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Open Access MegaJournals

SPARC Japan

Feb 2012

Peter Binfield
Publisher, PLoS ONE

pbinfield@plos.org
@p_binfield

The Public Library of Science

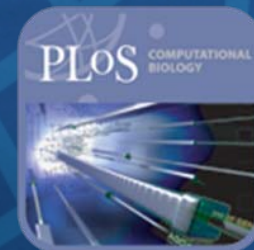
- An organization since Oct 2000 & a publisher since Oct 2003
- The publisher of 7 Open Access journals
as well as PLoS Blogs, PLoS Currents, and PLoS Hubs
- The largest not-for-profit Open Access publisher
 - One of the 'big three' OA publishers (with Hindawi & BioMedCentral)
 - The only major 'US based' OA publisher
- Based in San Francisco, and Cambridge UK
 - Approx 120 people total
- Self Sustaining since late 2010

PLoS Biology

October, 2003

PLoS Medicine

October, 2004



PLoS Community Journals

June-September, 2005

& October, 2007 (NTDs)

PLoS ONE

December, 2006



Open Access MegaJournals



Bookmarks Science Recovery Expert View Chemistry Equ Search Genomics
Interdisciplinary
Computational Biology Public Library of Science Online
Article-Level Metrics
Impact Efficiency Global Evolutionary Biology
Molecular Biology Paleontology



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Accelerating the publication of peer-reviewed science

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Rapid

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Connections Infectious Diseases Community Discussion Inclusive
Cell Biology International
Revolutionary Microbiology
Creative Commons Quality

PLoS ONE's Key Innovation – The editorial process

- Editorial criteria
 - Scientifically rigorous
 - Ethical
 - Properly reported
 - Conclusions supported by the data
- Editors and reviewers do **not** ask
 - How important is the work?
 - Which is the relevant audience?
- Use online tools to sort and filter scholarly content after publication, not before



A 'First Choice' Journal

In our survey of 2010 authors, we were the

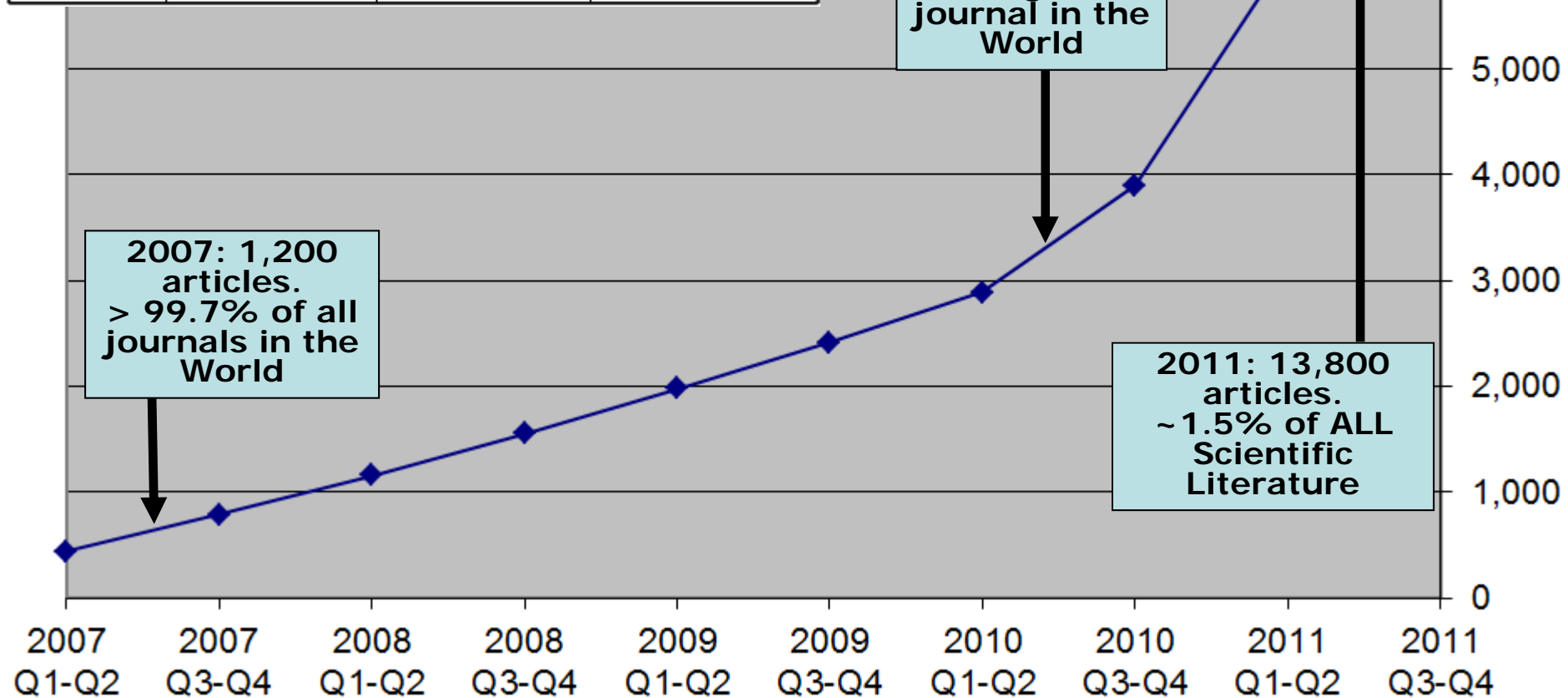
- 1st choice journal for: 41% of all authors
- 1st or 2nd choice journal for: 73% of all authors
- 1st, 2nd, or 3rd choice for: 92% of all authors

