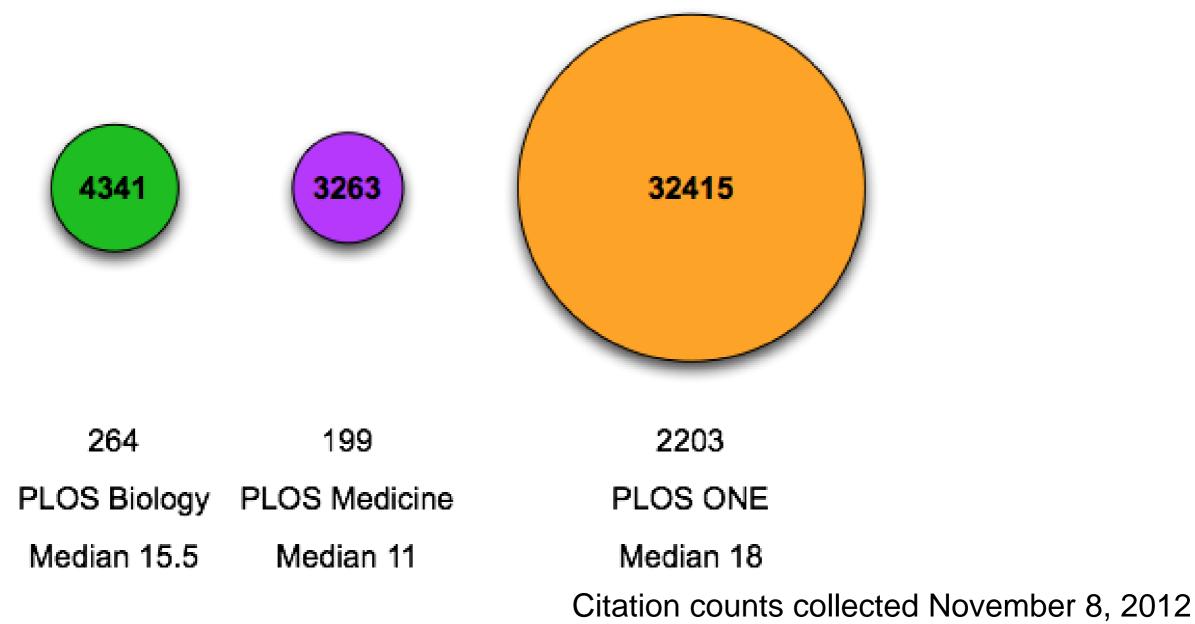
264199200PLOS BiologyPLOS MedicinePLOS ONEMedian 15.5Median 11Median 51.5

Citation counts collected November 8, 2012

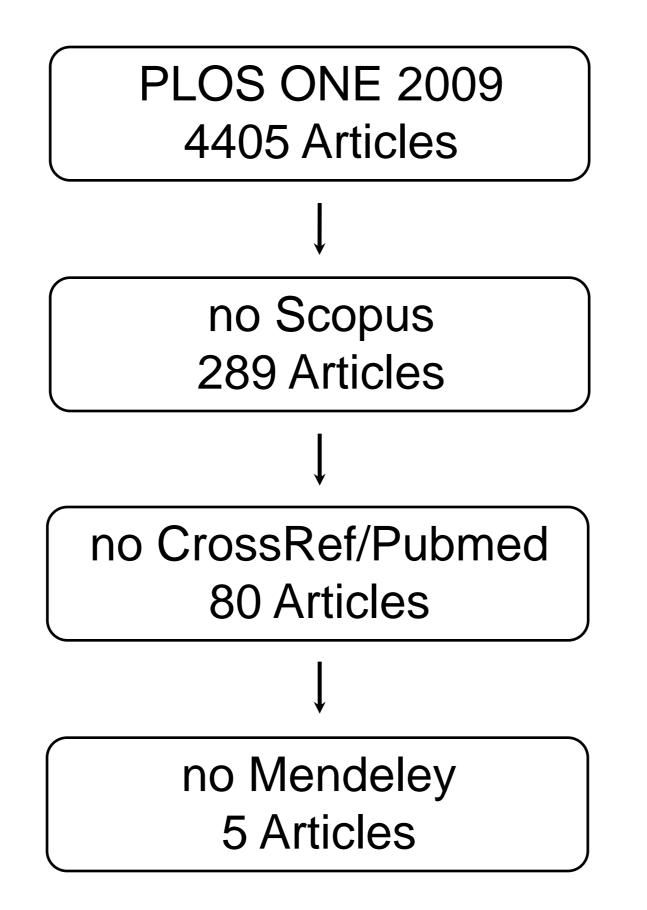


## PLOS ONE is not a second-tier journal

Combined Scopus citation counts for all PLOS Biology and PLOS Medicine articles published in 2009, and top 50% PLOS ONE articles in 2009





