Open Science – Chancen und Herausforderungen der digitalen Wissenschaft

Open Access Week
23.10. 2012 Humboldt-Universität Berlin

Martin Grötschel

Konrad-Zuse-Zentrum für Informationstechnik
Technische Universität Berlin
International Mathematical Union

Gliederung

1. Open Science: Worum geht es?
2. Open Science: Was will ich?
3. Was ist das Problem?
4. Was habe ich getan?
5. International Mathematical Union (IMU)
    1. IMU Committee on Electronic Information and Communication
    2. Citation Statistics & Journal Ranking
    3. Digitale mathematische Weltbibliothek
6. Web 2.0
7. Dauerhafte Zugänglichkeit von Forschungsdaten
8. Zusammenfassung

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http://www.openaccessweek.org/

A global event, now in its 6th year, promoting Open Access as a new norm in scholarship and research.

“Open Access” to information – the free, immediate, online access to the results of scholarly research, and the right to use and re-use those results as you need – has the power to transform the way research and scientific inquiry are conducted. It has direct and widespread implications for academia, medicine, science, industry, and for society as a whole.

http://www.openaccessweek.org/

Open Access (OA) has the potential to maximize research investments, increase the exposure and use of published research, facilitate the ability to conduct research across available literature, and enhance the overall advancement of scholarship. Research funding agencies, academic institutions, researchers and scientists, teachers, students, and members of the general public are supporting a move towards Open Access in increasing numbers every year. Open Access Week is a key opportunity for all members of the community to take action to keep this momentum moving forward.

Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (22.10.2003)

Goals

Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society. New possibilities of knowledge dissemination not only through the classical form but also and increasingly through the open access paradigm via the Internet have to be supported. We define open access as a comprehensive source of human knowledge and cultural heritage that has been approved by the scientific community.

In order to realize the vision of a global and accessible representation of knowledge, the future Web has to be sustainable, interactive, and transparent. Content and software tools must be openly accessible and compatible.

http://www.zim.mpg.de/openaccess-berlin/berlin_declaration.pdf

Budapest & Heidelberg & ... Declaration

A declaration of ALL European Academies

Open Science for the 21st century

A declaration of ALL European Academies

presented at a special session
with Mme Neelie Kroes, Vice-President of the European Commission,
and Commissioner in charge of the Digital Agenda

on occasion of the ALLEA General Assembly held at
Accademia Nazionale dei Lincei, Rome, on 11-12 April 2012

ALLEA declaration

Open Scientific Content arising from publicly funded research

Publications should be made openly available online, as soon and as freely as possible, as should also ***educational resources*** and ***software*** resulting from publicly funded research.

Scientists and their organisations should apply open sharing principles to the ***data*** that underpins such publications, including “negative” results; measures should be put in place for quality assurance and preservation of such data for re-use.

Consequently, ***research proposals*** requesting public funds should include measures aimed at advancing open science and apply the above principles. Qualifications to open science principles should require specific explanations, as for example legal obligations or legitimate commercial interests, or security, privacy or ethical concerns.

ALLEA declaration

Open e-Infrastructures for public and private research

High-performance and economically efficient ICT infrastructures are needed to manage the expected scale of future data flows. Adequate computational resources should be available to all researchers in order to fully leverage the online access to data and computational resources. Also beyond Europe open high-speed connectivity should help reduce existing knowledge divides. Infrastructures should therefore be built with a view to global interoperability, fostering collaborations between different scientific fields and different societal sectors, and capable of handling extremely large and complex datasets

ALLEA declaration

Towards an Open Science Culture

Academic assessment and reward systems should see merit in participation in the culture of sharing, in enabling online collaboration and reproducible e-science. Those producing or reusing scientific information should comply with codes of conduct and conform to the standards of scientific integrity in their discipline, subjecting publications and also datasets to peer review and quality assessments.

Commercial and security interests are to be considered, but the existence of scientific data that arises from privately funded research or that is security-sensitive should also be registered, when it is in the interest of the public good, with sector- and field-specific licenses on limited or delayed release of such information subject to time-based expiry.

Open science should facilitate access to quality educational tools and should allow citizens to benefit from advanced technologies. It is hoped that the young will find inspiration for new discoveries and entrepreneurship, joining the ranks of scientists, engineers and innovators in far greater numbers than is currently the case.

Meine Kurzinterpretation

Das Grundprinzip von Open Science:

- Die Ergebnisse öffentlich finanzierter Wissenschaft müssen für die gesamte Allgemeinheit weltweit öffentlich zugänglich sein.
- Nutzung und Nachnutzung der bereitgestellten Information muss ermöglicht werden.