“How would you characterize your overall experience publishing in PLoS ONE?”

1 (“one of the best experiences I have ever had”)	38%
2	51% (= 89% total)
3 (acceptable)	9%
4	2%
5 (“one of the worst experiences I have ever had”)	1%

PLoS ONE Published Articles

Year	Submissions	Publications	% of annual PubMed
2007	2,497	1,231	0.16%
2008	4,401	2,723	0.34%
2009	6,819	4,404	0.52%
2010	13,845	6,749	0.84%
2011	25,863	13,784	~1.5%



Features of Open Access MegaJournals

- Open Access (!)
- Covers a very broad subject area or is 'multidisciplinary'
- Peer-reviewed for rigour not "impact"
- Uses post-publication evaluation mechanisms (e.g. article-level metrics)
- Supported by a revenue source which covers the cost of each individual article (typically APC fees)
- Scalable, and can become very large

The Inherent Advantages of a MegaJournal

- You only need to be indexed once (e.g. MedLine, WoS)
- Authors only need to be reviewed / evaluated once
- The journal attracts high usage / high visibility
- Size encourages repeat authorship / reduces the need for 'journal hopping'
- Many aspects of the journal can be 'consolidated' (e.g. one blog, one twitter stream, one marketing plan)
- Economies of scale make the journal more efficient
- In an Author Pays OA model, there is no economic reason for artificially limiting the size of a journal
- Subjective filtering **before** publication is an outdated approach to determining quality
- Provides a 'healthier' publishing environment for authors
- The journal has the opportunity to set consistent standards which may become de facto standards in it's field

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Some Recent Launches of PLoS ONE 'clones'

- G3 (Genetics Society of America) - \$1,650 / \$1,950
- BMJ Open - £1,200
- Scientific Reports (Nature Publishing Group) - \$1,350
- AIP Advances (American Institute of Physics) - \$1,350
- Biology Open (Company of Biologists) - \$1,350
- Springer Plus - \$ 1,080
- TheScientificWorldJOURNAL (Hindawi) - \$1,000
- QScience Connect (Bloomsbury Qatar Foundation) - \$995
- SAGE Open - \$ 695
- F1000 Research - \$?

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- F1000 Research - \$?

Collectively, these will represent...

"a very large compendium of papers that have been vetted for scientific quality, but which will not be confined in terms of their likely importance."

Harold Varmus, Oct 2005

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"a very large compendium of papers that have been vetted for scientific quality, but which will not be confined in terms of their likely importance."

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So, how could we measure 'importance'?

- Scholarly Citations
- Web usage
- Social bookmarking
- Social citations
- Community ratings
- Expert Ratings
- Media/blog coverage
- Commenting activity
- and more...

Current technology now makes it possible to measure many of these with...