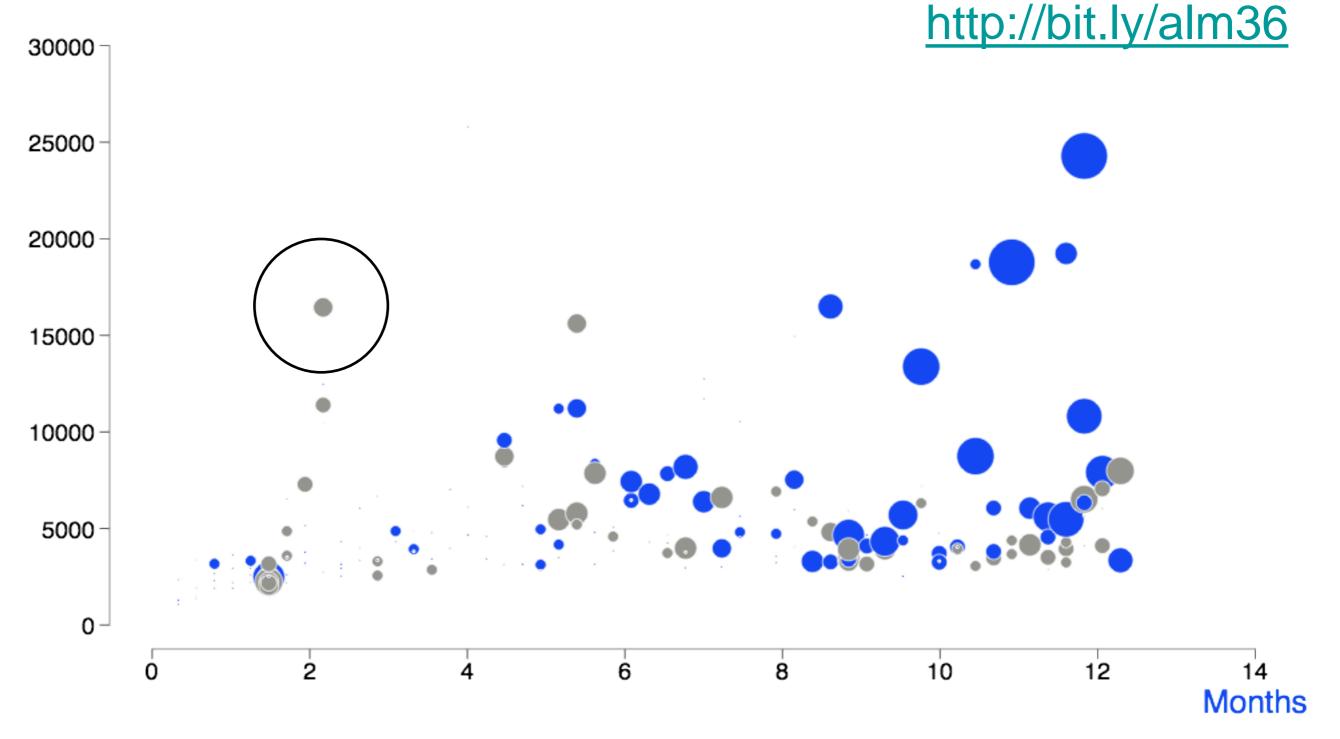




### PLOS Medicine Articles August 2011 to August 2012

Combined HTML views and PDF downloads (PLOS website) for articles published between 08/16/11 and 08/15/12. Bubble size correlates with Scopus citations, bubble color with article type. Data collected 08/24/12.