- Die große Frage: Aber wie?

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Mein Interview, BBAW-Gegenworte 2001

„Sie beschäftigen sich doch intensiv mit elektronischer Information und Kommunikation“,
stellte die Redakteurin der BBAW-Gegenworte fest.
„Könnten Sie uns da nicht einfach einmal Ihre Traumvorstellungen von der digitalen Informationswelt darstellen?“

„Das ist ganz einfach“, antworte ich.
„Ich will **alles sofort, jederzeit, überall** und **kostenlos** zur Verfügung haben.“

„Ist das nicht ein bisschen maßlos?“
„Mag sein“, entgegne ich,
„aber Sie haben mich doch nach meinem Traum gefragt!“

Authors	Martin Grötschel
Title	*Mein digitaler Traum*
Journal	Gegenworte der BBAW, 8 (2001) 10-16
Files	Get BibTeX entry View DjVu View PDF (preprint) Get PS (preprint)

Mein Interview, BBAW-Gegenworte 2001

Was will ich?

- Verlinktes,
- vernetzes,
- schnell erreich- und
- durchsuchbares Wissen,
- qualitätsgeprüft,
- gut klassifiziert und
- im Volltext
- ohne Barrieren.

- Zugriff auf Hintergrundmaterial (Originalmanuskripte, technische Daten, Messungen, Simulationsläufe,..),
- disziplinübergreifend,
- die gesamte Forschungsliteratur „at my fingertips“.

Predictions (more than 10 years ago)

A common belief of many:

The Internet will make all these dreams come true!

and even much more

Current Technological Developments

- Computer speed
- Storage growth
- Network bandwidth
- Internet growth
- Cost reduction

Technologically everything is going favour of the vision.

But the visions have not materialized yet.

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Problem?

Kurze Formel:

Massiver Ärger über die Gier von Verlagen

- Exorbitante Preissteigerungen
- Exorbitante Gewinne

Aber auch viele selbst erzeugte Probleme:

- Missverständnisse
- Unwillen
- Beharrung
- Eitelkeiten
- Notwendige Infrastruktur nicht verfügbar
- ...

Emotionaler Aspekt

Wissenschaftler:

„Warum sollen wir das zurückkaufen, was wir selbst hergestellt haben?“

Verleger:

„Warum sollen wir das verschenken, was wir bezahlt haben und besitzen?“

Wer leistet was in der „supply chain“ des wissenschaftlichen Publikationswesens?

Wem gehört Information?

Zugang zu Wissen und Zugriff auf Wissen erfolgen nie direkt, sondern über seine **Repräsentationen**, die in Form von **Informationsprodukten** (Bücher, Zeitschriftenartikel, CD-ROMs,...) vorliegen.

Geschützt durch das Urheberrecht sind diese **Werke**, sofern sie Ideen, Fakten, Theorien, in einer wahrnehmbaren und kommunizierbaren Form darstellen.

Wissen ist frei, aber **Information** (als Möglichkeit des Zugangs zu Wissen) ist Gegenstand **technisch organisierter** und **juristisch legitimierter Verwertung**.

Worum geht es?

Wie soll mit dem von Wissenschaftlern produzierten Wissen angemessen umgegangen werden?

Welche Rechte werden wofür benötigt?

Wer soll welche Rechte besitzen bzw. an wen abtreten?

Brauchen wir noch Verlage?

- Wenn ja, wozu?
- Wenn nicht, was dann?

Ist Open Access eine vernünftige Alternative?

Wer leistet was im wissenschaftlichen Publikationswesen?

Wer bezahlt wofür?

Was wollen Wissenschaftler mit der Publikation ihrer Ergebnisse eigentlich erreichen?

Die Notwendigkeit zu Publizieren

- Verbreitung und Austausch von Information/Wissen/Ideen
- Qualifizierung (Zertifikat)
- Mitteleinwerbung
- Ruf
- Anstellung
- Projektmittel
- Ideenschutz (Copyright, Patentrecht)

Komplexität der wissenschaftlichen Kommunikation

Was wird eigentlich gehandelt?

