

Re-imagining Research Impact in the Open Knowledge Environment

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Out of the e-box ?



New ways of thinking about "impact"

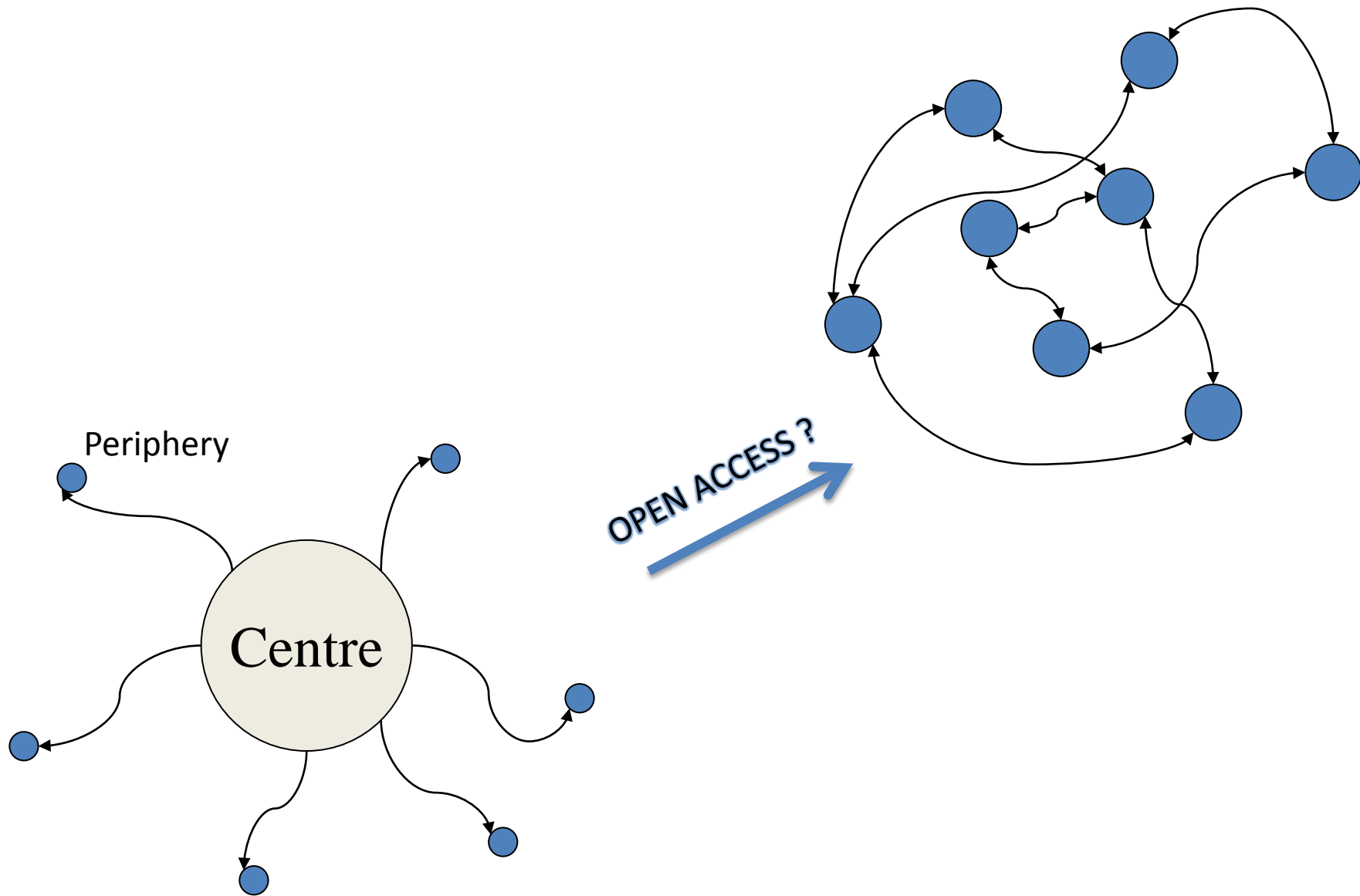
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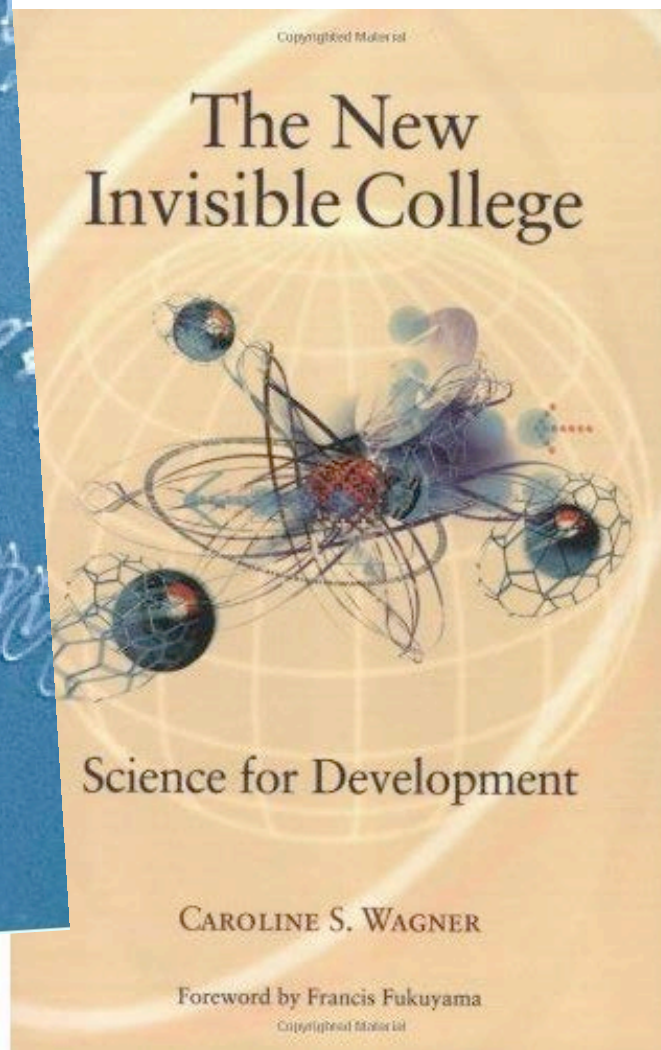
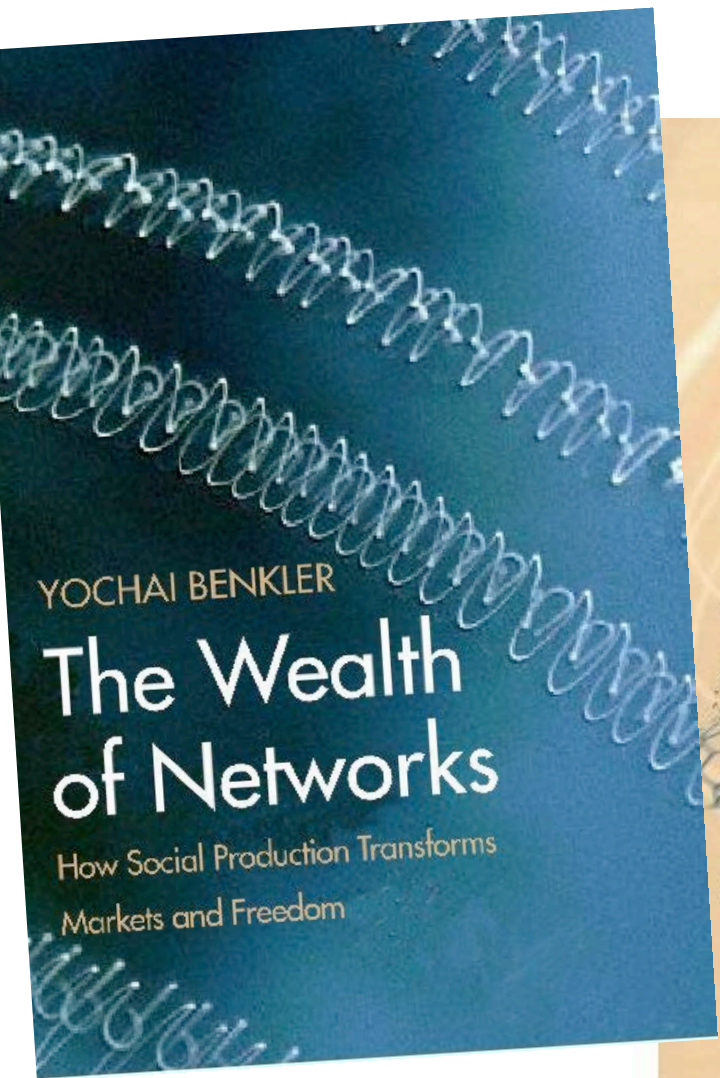
Open Access