RESEARCH ARTICLE

OPEN ACCESS

Featured in [PLoS Hub for Clinical Trials](#)

Systematic Review of the Empirical Evidence of Study Publication Bias and Outcome Reporting Bias

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Metrics

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Kerry Dwan^{1*}, Douglas G. Altman², Juan A. Arnaiz³, Jill Bloom⁴, An-Wen Chan⁵, Eugenia Cronin⁶, Evelyne Decullier⁷, Philippa J. Easterbrook⁸, Erik Von Elm^{9,10}, Carrol Gamble¹, Davina Ghera¹¹, John P. A. Ioannidis^{12,13}, John Simes¹⁴, Paula R. Williamson¹

1 Centre for Medical Statistics and Health Evaluation, University of Liverpool, Liverpool, United Kingdom, **2** Centre for Statistics in Medicine, University of Oxford, Oxford, United Kingdom, **3** Clinical Pharmacology Unit, UASP Hospital Clínic, Barcelona, Spain, **4** Moorfields Eye Hospital, London, United Kingdom, **5** Randomized Controlled Trials Unit, Canadian Institutes of Health Research, Ottawa, Canada, **6** Healthier Communities/Public Health, Greenwich Council, London, England, **7** Clinical Epidemiology Unit, DIM-Hospices Civils de Lyon, Lyon, France, **8** Department of HIV/GUM, King's College London, London, United Kingdom, **9** Institute of Social and Preventive Medicine, University of Bern, Bern, Switzerland, **10** German Cochrane Centre, Department of Medical Biometry and Medical Informatics, University Medical Centre Freiburg, Freiburg, Germany, **11** NHMRC Clinical Trials Centre, Camperdown, Australia, **12** Department of Hygiene and Epidemiology, University of Ioannina School of Medicine, Ioannina, Greece, **13** Institute for Clinical Research and Health Policy Studies, Department of Medicine, Tufts Medical Center, Tufts University School of Medicine, Boston, Massachusetts, United States of America, **14** National Health and Medical Research Council (NHMRC) Clinical Trials Centre, University of Sydney, Sydney, Australia

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Background

The increased use of meta-analysis in systematic reviews of healthcare interventions has highlighted several types of bias that can arise during the completion of a randomised controlled trial. Study publication bias has been recognised as a potential threat to the validity of meta-analysis and can make the readily available evidence unreliable for decision making. Until recently, outcome reporting bias has received less attention.

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Systematic Review of the Empirical Evidence of Study Publication Bias and Outcome Reporting Bias

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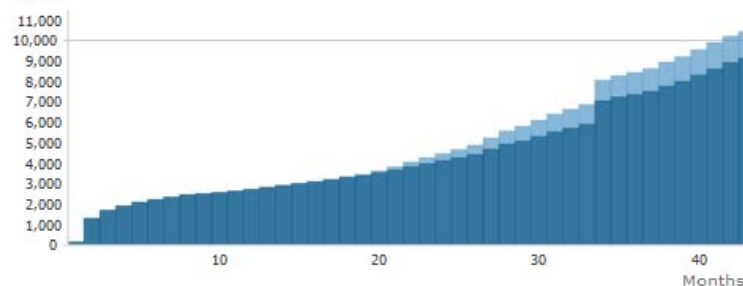
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Reliability	☆☆☆☆☆	
Style	☆☆☆☆☆	
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Johan Bollen, Herbert van de Sompel, Aric Hagberg, Luis Bettencourt, Ryan Chute, Marko A. Rodriguez, Lyudmila Balakireva