- Autor — Qualität gegen Anerkennung
- Verleger — Verbreitung gegen Gewinn
- Leser — Interesse gegen Originalität
- Bibliothekar — Archivierung, Zugriff gegen Etat
- Herausgeber — Qualität, Maßstab gegen Einfluss
- Gutachter — Expertise gegen indirekten Einfluss

Geld und „Handelsware“ sind weitgehend entkoppelt.
Primäres Tauschobjekt: Prestige, Einfluss

Berliner Zeitung, 22.10.2012

- Gewinne von Elsevier
- Gewinne von Springer

NACHRICHTEN

Wissenschaftsverlag strebt an die Börse

Der Wissenschaftsverlag Springer Science+Business Media will an die Börse gehen. „In wenigen Monaten könnte es so weit sein", sagte Firmenchef Derk Haank der Frankfurter Allgemeinen Sonntagszeitung. „Umsatz wie Gewinn steigen um fünf bis sieben Prozent pro Jahr." Laut Zeitung wird Springer Science auf drei bis vier Milliarden Euro taxiert. Die Finanzinvestoren EQT und GIC hatten das aus Berlin operierende Unternehmen 2009 für 2,3 Milliarden Euro gekauft. *(Reuters)*

Springer achieved sales of € 875.1m in FY 2011, with sales growth of approximately 2.4% from FY 2010 (adjusted for divestments and for the change in the underlying currency exchange rates). FY 2011 adjusted EBITDA is € 313.3m, with growth of approximately 7% from FY 2010 (adjusted for divestments / exchange rate effects).

Absurditäten der Publikationswelt

30.06.2009 13:17 « Vorige | Nächste »

Verleger fordern Schutz vor und Geld von Suchmaschinen

vorlesen / MP3-Download

In der Debatte um ein so genanntes "erweitertes Leistungsschutzrecht" hat Hubert Burda, Präsident des Verbandes Deutscher Zeitschriftenverleger (VDZ) eine angemessene Beteiligung an den Gewinnen der Suchmaschinen gefordert. "Fair share und fair use" müssten Burda zufolge neu definiert werden. In einem Artikel für die *Frankfurter Allgemeine Zeitung* (FAZ) beklagt Hubert Burda die schleichende Enteignung der Verleger durch das Netz und fordert den Gesetzgeber auf, die Verlage vor dieser Enteignung besser zu schützen.

Springer-Konzern will neue Zwangsabgabe auf Computer

Peter Mühlbauer *02.07.2009*

Mit dem eingenommenen Geld sollen Verlage subventioniert werden

Der Springer-Konzern, der unter anderem die Bild-Zeitung und die Welt veröffentlicht, glaubt nicht mehr an die Marktwirtschaft. Zumindest dann, wenn es um die Gelegenheit geht, Geld auf einfachere Weise einzuziehen.

George Monbiot
guardian.co.uk, Monday 29 August 2011 21.08 BST

Academic publishers make Murdoch look like a socialist

Academic publishers charge vast fees to access research paid for by us. Down with the knowledge monopoly racketeers

You might resent Murdoch's paywall policy, in which he charges £1 for 24 hours of access to the Times and Sunday Times. But at least in that period you can read and download as many articles as you like. Reading a single article published by one of Elsevier's journals will cost you $31.50. Springer charges €34.95, Wiley-Blackwell, $42. Read 10 and you pay 10 times. And the journals retain perpetual copyright. You want to read a letter printed in 1981? That'll be $31.50.

George Monbiot
guardian.co.uk, Monday 29 August 2011 21.08 BST

Murdoch pays his journalists and editors, and his companies generate much of the content they use. But the academic publishers get their articles, their peer reviewing (vetting by other researchers) and even much of their editing for free. The material they publish was commissioned and funded not by them but by us, through government research grants and academic stipends. But to see it, we must pay again, and through the nose.

The returns are astronomical: in the past financial year, for example, Elsevier's operating profit margin was 36% (£724m on revenues of £2bn). They result from a stranglehold on the market. Elsevier, Springer and Wiley, who have bought up many of their competitors, now publish 42% of journal articles.

> What we see here is pure rentier capitalism: monopolising a public resource then charging exorbitant fees to use it. Another term for it is economic parasitism. To obtain the knowledge for which we have already paid, we must surrender our feu to the lairds of learning.

The Cost of Knowledge (22.10.2012)

12836 Researchers Taking a Stand.

Academics have protested against Elsevier's business practices for years with little effect. These are some of their objections:

They charge exorbitantly high prices for subscriptions to individual journals.

In the light of these high prices, the only realistic option for many libraries is to agree to buy very large "bundles", which will include many journals that those libraries do not actually want. Elsevier thus makes huge profits by exploiting the fact that some of their journals are essential.

They support measures such as SOPA and PIPA, that aim to restrict the free exchange of information.

The key to all these issues is the right of authors to achieve easily-accessible distribution of their work. If you would like to declare publicly that you will not support any Elsevier journal unless they radically change how they operate, then you can do so by filling in your details on this page.