Networked Scholarship



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From “Big”
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Networked
science

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local problem
solving



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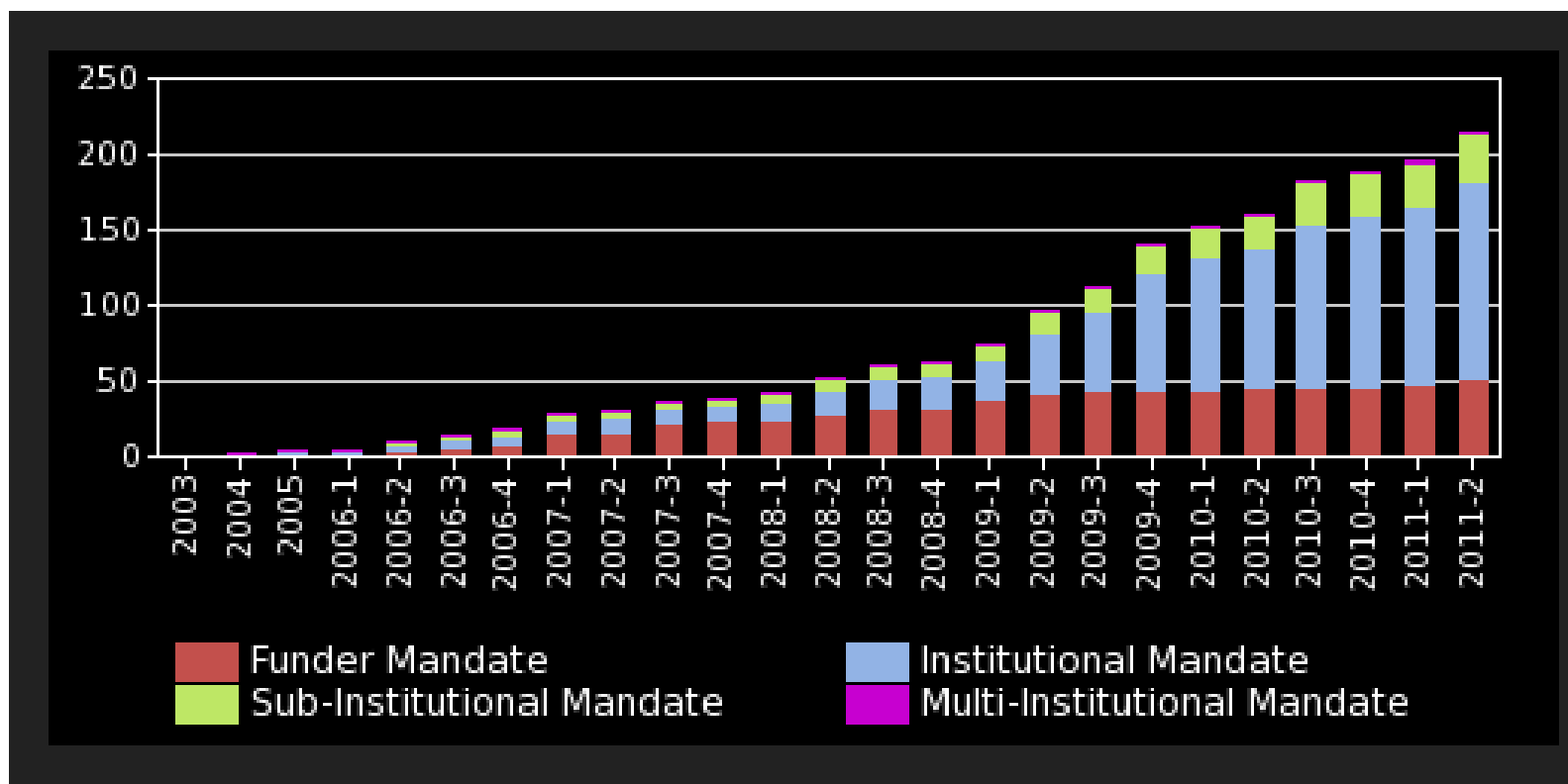
SciELO The Scientific Electronic Library Online (**SciELO**) **SA** is South Africa's premier open-access (free to access and free to publish) searchable full-text journal database in service of the South African research community. The database covers a selected collection of peer-reviewed South African scholarly journals and forms an integral part of the [SciELO Brazil](#) project. SciELO SA is managed by the Academy of Science of South Africa ([ASSAF](#)), funded by the South African Department of Science and Technology and endorsed by the South African Department of Higher Education and Training (DHET).

about this site **SciELO SA** focuses on strengthening the scholarly journal evaluation and accreditation systems in South Africa.

The SciELO library is an integral part of a project being developed by [FAPESP](#) - Fundação de Amparo à Pesquisa do Estado de São Paulo, in partnership with [BIREME](#) - the Latin American and Caribbean Center on Health Sciences Information. Since 2002, the Project is also supported by [CNPq](#) - Conselho Nacional de Desenvolvimento Científico e Tecnológico.

→ SciELO contributes to the development of national capacities in scientific editing and publishing to be on par with the international state of the art. The project aims to make visible the science of developing countries that the mainstream does not provide for this scientific communication.

Institutional and Funder Mandates



Policy Developments

- The World Bank launched an institutional repository and adopted an OA mandate on April 10, 2012
- UNESCO published an OA Policy Guidelines in March 2012
- UK, EU, and the USA are all developing major funding policies on OA

BOAI
10



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Ten years on from the Budapest Open Access Initiative: setting the default to open

Prologue: The Budapest Open Access Initiative after 10 years

Ten years ago the Budapest Open Access Initiative launched a worldwide campaign for open access (OA) to all new peer-reviewed research. It didn't invent the idea of OA. On the contrary, it deliberately drew together existing projects to explore how they might "work together to achieve broader, deeper, and faster success." But the BOAI was the first initiative to use the term "open access" for this purpose, the first to articulate a public definition, the first to propose complementary strategies for realizing OA, the first to generalize the call for OA to all disciplines and countries, and the first to be accompanied by significant funding.