### **Total Views**

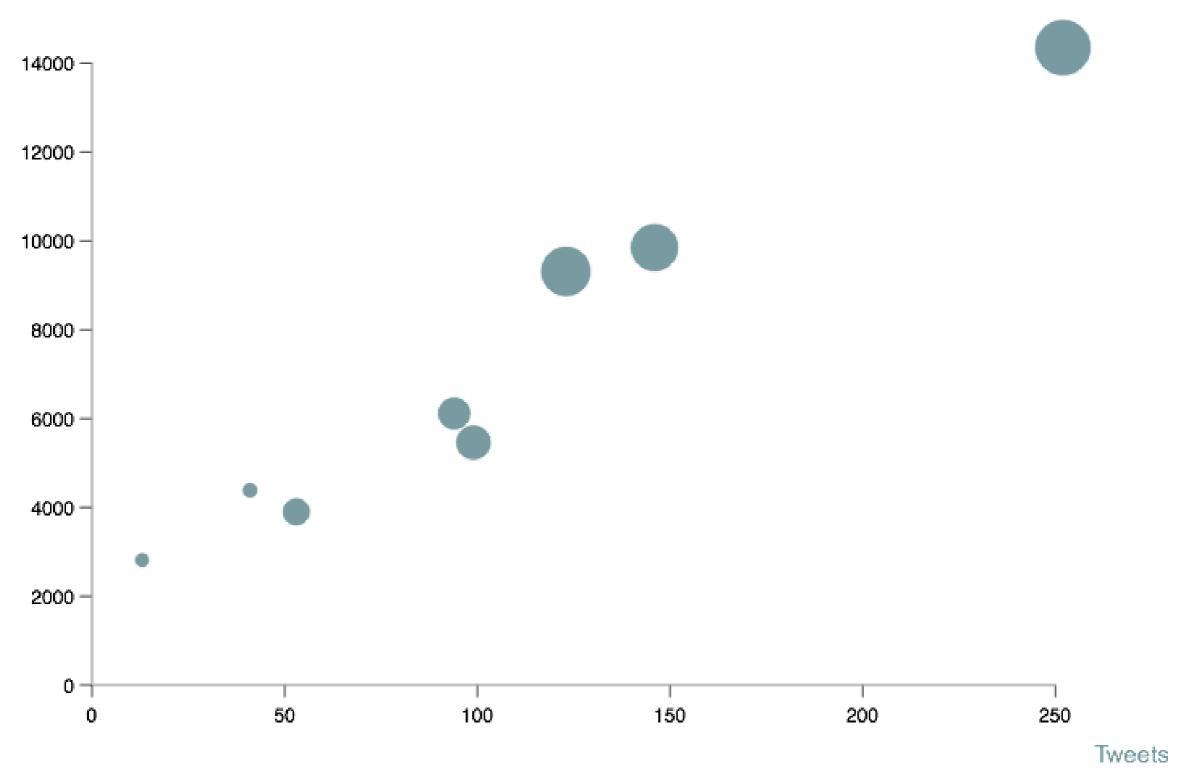




### **PLOS Articles from the Big Food collection**

Tweets vs. HTML views at PLOS for articles in the Big Food collection. Circle size correlates with Facebook activity. Data collected August 19, 2012.

**HTML Views** 





## **Tweets about Big Food Collection**

Data collected August 19, 2012.

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## Big Food, Food Systems, and Global Health

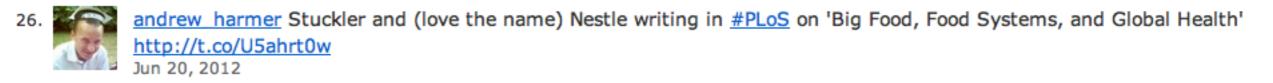
10.1371/journal.pmed.1001242



YaleRuddCenter Great paper series from <u>#plosmedbigfood</u> Follow the conversation! <u>http://t.co/y0chXIAp</u> Jun 20, 2012



<u>hmtvedten</u> Three-fourths of world food sales involve processed foods - Big Food, Food Systems, and Global Health in <u>@PLoSMedicine</u> <u>http://t.co/nCUZLF5L</u> Jun 20, 2012





 PLoS RT @jocalynclark: Public health response to Big Food? "a failure to act" say @marionnestle and @davidstuckler in #PLoSMedbigfood series <u>http://t.co/Ah62HWD4</u> Jun 20, 2012



judith graham Public health response to "Big Food" is inadequate, Marion Nestle writes in PLoS. <u>http://t.co/udKm5Fkh</u> Jun 20, 2012