More information:

Statement of Purpose

Zentraler Aspekt

- Oligopolistischer „Verleger-Markt“ mit starken Speilern
- Atomistischer und in Gruppen zersplitterter Wissenschaftsmarkt
  - Autoren
  - Leser
  - Herausgeber
  - Gutachter
  - Bibliotheken
  - Öffentliche Hand
  - Egoismen von Institutionen

Entkoppelung der „Incentives“

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http://www.zib.de/groetschel/research/Musterbiblio.html

Prof. Dr. Dr. h.c. mult. Martin Grötschel

Publications

How to make a page like this

Articles are marked blue Books are marked red Unpublished reports are marked grey Print the List of Publications!

[2012] [2011] [2010] [2009] [2008] [2007] [2006] [2005] [2004] [2003]
[2002] [2001] [2000] [1999] [1998] [1997] [1996] [1995] [1994] [1993]
[1992] [1991] [1990] [1989] [1988] [1987] [1986] [1985] [1984] [1983]
[1982] [1981] [1980] [1979] [1978] [1977] [1976] [1975] [1973]

2012

Title	Optimization Stories
Editors	Martin Grötschel
Published	DOCUMENTA MATHEMATICA, Journal der Deutschen Mathematiker-Vereinigung, 2012, 460
Files	Get BibTeX entry View PDF

Authors	Martin Grötschel, Ya-xiang Yuan
Title	Euler, Mei-Ko Kwan, Königsberg, and a Chinese Postman
Editors	Martin Grötschel
Booktitle	Optimization Stories
Published	DOCUMENTA MATHEMATICA, 2012, 43-50

Weitere Aktivitäten

- IuK-Inititaive der Fachgesellschaften
- IuK-Fachgruppe der DMV
- Committee on Electronic Information and Communication der IMU
- Problem-Libraries: Daten für mathematische Probleme
- Public Domain Software: SCIP, MCF, Soplex, ZIMPL,...
- ...

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The IMU activities in information and communication

8/1998 ICM 98: The IMU decides to increase its engagement in the field of electronic information and communication:

The Committee on Electronic Information and Communication (CEIC) is established

CEIC's Terms of Reference 2010

COMMITTEE ON ELECTRONIC INFORMATION AND COMMUNICATION (CEIC)

Terms of reference

(As approved by the IMU Executive Committee, Bangalore, 2010
and announced at the IMU General Assembly, Bangalore, on August 16, 2010.)

The CEIC's duties include:

(a) Reporting regularly to the EC, advising it on aspects of IMU operations related to information and communication, including financial implications, and keeping it informed of new developments.

(b) Reviewing the development of electronic information, communication, publication, and archiving so as to keep the EC abreast of current and emerging issues. Publicising relevant developments to the wider community via IMU on the Web and other methods.

(c) Advising the EC about potential opportunities to endorse standards ('best practice recommendations') on issues related to publication and communication, including such matters as the use of software and data repositories.

(d) Advising the EC about potential opportunities to foster the growth of electronic infrastructure, and selectively creating tools for this purpose.

CEIC/IMU Recommendations

Recommendations

The International Mathematical Union / Committee on Electronic Information and Communication: Digital Mathematics Library (June 2005)

- Some Best Practices for Retrodigitization (29 June 2005) [**PDF**]
- Digital Mathematics Library: A Vision for the Future (version 5.3) [**PDF**]

The International Mathematical Union / Committee on Electronic Information and Communication: Recommendations on Information and Communication (August 2002)

- **Preface**
- **Terms of Reference**
- **Best Current Practices [WORD] [PDF] (as revised in April 2004)**
  - **for Mathematicians**
  - **for Librarians and Mathematicians**
  - **for Publishers and Mathematicians**
- **The Math-Net Charter**
  - **The Charter**
  - **Supplement**
- **The Math-Net Page**
  - **Call to all Mathematical Institutions to Install Math-Net Pages**
  - **Launching the Math-Net Page**
  - **Press Release: Math-Net Page Launched for Mathematics Institutions Worldwide**
- **Call to all Mathematicians to Make Publications Electronically Available**
- **CEIC Copyright Recommendations: What Do You Want from Your Publisher**
  - **Executive Summary for Authors of Research Papers in Journals**
  - **An annotated Checklist for Mathematical Authors**
- **Journal Prices**

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IMU, ICIAM and IMS

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)

Corrected version,
6/12/08

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

Citation Statistics

Executive Summary

This is a report about the use and misuse of citation data in the assessment of scientific research. The idea that research assessment must be done using "simple and objective" methods is increasingly prevalent today. The "simple and objective" methods are broadly interpreted as *bibliometrics*, that is, citation data and the statistics derived from them. There is a belief that citation statistics are inherently more accurate because they substitute simple numbers for complex judgments, and hence overcome the possible subjectivity of peer review. But this belief is unfounded.