Today we're no longer at the beginning of this worldwide campaign, and not yet at the end. We're solidly in the middle, and draw upon a decade of experience in order to make new recommendations for the next ten years.

We reaffirm the BOAI "statement of principle,...statement of strategy, and...statement of commitment." We reaffirm the aspiration to achieve this "unprecedented public good" and to "accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge."

We reaffirm our confidence that "the goal is attainable and not merely preferable or utopian." Nothing from the last ten years has made the goal less attainable. On the contrary, OA is well-established and growing in every field. We have more than a decade's worth of practical wisdom on how to implement OA. The technical, economic, and legal feasibility of OA are well-tested and well-documented.



<http://www.soros.org/openaccess/boai-10-recommendations>

“Ten years of experience lead us to reaffirm the definition of OA introduced in the original BOAI:

By “open access” to [peer-reviewed research literature], we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to **give authors control over the integrity of their work and the right to be properly acknowledged and cited.**”



- OA benefits research and researchers, and the lack of OA impedes them.
- OA for publicly-funded research benefits taxpayers and increases the return on their investment in research. It has economic benefits as well as academic or scholarly benefits.
- OA amplifies the social value of research, and OA policies amplify the social value of funding agencies and research institutions.
- The costs of OA can be recovered without adding more money to the current system of scholarly communication.
- OA is consistent with copyright law everywhere in the world, and gives both authors and readers more rights than they have under conventional publishing agreements.
- OA is consistent with the highest standards of quality.

- **1.5.** We **discourage the use of journal impact factors** as surrogates for the quality of journals, articles, or authors. We encourage the development of alternative metrics for impact and quality which are less simplistic, more reliable, and entirely open for use and reuse.
- We encourage **research on the accuracy of the new metrics**. As the research shows them to be useful and trustworthy, we encourage their use by universities (when evaluating faculty for promotion and tenure), funding agencies (when evaluating applicants for funding), research assessment programs (when assessing research impact), and publishers (when promoting their publications).

<http://www.soros.org/openaccess/boai-10-recommendations>

- 3.14. We encourage experiments with **new forms of the scholarly research “article” and “book”** in which texts are integrated in useful ways with underlying data, multimedia elements, executable code, related literature, and user commentary.
- We encourage experiments to **take better advantage of the digital medium, and digital networks**, for the benefit of research.

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The Impact Factor Game

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It is time to find a better way to assess the scientific literature

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Show me the data

Mike Rossner¹, Heather Van Epps², and Emma Hill³

+ Author Affiliations

Correspondence to Mike Rossner: rossner@rockefeller.edu

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"My question is: Are we making an impact?"

The integrity of data, and transparency about their acquisition, are vital to science. The impact factor data that are gathered and sold by Thomson Scientific (formerly the Institute of Scientific Information, or ISI) have a strong influence on the scientific community, affecting decisions on where to publish, whom to promote or hire (1), the success of grant applications (2), and even salary bonuses (3). Yet, members of the community seem to have little understanding of how impact factors are determined, and, to our knowledge, no one has independently audited the underlying data to validate their reliability.

<http://jcb.rupress.org/content/179/6/1091.full>

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Joint Committee on Quantitative Assessment of Research

Citation Statistics

*A report from the International Mathematical Union (IMU) in
cooperation with the International Council of Industrial and
Applied Mathematics (ICIAM) and the Institute of Mathematical
Statistics (IMS)*

Robert Adler, John Ewing (Chair), Peter Taylor

6/11/2008

<http://www.mathunion.org/fileadmin/IMU/Report/CitationStatistics.pdf>



RETRACTED SCIENCE AND THE RETRACTION INDEX

Ferric C. Fang¹ and Arturo Casadevall²

¹ Editor in Chief, *Infection and Immunity*; Departments of Laboratory Medicine Microbiology, University of Washington School of Medicine, Seattle, WA, 98

² Editor in Chief, *mBio*; Departments of Microbiology & Immunology and Me Einstein College of Medicine, Bronx, NY 10461.

