New Perspectives in Scientific Publishing

Science 2.0 Conference
25 March 2015 Hamburg

Alexander Grossmann
President and Co-Founder
ScienceOpen & HTWK Leipzig
Scientific communication is changing...
... the market

- **20m active scientists** worldwide in scientific, technical, medical (STM) disciplines
- **8m researchers** in the humanities and social sciences (HSS)
- **24,000 scientific journals** in STM
- **17,000+ scholarly societies**
- **2,000 publishing companies**
- **4m submitted** scientific manuscripts per year
- >50% rejected = **1.8m publications** (STM)

Market: 4m articles per year + 20m researchers
Researchers of all disciplines are bothered by:

- **Too long publication cycles**: several months up to a year.
- **No open access**: journals segment and pay-wall make it hard to browse and read.
- **Too expensive**: libraries cannot afford increasing pricing for research literature.
- **No transparency in the review process**: quality assessment via traditional journals is done anonymously behind closed doors.
- **No interaction among researchers**: print-based workflow prevents discourse.
... the opportunity

Science 2.0 can fundamentally change the way how scholarly publishing works

- Immediate publication and worldwide open access.
... the opportunity

Hamburg 25 March 2015
... the opportunity

Science 2.0 can fundamentally change the way how scholarly publishing works

- Immediate publication and worldwide open access.
- No need for journals as “container”.
- Open and transparent Post-Publication Peer Review
- Research impact can be measured on article level and journal Impact Factors lose meaning.
Aging influence on gray matter structural associations within the default mode network utilizing Bayesian network modeling

Yan Wang1, Kewei Chen2, Jiaca Zhang1, Li Yao1,2, Ke Li4, Zhen Jin4, Qing Ye1 and Xiaojuan Guo1,2*

1 College of Information Science and Technology, Beijing Normal University, Beijing, China
2 Banner Alzheimer’s Institute and Banner Good Samaritan PET Center, Phoenix, AZ, USA
3 State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China
4 Laboratory of Magnetic Resonance Imaging, The 306th Hospital of People’s Liberation Army, Beijing, China

Recent neuroimaging studies have revealed normal aging-related alterations in functional and structural brain networks such as the default mode network (DMN). However, less is understood about specific brain structural dependencies or interactions between brain regions within the DMN in the normal aging process. In this study, using Bayesian network (BN) modeling, we analyzed gray matter volume data from 109 young and 82 old subjects to characterize the influence of aging on associations between core brain regions within the DMN. Furthermore, we investigated the discriminability of the aging-associated BN models for the young and old groups. Compared to their...
... the opportunity

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- **Public discourse** on scientific research in blogs, social media, scientific networks and on PubMed Commons.
... the opportunity

ScienceOpen Blog

Journal Impact Factors - Time to say goodbye?

Alexander Grossmann started the discussion:

Along with over 10,000 others, I signed the San Francisco Declaration on Research Assessment DORA ([http://www.ascb.org/dora](http://www.ascb.org/dora)). Why? I believe that the impact factor was a useful tool for the paper age, but that we now have the capability to develop much more powerful tools to evaluate research. For hundreds of years scientific discourse took place on paper – letters written and sent with the post, research cited in one’s own articles printed and distributed by publishers. Citation was the most direct way in many cases to respond directly to the research of another scientist. In the 1970s as scientific output began to boom, the impact factor was developed as a measure for librarians to manage their collections. Impact factors are calculated exclusively by Thompson Reuters for specific journals from the number of citations received by articles in year X published during the previous two years. Therefore, an impact factor can reflect the changing status of a journal within a research area, as the

Replies

Martin Suhm wrote:

I am very happy with the decline of journal impact factor relevance and have never accepted it as an appropriate metric for individual articles, but are innovations like Altmetric really any better? They may measure the hype (and thus initial impact) a new paper creates, but where is the correlation with quality? Quality needs time to show up and quality cannot be manipulated. Quality also does not care about being measured - it is there or it is missing, independent on whether this may still be hidden or already obvious. Quality is quite independent of community size and discipline. At the end of the day (year, life), hype tends to be disappointing and quality tends to last. Admittedly, even a poor quality paper can show the way to some great science, and for that, it may need some hype. Let it have that hype.
Science 2.0 can fundamentally change the way how scholarly publishing works

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Scientific communication is changing...
ScienceOpen ... the core idea

Use the power of professional **networks** to openly ...

- aggregate
- publish
- exchange
- collaborate
- communicate
- discuss + evaluate

... scientific results
<table>
<thead>
<tr>
<th>Articles</th>
<th>1,453,715</th>
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<td>Groups</td>
<td>11</td>
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</table>

Review of “An Evaluation of Course Evaluations”

Richard Freischtat, Philip Stark.
“If you believe in openness, stand up for it.”