Nefarious Numbers

Douglas N. Arnold and Kristine K. Fowler

- A journal's distribution of citations does not determine its quality.
- The impact factor is a crude statistic, reporting only one particular item of information from the citation distribution.
- It is a flawed statistic. For one thing, the distribution of citations among papers is highly skewed, so the mean for the journal tends to be misleading. For another, the impact factor only refers to citations within the first two years after publication (a particularly serious deficiency for mathematics, in which around 90% of citations occur after two years).
- The underlying database is flawed, containing errors and including a biased selection of journals.
- Many confounding factors are ignored, for example, article type (editorials, reviews, and letters versus original research articles), multiple authorship, self-citation, language of publication, etc.

Nefarious Numbers

Douglas N. Arnold and Kristine K. Fowler

World Scientific, the publisher of the International Journal of Algebra and Computation sent out an e-mail:

“IJAC's Impact Factor has improved from 0.414 in 2007 to 0.421 in 2008! Congratulations to the Editorial Board and contributors of IJAC.”

In this case, the 1.7% increase in the impact factor represents a single additional citation to one of the 145 articles published by the journal in the preceding two years.

http://www.ima.umn.edu/~arnold/papers/impact-factors.pdf

http://arxiv.org/abs/1010.0278

Nefarious Numbers

Douglas N. Arnold and Kristine K. Fowler

The field of applied mathematics provides an illuminating case in which we can study such impact factor manipulation. For the last several years, the International Journal of Nonlinear Science and Numerical Simulations (IJNSNS) has dominated the impact factor charts in the “Mathematics, Applied” category. It took first place in each year 2006, 2007, 2008, and 2009, generally by a wide margin, and came in second in 2005. However, as we shall see, a more careful look indicates that IJNSNS is a minor journal, nowhere near the top of its field.