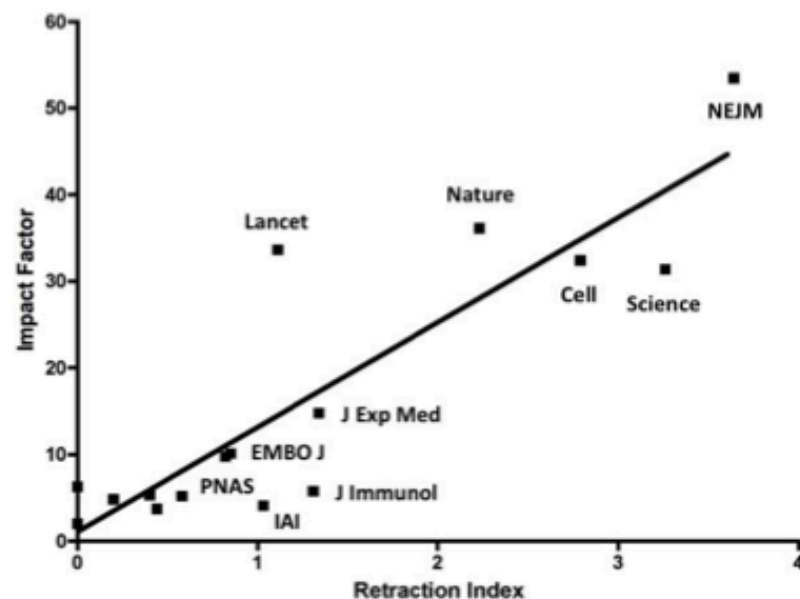


Figure 1. Correlation between Impact Factor and Retraction Index. The 2010 journal impact factor (46) is plotted against the retraction index as a measure of the frequency of retracted articles from 2001-2010 (see text for details). Journals analyzed were *Cell*, *EMBO Journal*, *FEMS Microbiology Letters*, *Infection and Immunity*, *Journal of Bacteriology*, *Journal of Biological Chemistry*, *Journal of Experimental Medicine*, *Journal of Immunology*, *Journal of Infectious Diseases*, *Journal of Virology*, *Lancet*, *Microbial Pathogenesis*, *Molecular Microbiology*, *Nature*, *New England Journal of Medicine*, *PNAS* and *Science*.

<http://iai.asm.org/content/early/2011/08/08/IAI.05661-11.full.pdf+html?view=long&pmid=21825063>

The weakening relationship between the Impact Factor and papers' citations in the digital age

George A. Lozano, Vincent Lariviere, Yves Gingras

(Submitted on 19 May 2012)

Historically, papers have been physically bound to the journal in which they were published but in the electronic age papers are available individually, no longer tied to their respective journals. Hence, papers now can be read and cited based on their own merits, independently of the journal's physical availability, reputation, or Impact Factor. We compare the strength of the relationship between journals' Impact Factors and the actual citations received by their respective papers from 1902 to 2009. Throughout most of the 20th century, papers' citation rates were increasingly linked to their respective journals' Impact Factors. However, since 1990, the advent of the digital age, the strength of the relation between Impact Factors and paper citations has been decreasing. This decrease began sooner in physics, a field that was quicker to make the transition into the electronic domain. Furthermore, since 1990, the proportion of highly cited papers coming from highly cited journals has been decreasing, and accordingly, the proportion of highly cited papers not coming from highly cited journals has also been increasing. Should this pattern continue, it might bring an end to the use of the Impact Factor as a way to evaluate the quality of journals, papers and researchers.

Comments: 14 pages, 5 figures

Subjects: **Digital Libraries (cs.DL)**; Physics and Society (physics.soc-ph)

Cite as: **arXiv:1205.4328v1 [cs.DL]**

<http://arxiv.org/abs/1205.4328>



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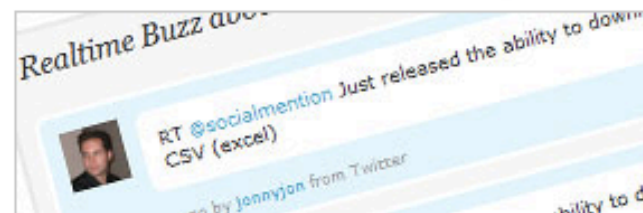
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<http://www.socialmention.com/>