– *Oncology*". The JCR and Dewey Classification codes were

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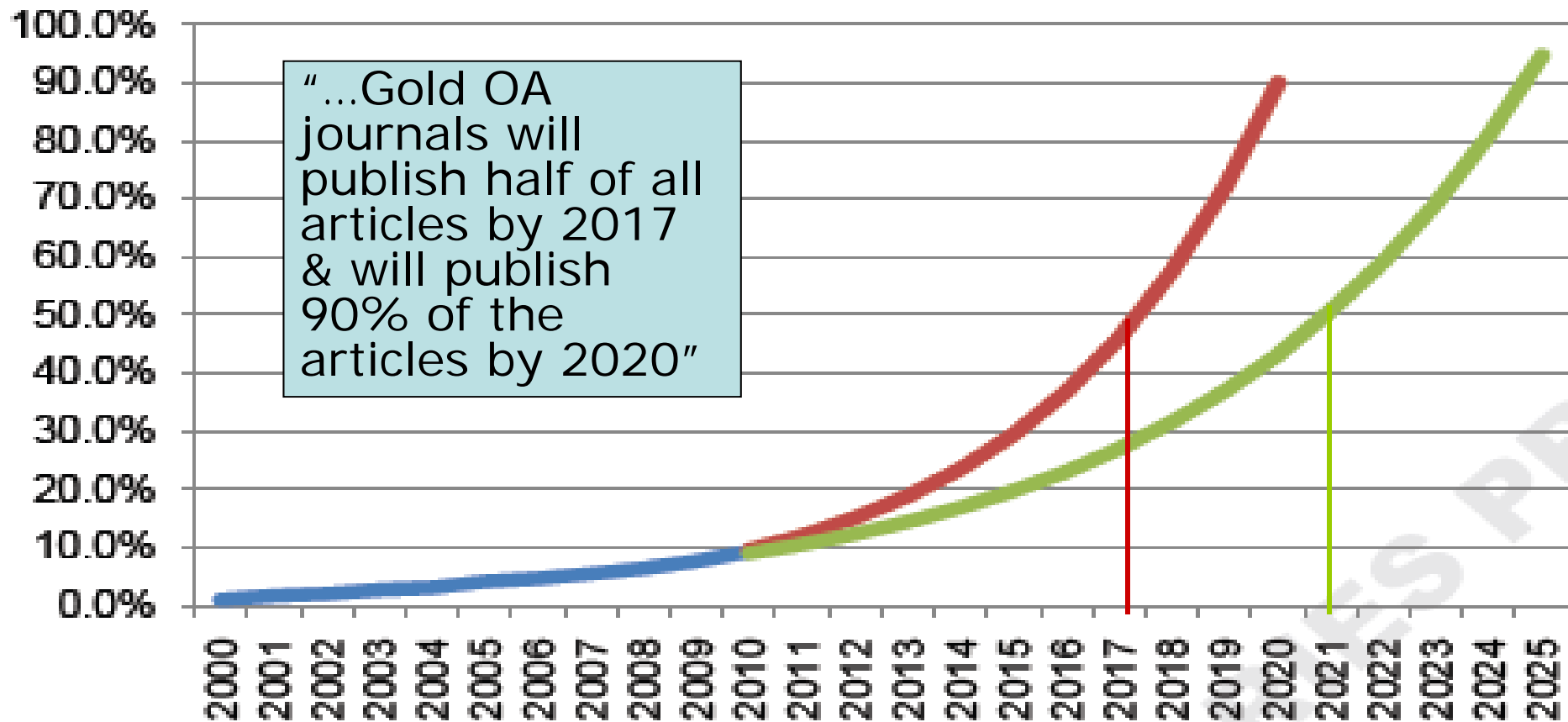
[Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, Massachusetts, United](#)

Being a MegaJournal - Open Questions

- Can we develop better tools to measure 'impact'?
- When you are publishing 3%, 5%, 10% of the literature, are you really a journal any more?
- When you are publishing (much) more than your entire organization combined, how do you interact with that organization?
- Does the publisher truly believe in the success of their MegaJournal?
- When we reach a point with just a few, very large, MegaJournals how will they differentiate themselves?
- And what will that future mean for the current journal ecosystem?

"The Inevitability of Open Access"