Nefarious Numbers

Douglas N. Arnold and Kristine K. Fowler

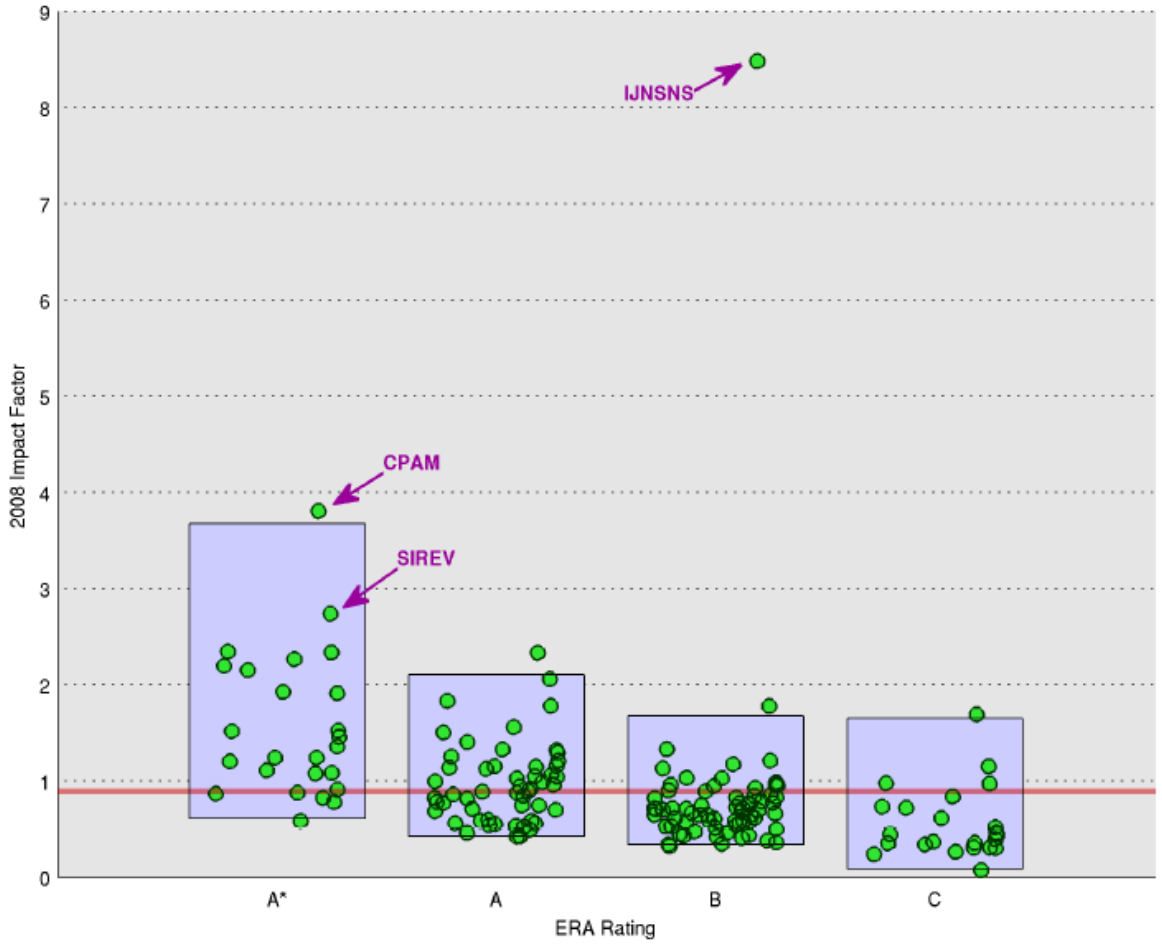

Figure 1: 2008 impact factors of 170 applied math journals grouped according to their 2010 ERA rating tier. In each tier, the band runs from the 2.5th to the 97.5th percentile, outlining the middle 95%. Horizontal position of the data points within tiers is assigned randomly to improve visibility. The red line is at the 20th percentile of the A tier.*

Nefarious Numbers

Douglas N. Arnold and Kristine K. Fowler

Makings of a high impact factor

A first step to understanding IJNSNS's high impact factor is to look at how many authors contributed substantially to the counted citations, and who they were. The top-citing author to IJNSNS in 2008 was the journal's Editor-in-Chief, Ji-Huan He, who cited the journal (within the two-year window) 243 times. The second top-citer, D.D. Ganji, with 114 cites, is also a member of the editorial board, as is the third, regional editor Mohamed El Naschie, with 58 cites. Together these three account for 29% of the citations counted towards the impact factor.

For comparison, the top three citers to SIREV contributed only 7, 4, and 4 citations, respectively, accounting for less than 12% of the counted citations, and none of these authors is involved in editing the journal. For CPAM the top three citers (9, 8, and 8) contributed about 7% of the citations, and, again, were not on the editorial board.

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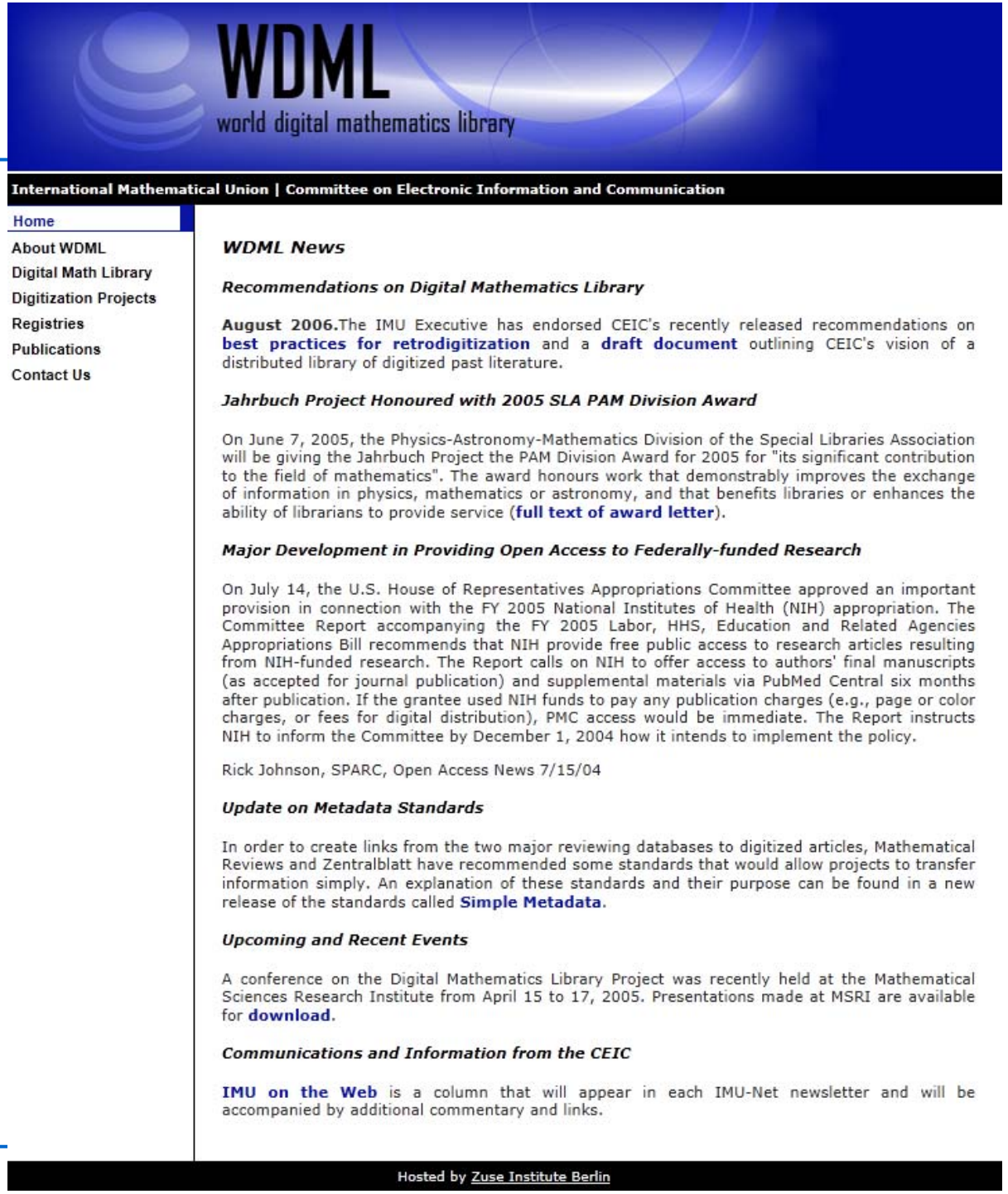
WDML at ZIB