The Reputation Society

How Online Opinions Are Reshaping the Offline World

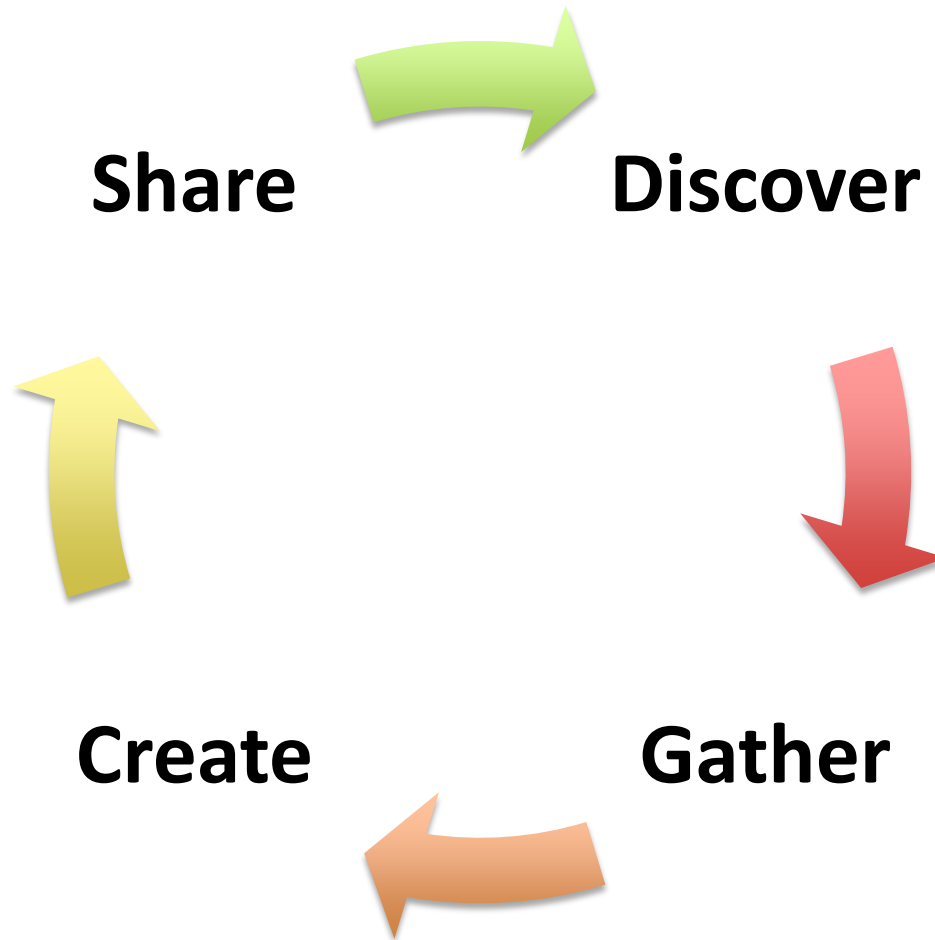
edited by Hassan Masum and Mark Tovey | foreword by Craig Newmark