<u>lauranewmanny</u> RT <u>@judith\_graham</u>: Public health response to "Big Food" is inadequate, Marion Nestle writes in PLoS. <u>http://t.co/cKWmVy57</u> Jun 20, 2012

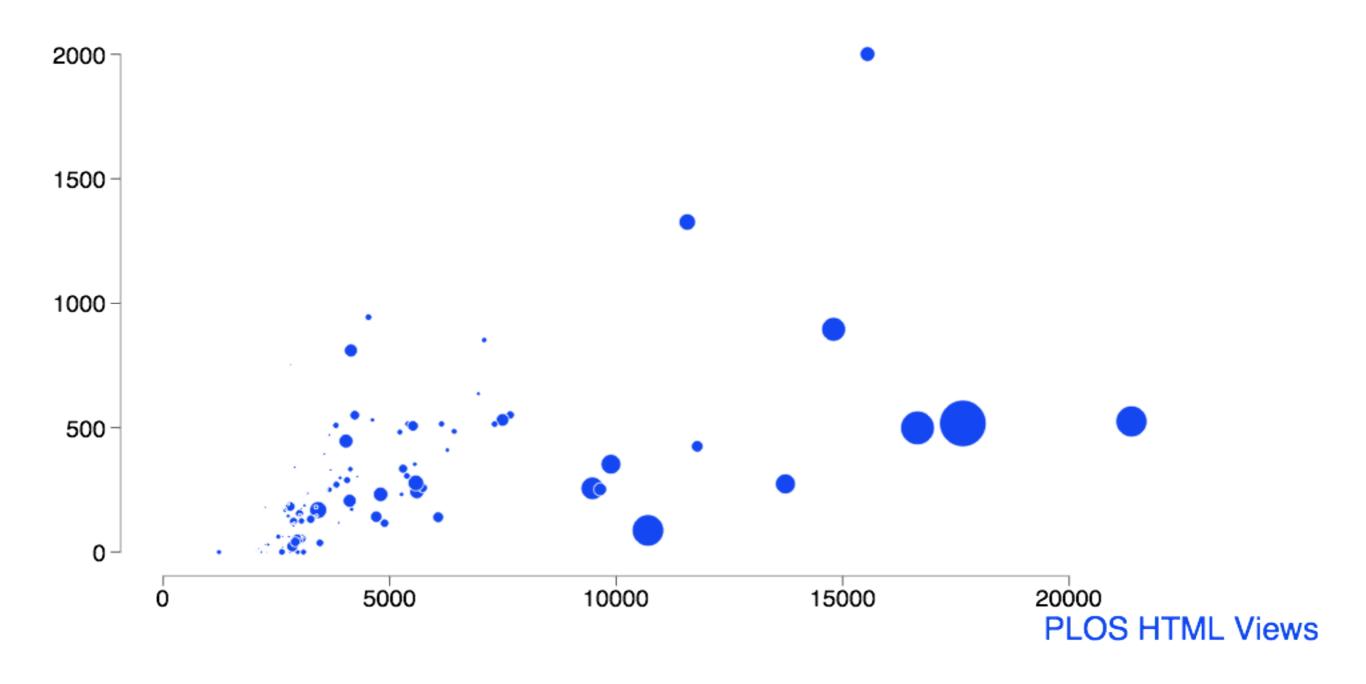




### PLOS Medicine Research Articles Aug 2011 to Aug 2012

HTML views PLOS website vs. PubMed Central for reserch articles published between 08/16/11 and 08/15/12. Bubble size correlates with Facebook Likes/Shares/Comments. Data collected 08/24/12.