About WDML

For the past several years, mathematicians have contemplated a coordinated effort to digitize the past mathematical literature in order to make it available online. The aim is to make as much of the past literature available as possible, linked to the present literature in suitable ways.

The Committee on Electronic Information and Communication (CEIC) of the International mathematical Union has made a commitment to coordinate further efforts to achieve a world-wide digital library. This site contains information about the World Digital Mathematics Library project and will be updated as the effort continues.



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Erfolgreiche Blogs

- Terry Tao
  http://terrytao.wordpress.com/

- Tim Gowers
  http://gowers.wordpress.com/

Erfolgreiche Blogs

Gil Kalai: http://gilkalai.wordpress.com/

The Quantum Debate is Over! (and other Updates)

Posted on October 15, 2012by Gil Kalai

Quid est noster computationis mundus?

Nine months after is started, (much longer than expected,) and after eight posts on GLL, (much more than planned,) and almost a thousand comments of overall good quality, from quite a few participants, my scientific debate with Aram Harrow regarding quantum fault tolerance is essentially over. Some good food for thought, I hope. As always, there is more to be said on the matter itself, on the debate, and on other ”meta” matters, but it is also useful to put it now in the background for a while, to continue to think about quantum fault tolerance in the slow pace and solitude, as I am used to, and also to move on in other fronts, which were perhaps neglected a little.

Gowers‘ Polymath Project

Polymath paper published

April 23, 2012

I’m glad to be able to report that “A new proof of the density Hales-Jewett theorem” has recently appeared in Annals of Mathematics. Unfortunately it’s behind a paywall, but you can find an almost final version on the arXiv.

I might add that my enthusiasm for this way of working is undimmed. The reason there has been no Polymathematical activity on this blog for quite a while is that I’ve been busy with more conventional projects, but in the not too distant future I’d like to do some more open research. Also, Gil Kalai and I have a plan to try soon to revive the EDP project. I won’t say any more about that now, but it seems a good moment to mention it.

International Mathematical Union

Resolution 18 of the Bangalore General Assembly (August 17, 2010)

"The General Assembly of the IMU asks the EC to create, in cooperation with ICIAM, a Working Group that is charged with considering whether or not a joint ICIAM/IMU method of ranking mathematical journals should be instituted, and what other possible options there may be for protecting against the inappropriate use of impact factors and similar manipulable indices for evaluating research".

REPORT OF THE JOURNAL RANKING WORKING GROUP

- Journals are essential for mathematical development. In mathematical research, they provide peer validation of results and act as organs of communication.
- Mathematicians know that bibliometric data lose \crucial information that is essential for the assessment of research" [3]. However, they are widely used1 by national research agencies, universities, and libraries as mechanisms for evaluation of journals, departments and individuals, despite their known inaccuracies for mathematics.
- Such evaluations shape mathematical development, through funding, career opportunities or library purchases. An overwhelming majority of mathematicians in the world do not have recourse to more senior mathematicians with experience at rebutting such inaccurate opinions.
- An increasing number of journals appear to be implementing practices oriented to the pursuit of rapid publication, higher impact factor, and commercial return, at the cost of appropriate mathematical judgment.