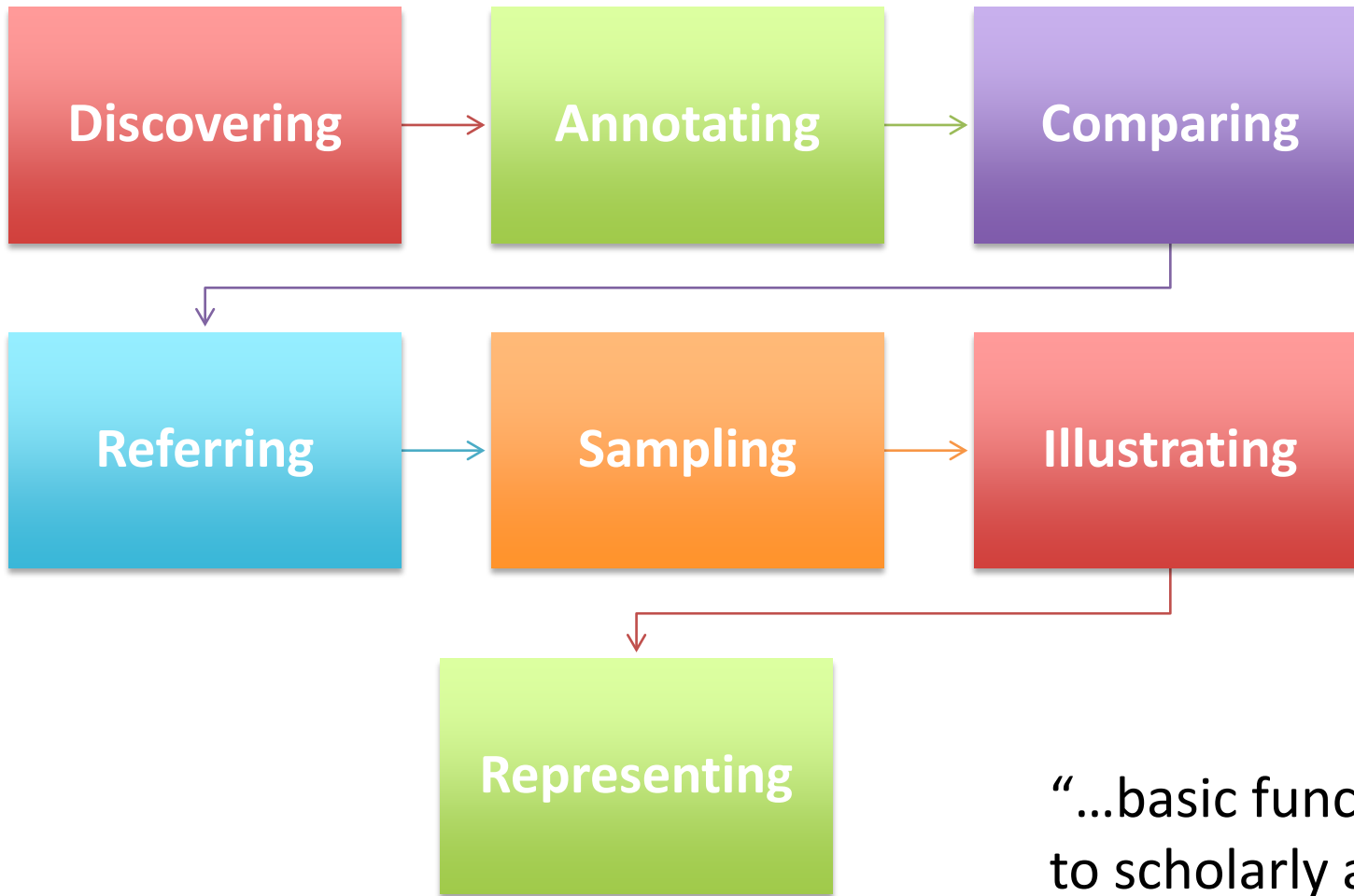
Reputation is nested in social network

Understanding influence and engagement

Scholarly Primitives and the Research Life Cycle



Scholarly Primitives and Reputation?



“...basic functions common to scholarly activity across disciplines, over time, and independent of theoretical orientation.”

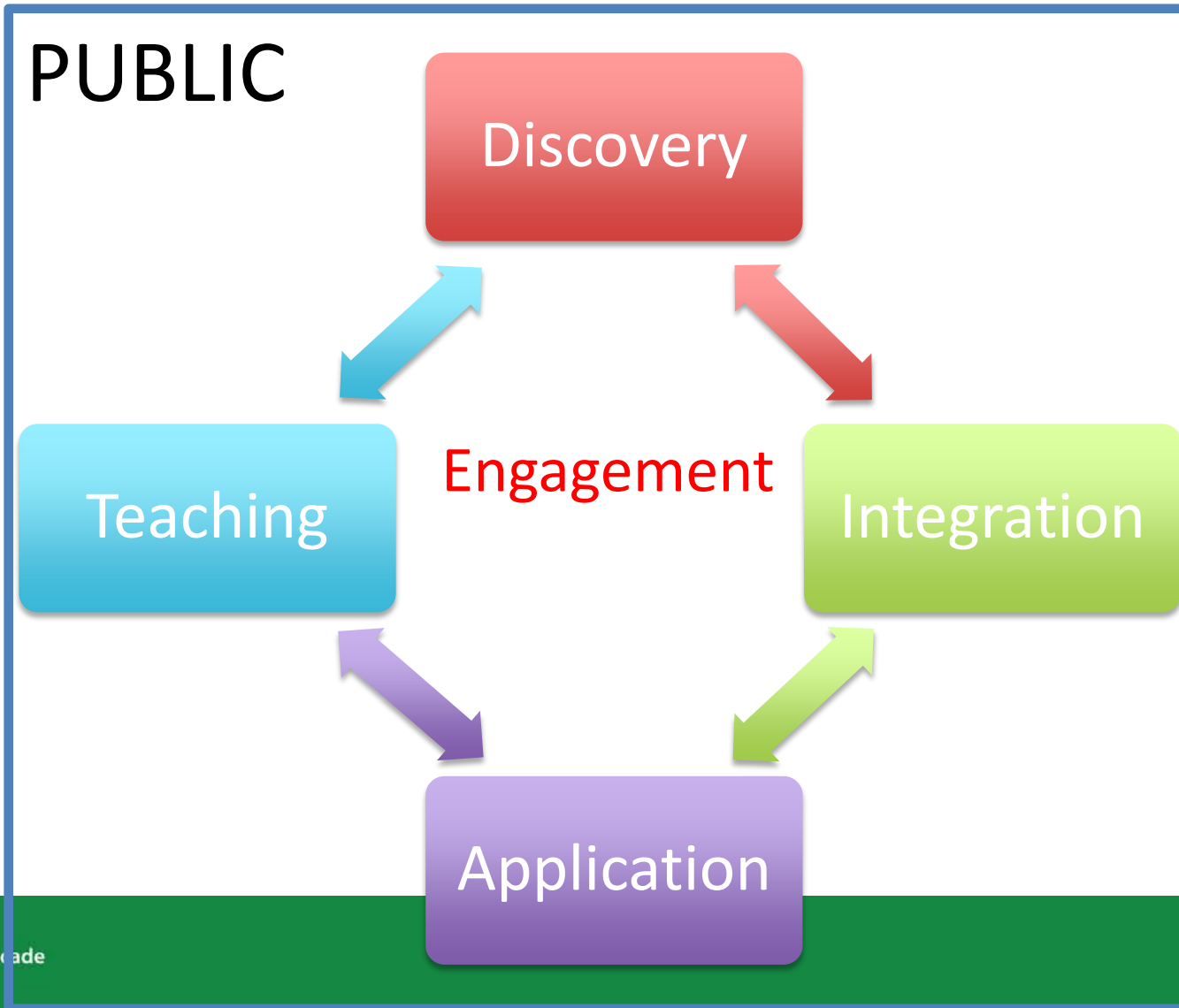
John Unsworth. "Scholarly Primitives: What Methods Do Humanities Researchers Have in Common and How Might Our Tools Reflect This?"