#### **PubMed Central HTML Views**

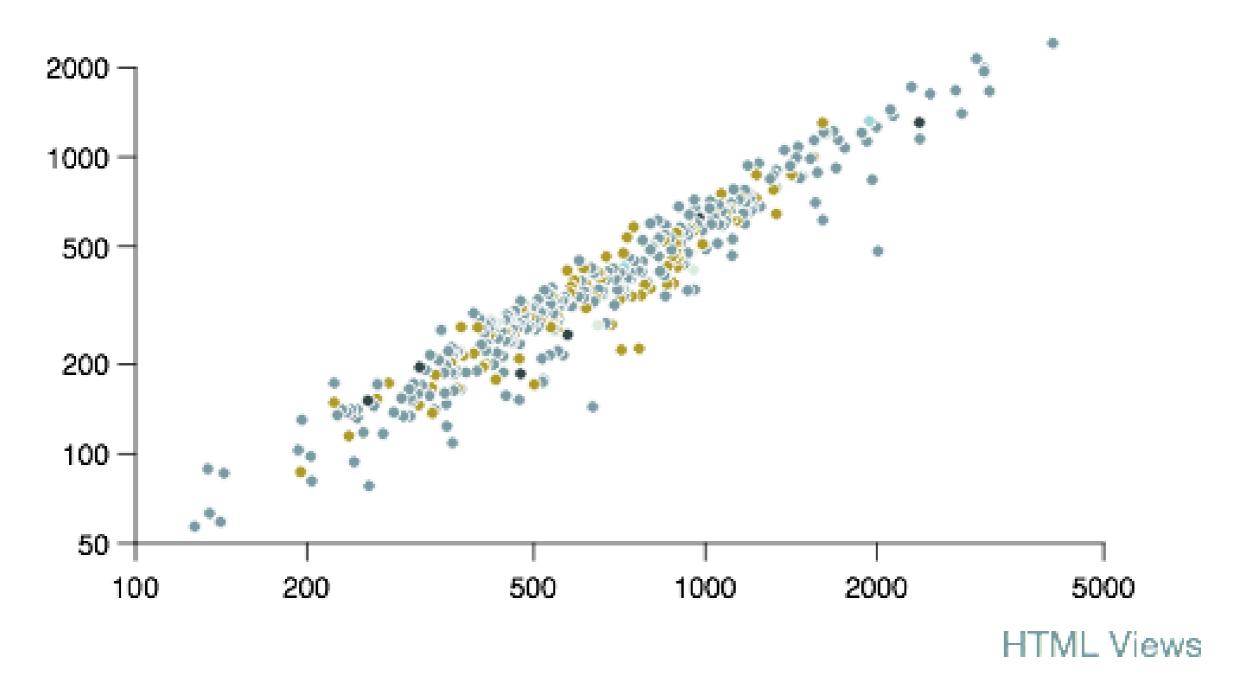




## HTML views correlate with PDF downloads

Usage data from PubMed Central for all 384 PLoS articles in the subject category Cancer Genetics. Log-log scale. Colors represent journals (PLoS ONE blue, PLoS Genetics green).

PDF Downloads



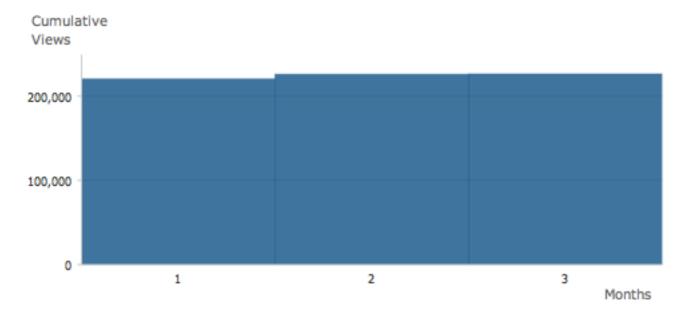


#### Quantifying the Clinical Significance of Cannabis Withdrawal

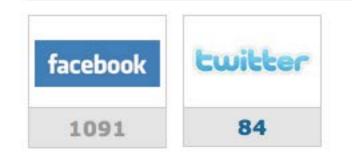
Related Content Commen	s: 4
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#### Article Usage 🕕

Total Article Views		HTML Page Views	PDF Downloads	XML Downloads	Totals					
226,475	PLoS	225,575	772	22	226,369					
Sep 26, 2012 (publication date)	PMC	75	31	n.a.	106					
through Nov 12, 2012*	Totals	225,650	803	22	226,475					
	0.369	0.36% of article views led to PDF downloads								



#### Social Networks ()





## Reddit as a driver for HTML views

reddit is a source for what's new and popular online. vote on links that you like or dislike and help decide what's popular, or submit your own! learn more >

Cannabis withdrawal real, new study quantifies it's clinical significance. (plosone.org)

1693 Eingereicht vor 1 Monat von DarwinDanger

**2516** Kommentare Weitersagen

#### Top 200 Kommentare zeige 500

sortiert nach: beste

[-] Comment removed 1 Monat zuvor

- [-] CheesemooG 81 Punkte 1 Monat zuvor
- I quit when i was looking for a job. when I quit I would have dreams where I would get high. I'd wake up with a feeling of having succumbed and wanted to go get high. it was quite hard to tell if it was a memory or a dream.