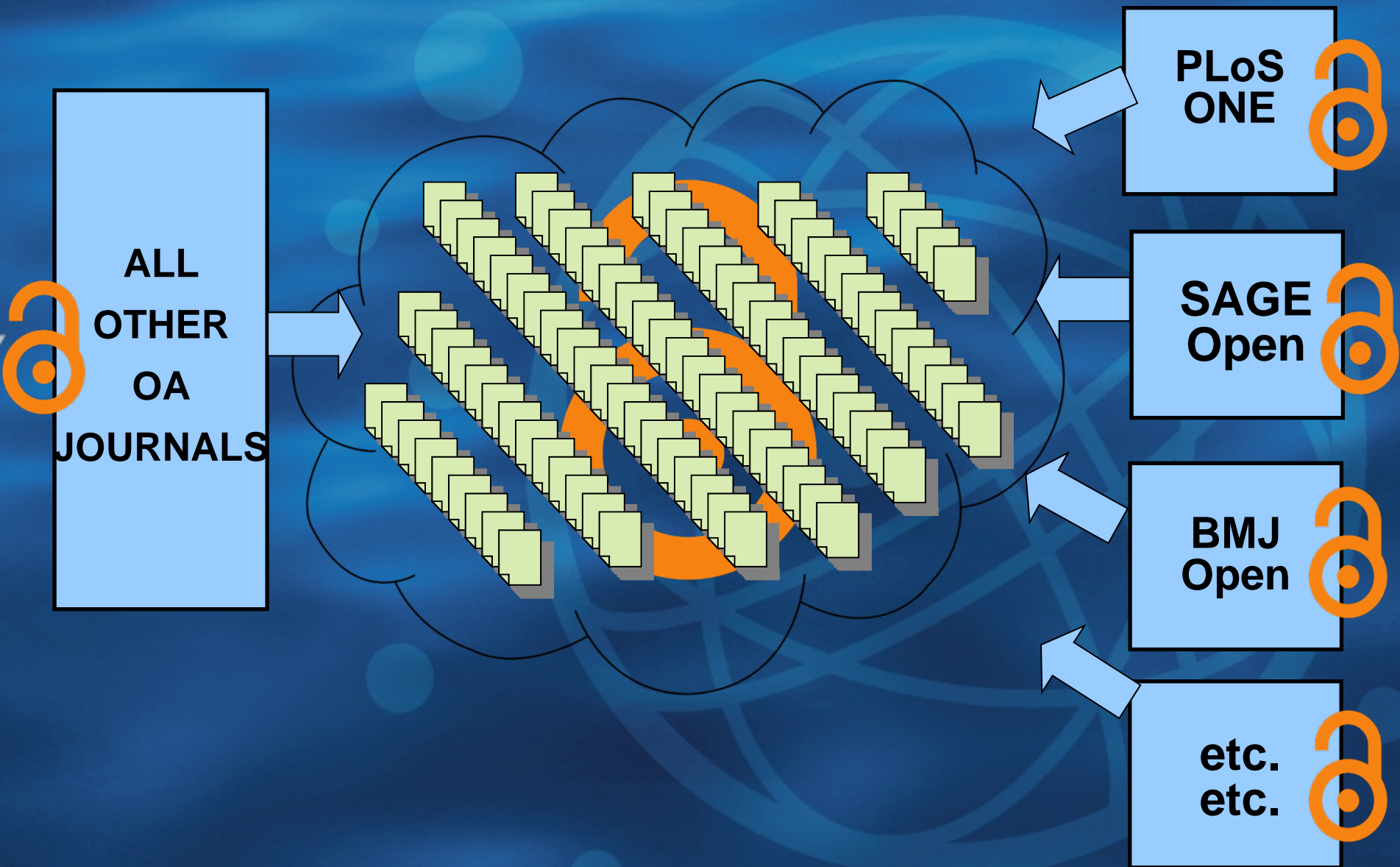
Figure3: Pace of Substitution of Direct Gold OA for Subscription Journals (normal scale)



"The Inevitability of Open Access", David Lewis. College and Research Libraries.

<http://crl.acrl.org/content/early/2011/09/21/crl-299.full.pdf+html>

An OA future containing MegaJournals



Summary

- Subjective measurement of 'impact' and the objective Technical Assessment **can be** separated in a successful publication
- Post-publication mechanisms **can be** used to enhance content
- OA MegaJournals are here to stay
- The publication landscape is on the verge of irreversible change
- Research communication (and hopefully) research itself will be accelerated

ありがとうございます。

Peter Binfield

Publisher, PLoS ONE and the Community Journals

<http://www.plos.org>

email: pbinfield@plos.org

twitter: [@p_binfield](https://twitter.com/p_binfield)