"Humanities Computing, Formal Methods, Experimental Practice"

Symposium, Kings College, London, May 13, 2000.

<http://www.village.virginia.edu/~jmu2m/Kings.5-00/primitives.html>

Boyer's Scholarship of

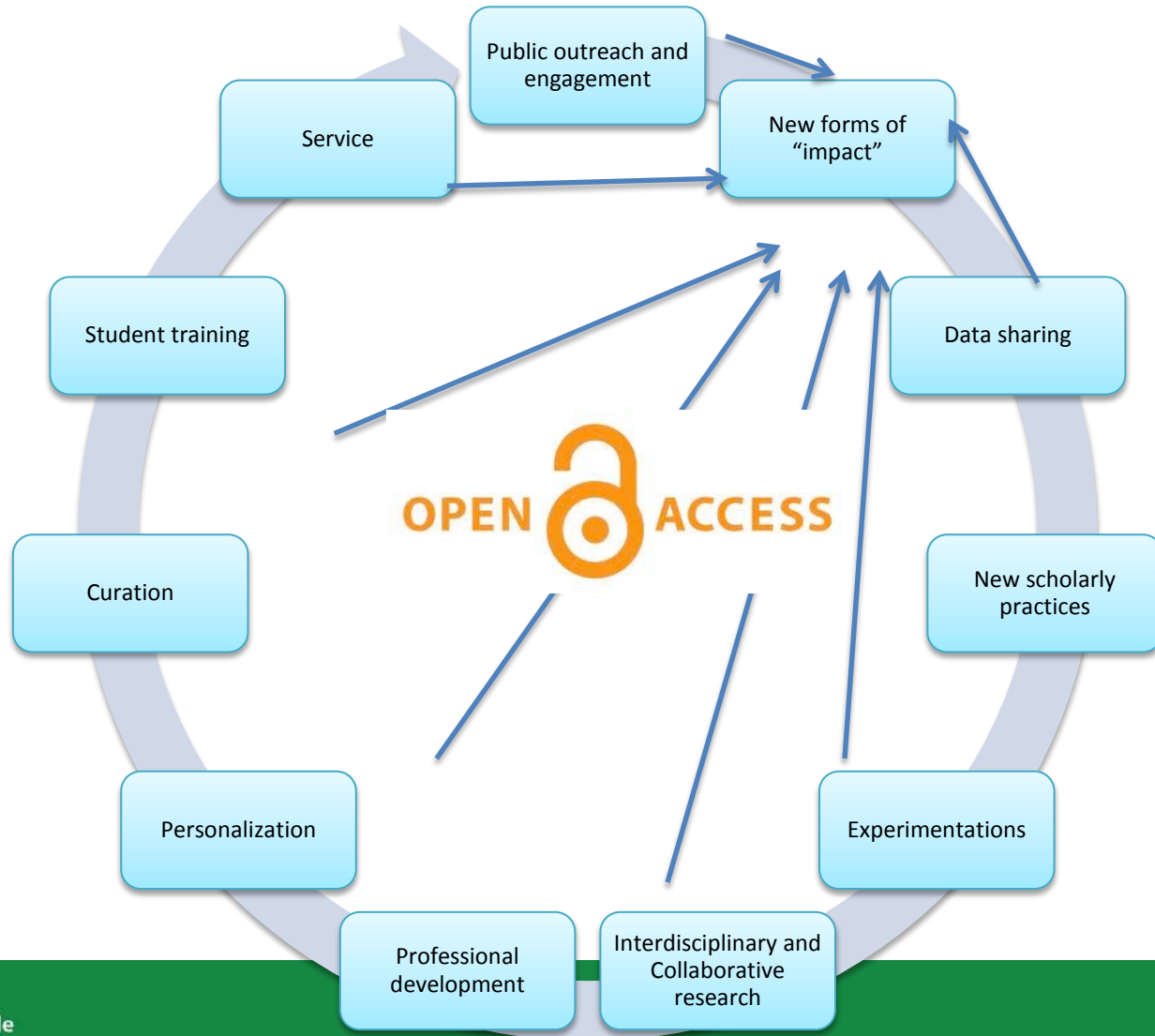


"The scholarship of engagement means connecting the rich resources of the university to our most pressing social, civic and ethical problems, to our children, to our schools, to our teachers and to our cities..."

Ernest Boyer in *The Scholarship of Engagement*
(1996)



Opportunities for Digital Scholarship



Conclusions

- Open access is only the substrate for digital scholarship, but an essential one
- The academic reward system (citations) will slowly evolve to include data citations and software citations, as soon as they become as easy to handle as today's paper citations
- Collaboration will be the norm, and apportionment of credit will be key
- Participation in scholarly exchanges will be far more inclusive and democratic