Permalink Übergeordnet

- [-] MomoMoana 44 Punkte 1 Monat zuvor
- Dem panics of "Oh shit! Did I really just do that? Oh wait, just a dream"

Permalink Übergeordnet

[-] [deleted] 28 Punkte 1 Monat zuvor

This is fucking hilarious. Same exact thing happened to me. The weird, lucid dreaming was awesome, but the paranoia of smoking in a dream was so real.

Permalink Übergeordnet

- ▲ [-] Katie1230 12 Punkte 1 Monat zuvor
- + At least you can still get dream high.

Permalink Übergeordnet

Mehr Kommentare laden (2 Antworten)



## PLOS ALM Usage Patterns

"Scholarly User"	"Broader Impact"
PDF Downloads	HTML Views
PubMed Central	PLOS Website
Citations	Facebook, Twitter



### **Popularity of the Ten Simple Rules Collection**

PDF downloads (open circles), HTML pageviews (closed circles), and Mendeley readers (numbers on the right) for 23 editorials in PLoS Computational Biology. Articles are sorted by descending age.

Ten Simple Rules for Getting Published		••••		• •		58
Ten Simple Rules for Reviewers	•••••	•				182
Ten Simple Rules for Getting Grants	••••••		•			251
Ten Simple Rules for Graduate Students	0	•				66
Ten Simple Rules for Doing Your Best Research, According to Hamming	•••••	•				241
Ten Simple Rules for a Good Poster Presentation	•••••••••••••••••••••••••••••••••••••••			•		265
Ten Simple Rules for Making Good Oral Presentations	····· ¢	,		•		17
Ten Simple Rules for a Successful Collaboration	• • • •	•				51
Ten Simple Rules for Organizing a Scientific Meeting	0					90
Ten Simple Rules for Aspiring Scientists in a Low-Income Country	• • • • •	•				69
Ten Simple Rules for Chairing a Scientific Session	• •					18
Ten Simple Rules for Choosing between Industry and Academia	• • •	•				97
Ten Simple Rules To Combine Teaching and Research	•					138
Ten Simple Rules for Editing Wikipedia	• •	•				62
Ten Simple Rules for Organizing a Virtual ConferenceÂAnywhere	•					44
Ten Simple Rules for Developing a Short Bioinformatics Training Course	• • •					42
Ten Simple Rules for Getting Involved in Your Scientific Community	• •					33
Ten Simple Rules for Teaching Bioinformatics at the High School Level	•••					
Ten Simple Rules for Getting Help from Online Scientific Communities						68
Ten Simple Rules for Building and Maintaining a Scientific Reputation $\cdot$	• • •	•				173
Ten Simple Rules for Providing a Scientific Web\nResource	• • • •					15
Simple Rules for Getting Ahead as a Computational Biologist in Academia $\cdot$	•	•				10
Ten Simple Rules for Starting a Company	•••••	•				
	-		1	1		
	0	20000	40000	60000	80000	