Appendix Slides

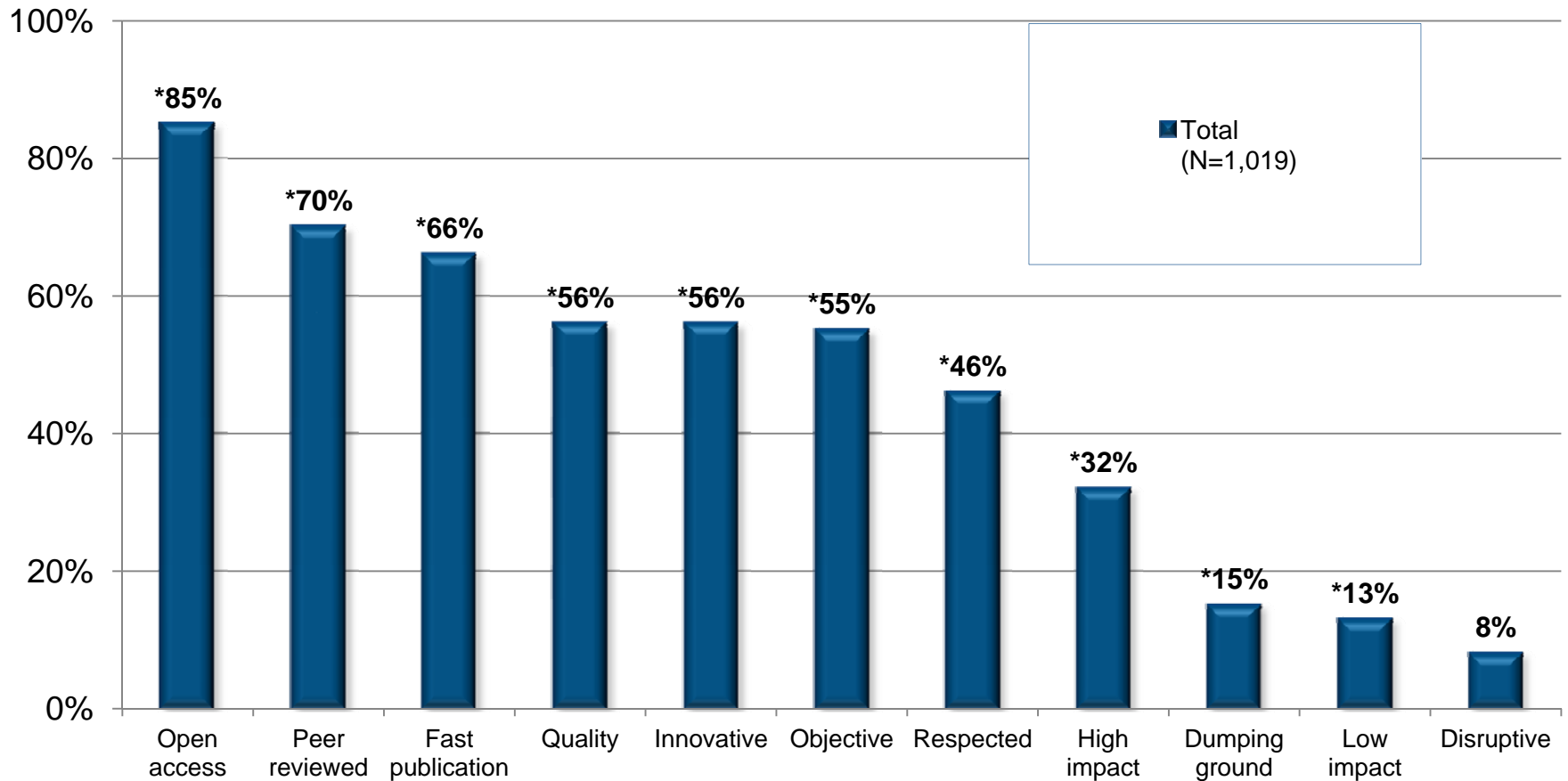
PLoS ONE Rejection Rate: ~30-35%

TABLE 1
Rates of Rejecting Manuscripts for Publication in
Scientific and Humanistic Journals, 1967

	Mean rejection rate (%)	No. of journals
History	90	3
Language and literature	86	5
Philosophy	85	5
Political science	84	2
Sociology	78	14
Psychology (excluding experimental and physiological)	70	7
Economics	69	4
Experimental and physiological psychology	51	2
Mathematics and statistics	50	5
Anthropology	48	2
Chemistry	31	5
Geography	30	2
Biological sciences	29	12
Physics	24	12
Geology	22	2
Linguistics	20	1
Total		83

Zuckerman & Merton's "Patterns of Evaluation in Science: Institutionalization, Structure and Functions of the Referee System" (1971).