Measures to minimize cross-contamination risks in Advanced Therapy Medicinal Product manufacturing

Current European regulations define in vitro expanded cells for clinical purposes as substantially manipulated and include them in the class of Advanced Therapy Medicinal Products to be manufactured in compliance with current Good Manufacturing Practice. These quality requirements are generally ...

Autistic traits in gender dysphoria

Introduction The purpose of this research is to investigate autistic traits in youth with gender dysphoria (GD). Earlier research demonstrated higher prevalence rates of autism spectrum disorder (ASD) in GD. Method A group of 539 children has registered at the Knowledge and Care center for Gender ...

Review of “An Evaluation of Course Evaluations”

Richard Freistalt, Philip Stark.
Hi Wolfgang, This is a ScienceOpen article worth reading.
Alexander
Workspace

Bookmarks 1 - 5 of 34

A Study of Innovative Features in Scholarly Open Access Journals
Bo-Christer Jörg, Caroline Sutton, John Willinsky, Gunther Eysenbach.
— Gunther Eysenbach, Journal of Medical Internet Research (2011)

Background The emergence of the Internet has triggered tremendous changes in the publication of scientific peer-reviewed journals. Today, journals are usually available in parallel electronic versions, but the way the peer-review process works, the look of articles and journals, and the rigid ...

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A survey of authors publishing in four megajournals

Aim. To determine the characteristics of megajournal authors, the nature of the manuscripts they are submitting to these journals, factors influencing their decision to publish in a megajournal, sources of funding for article processing charges (APCs) or other fees and their likelihood ...

Show more info  Add to collection  Unbookmark

Aggregating post-publication peer reviews and ratings
Open Access Publishing

Authors: Alexander Grossmann (corresponding)
Co-authors: Stephanie Dawson (No response), Donald Donman (Approved)
Keywords: Open Access, Publishing
Version: 0.2

Corresponding Author:
Alexander Grossmann
33 followers

Co-Authors:
Stephanie Dawson
57 followers
No response

Donald Donman
1 follower
Approved
Alexander Grossmann

Education/Employment

HTWK University of Applied Sciences Leipzig  (2013-07 to present)
Full Professor in Department of Media and Publishing
Leipzig, Sachsen

Walter de Gruyter GmbH (2009-06 to 2013-06)
Vice President Publishing
Berlin, Berlin

Springer Verlag GmbH (2008-05 to 2009-06)
Managing Director
Wien

Publishing Director

Hamburg 25 March 2015
Kasper Moth-Poulsen evaluated the article as: ★★★★★

Brief summary: I think that this is a genuine report on synthesis and basic characterization of new norbornadienes

Doi: 10.14293/S2.199~1006.1.SOR-CHEM.AKS7SX.v1.RHT1BD

Level of importance: ★★★★★
Level of validity: ★★★★★
Level of completeness: ★★★★★
Level of comprehensibility: ★★★★★

Comments: Hammershøj et al. describes the synthesis and basic characterization of phenyl bromide functionalized norbornadienes designed to study the photo induced 2+2 cycloaddition reaction known to happen in these systems. The report is well written and the experimental details...
### Reviews per Article (Ø)

<table>
<thead>
<tr>
<th>Reviews per Article</th>
<th>Articles</th>
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<tbody>
<tr>
<td>4 Reviews</td>
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<tr>
<td>3 Reviews</td>
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<tr>
<td>2 Reviews</td>
<td>14 (36%)</td>
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<tr>
<td>1 Reviews</td>
<td>6 (15%)</td>
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<tr>
<td>0 Reviews</td>
<td>16 (41%)</td>
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</table>

- **Articles with ≥ 2 Reviews**: 17 (44%)
- **Articles with < 2 Reviews**: 22 (56%)

### Rating per Article (Ø)

<table>
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Some very recent highlights...

[ScienceOPEN.com search interface]

- Advanced search
- Quantum Computing

Disciplines:
- Medicine
- Physics
- Computer science
- Life sciences
- Quantum physics & Field theory

Collections:
- set-up and run your own public list of most important open access articles

Expert search:
- refine your search to target relevant papers & save it

Poster publishing:
- Authors receive a DOI and citable reference of their work

Articles by query 'Quantum Computing'

Algorithms on ensemble quantum computers
Farrokh Yatan, Vwani Roychowdhury, Tal Mor, P. Oscar Boykin.
- Springer Netherlands, Natural Computing (2009)

In ensemble (or bulk) quantum computation, all computations are performed on an ensemble of computers rather than on a single computer. Measurements of qubits in an individual computer cannot be performed; instead, only expectation values (over the complete ensemble of computers) can be measured...

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Computing Cocycles on Simplicial Complexes
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Scientific Publishing: Perspectives

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Thanks to our partners...
Thank you very much!

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Tibor.Tscheke@ScienceOpen.com
What is ScienceOpen?

ScienceOpen is a research and publishing network

Link to a short introduction (30s-Video):
http://youtu.be/pzvDMF2z8_I?list=PLOighaNoiPsnsZ-AAF0u5M2iTiUO2fo3u