**Total Article Views** 

Mendeley

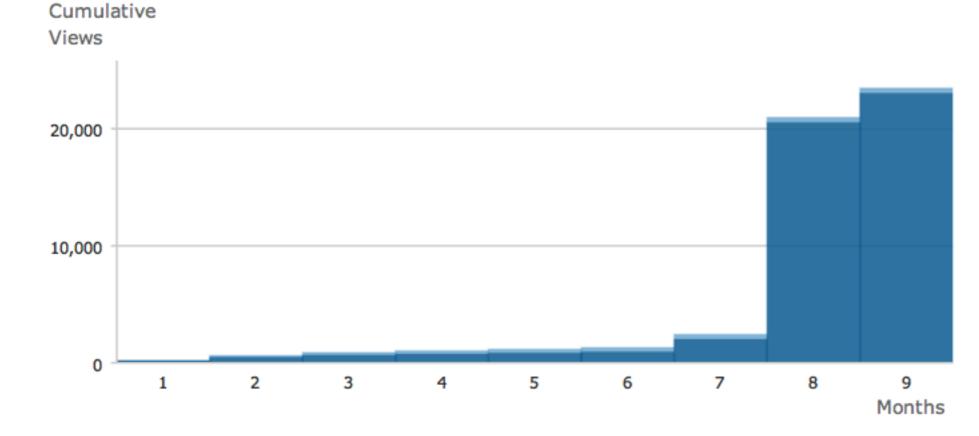


Ten

## Gaming and Spam

### Article Usage 🕕

Total Article Views		HTML Page Views	PDF Downloads	XML Downloads	Totals
23,475	PLoS	22,683	283	60	23,026
Jan 26, 2012 (publication date)	РМС	276	173	n.a.	449
through undefined NaN, NaN*	Totals	22,959	456	60	23,475



\*Although we update our data on a daily basis, there may be a 48-hour delay before the most recent numbers are available. PMC data is posted on a monthly basis and will be made available once received.





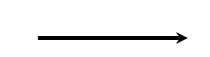
Open Access Infrastructure for Research in Europe

Identify Open Access articles published by PLOS, funded by the European Commission Seventh Framework Programme (FP7)

Match articles with grant numbers

Show the impact of these publications

PLOS Search API 2562 Articles



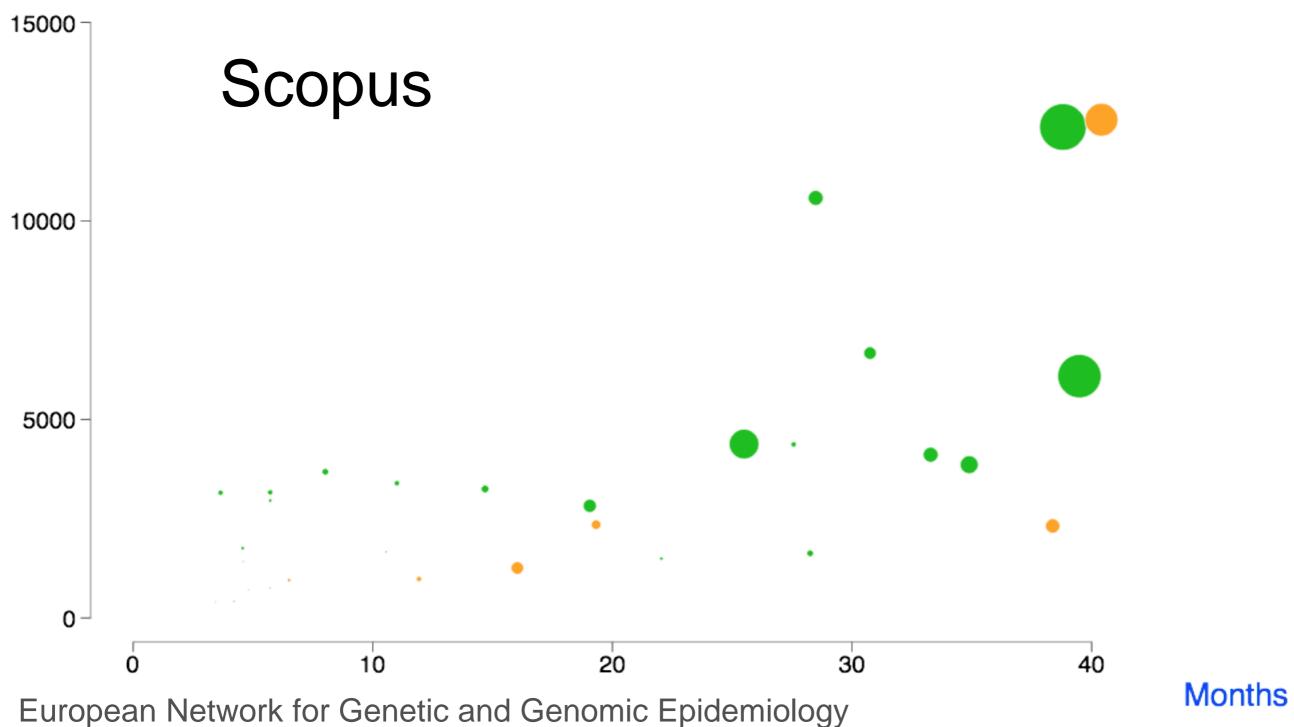




### **PLOS Publications from the EU-funded ENGAGE Project**

Total views are combined HTML views and PDF downloads from the PLOS website. Bubble size correlates with Scopus citations, and bubble color with the PLOS journal. Data collected September 19, 2012.