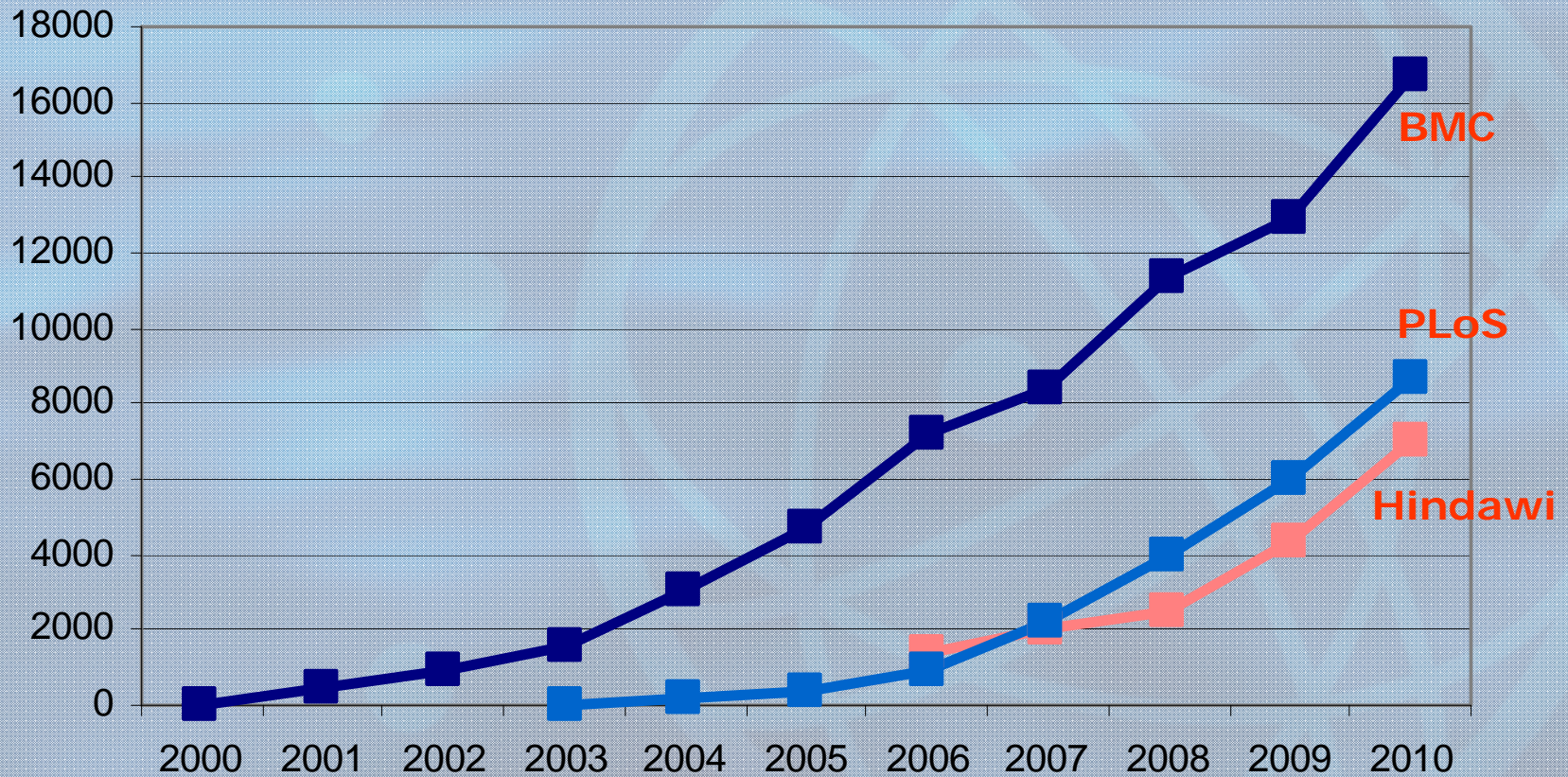
Among those familiar with PLoS ONE they see it as highly correlated with **open access**, **peer reviewed** and **fast publication**