#### **Total Views**



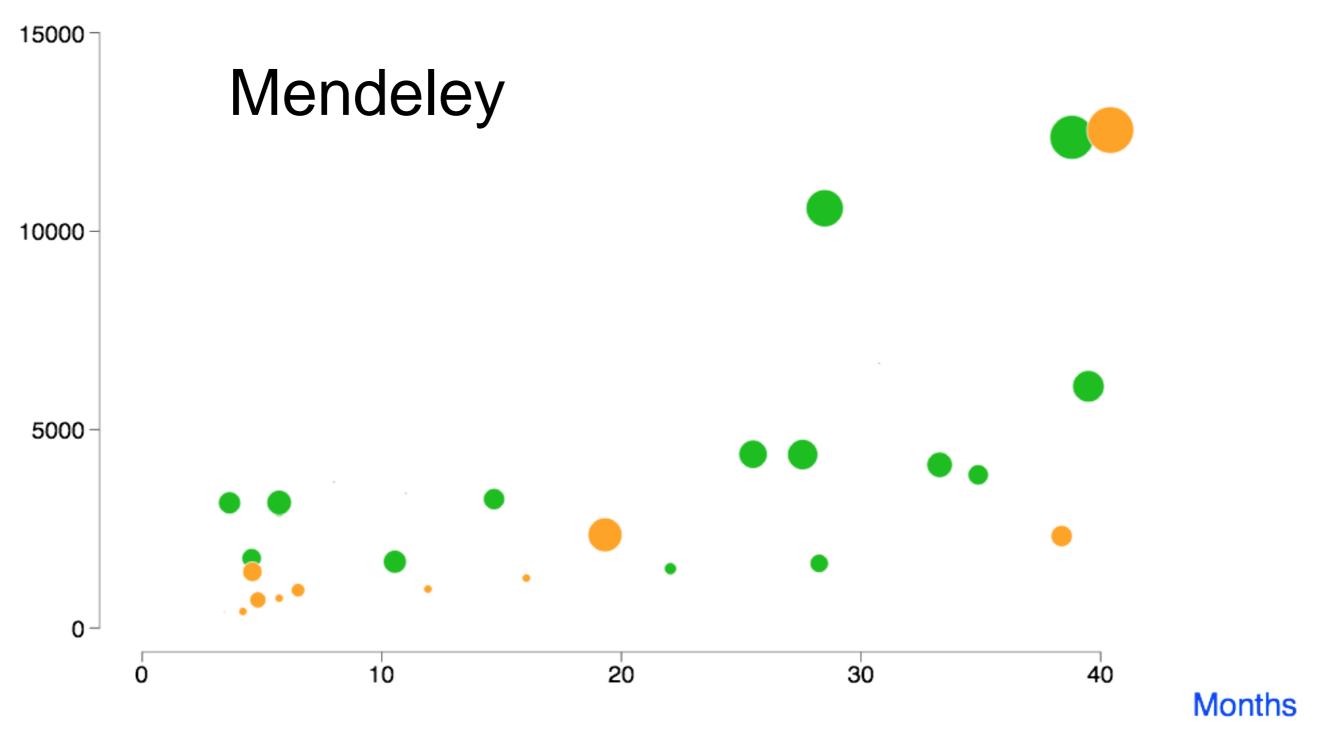
http://www.openaire.eu/en/component/openaire/project\_info/default/530?grant=201413



### **PLOS Publications from the EU-funded ENGAGE Project**

Total views are combined HTML views and PDF downloads from the PLOS website. Bubble size correlates with Mendeley bookmarks, and bubble color with the PLOS journal. Data collected September 19, 2012.

**Total Views** 





## Author locations from the ENGAGE project First authors (blue) and last authors (green).