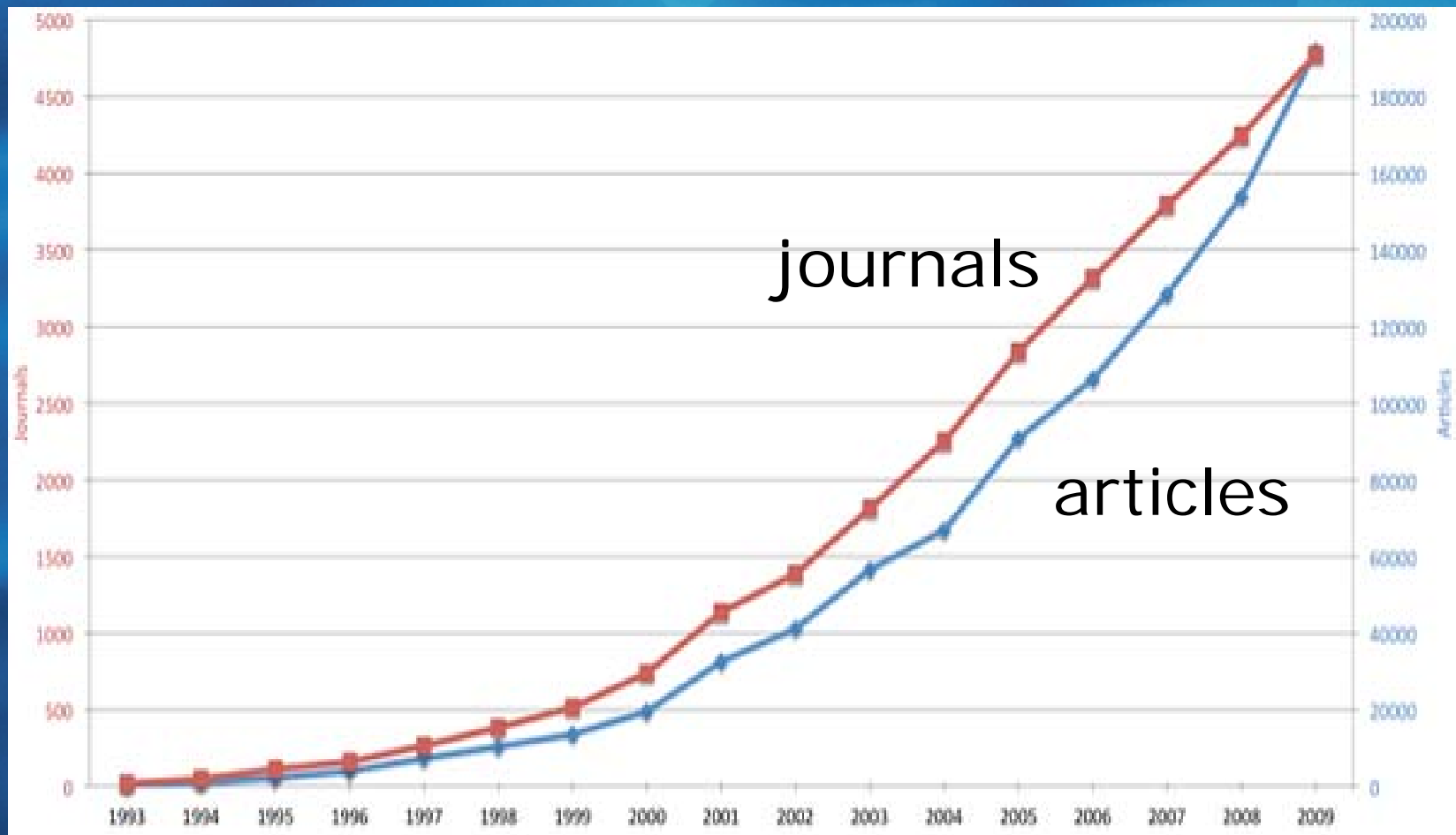


Q17 Top 2 Box: How well does each word or phrase fit with PLoS ONE?
(Based to those who are familiar with PLoS ONE)
Significant difference at 95% confidence level

Scale 5 = Fits extremely well, 1 = Does not fit

Growth in three OA publishers (publications per year)





In 2009, 7.7% of all peer-reviewed articles were gold OA

Laakso M, et al. et al. (2011) The Development of Open Access Journal Publishing from 1993 to 2009. PLoS ONE 6(6): e20961. doi:10.1371/journal.pone.0020961

Some Regional Statistics

- Current Proportions of Submissions (corresponding authors)
 - US = 31%
 - China = 12% (fluctuating)
 - Germany = 6%
 - UK = 5%
 - France, Japan = 4%
 - Italy, Holland, Spain = 3%