To counteract these trends and protect the mathematical literature, we have considered how the IMU and ICIAM could undertake an honest, careful rating of journals based on the judgment of expert mathematicians. We examine the benefits and the drawbacks of such a rating scheme, and describe a plan for its implementation. The committee as a whole recommends this plan; a minority are persuaded by the arguments against it in Section 10.
(will be made public on September 15, 2011 at IMU's Web site)

Blog on Journals Ranking (July 2011)

Resolution concerning WG on Journals Ranking (accepted by ICIAM and IMU):

- For the purpose of an open, thoughtful and dispassionate discussion, it is proposed that a moderated blog be created, inviting contributions from mathematicians worldwide. This blog will be set up and supported technically by the IMU Secretariat; moderation will be done by a Moderation Group, to be constituted by IMU and ICIAM.
- We expect that this blog can be set up securely, and the Moderation Group constituted to the satisfaction of IMU and ICIAM , by September 15, 2011; the blog would remain open for comment from then until (about) February 15, 2012, i.e. for a period of about 5 months.
- The discussion on the blog should not be restricted to only the WG-proposed solution (4-tier ranking) or the status quo (no ranking). In particular, it would discuss also the desirability and feasibility of a 2-tier ranking (separating out "rogue" journals) or alternatives to ranking (such as a "guide to journals", which would be "multidimensional", giving more information); for all cases, dynamics should be considered as well.
- The Moderation Group would prepare a report for IMU and ICIAM by March 30, 2012.

Blog on Journals Ranking (July 2011)

Der Blog wird in dieser (oder der nächsten) Woche durch eine lange Zusammenfassung der IMU-Präsidentin beendet.

- Die Beteiligung war deutlich niedriger als erwartet/erhofft.
- Es wird kein von der IMU „betreutes“ Ranking von mathematischen Zeitschriften geben

Gliederung

1. Open Science: Worum geht es?
2. Open Science: Was will ich?
3. Was ist das Problem?
4. Was habe ich getan?
5. International Mathematical Union (IMU)
    1. IMU Committee on Electronic Information and Communication
    2. Citation Statistics & Journal Ranking
    3. Digitale mathematische Weltbibliothek
6. Web 2.0
7. Dauerhafte Zugänglichkeit von Forschungsdaten
8. Zusammenfassung

http://www.allianzinitiative.de/de/

Schwerpunktinitiative Digitale Information
der Allianz der deutschen Wissenschaftsorganisationen

Forschungsdaten

Der Aufwand für das Gewinnen von Daten als Grundlage wissenschaftlicher Erkenntnis – beispielsweise in der Soziologie, Medizin, Fernerkundung oder Hochenergiephysik – liegt allein in Deutschland in der Größenordnung von mehreren Milliarden Euro pro Jahr.

Viele dieser Daten sind nach einer relativ kurzen Phase der Auswertung durch Einzelne oder kleine Gruppen kaum mehr verfügbar oder gehen sogar vollständig verloren. Hier sehen alle Wissenschaftseinrichtungen einen dringenden Handlungsbedarf hinsichtlich der systematischen Sicherung, der professionellen Archivierung und einer nachhaltigen Bereitstellung dieser Daten für die Nachnutzung durch Dritte.

Worüber reden wir?

Große, durch öffentliche Finanzierung gewonnene Datenmengen

- Geologische Bohrungen und Messreihen
- Satellitendaten
- Physikalische Experiment (CERN)
- Medizinische Reihenuntersuchungen

- Editionen in den Geisteswissenschaften (Leibniz, Marx-Engels)
- Datensammlungen zu Problemen in der Mathematik, Informatik, etc. (MIPLib 201o, TSPLib, FAPLib, SNDLib,...)

Probleme

Warum werden Daten überhaupt zurückgehalten?

Die hier auftretenden Probleme sind ähnlich wie bei der Literatur:

- Wem gehören die Daten?
- Wer bezahlt den dauerhaften Zugang?
- Wer sorgt für die „Lesbarkeit“ ?
- Wer darf die Daten wie nutzen?

Großes Problem

Wer bietet die notwendige Infrastruktur auf Dauer an?

Trotz viele Ankündigungen: vollkommen ungeklärt

Gliederung

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Zeitschrift Gegenworte der BBAW
21. Heft, Frühjahr 2009

- Volker Gerhardt: „Dann gehen wir eben ins Netz“, 22-25
- Roland Reuß: „Wer hindert wen woran?“, 58-63
- Martin Grötschel und Joachim Lügger: „Veränderungen in der Publikations- und Kommunikationswelt: Open Access, Google, etc.“, 68-71
- Siegfried Großmann: „Geistiges Eigentum und Open Access in den Journal-dominierten Wissenschaften oder: Wem gehört $E = mc^2$?“, 78-81

Wörtliche Zitate von Volker Gerhardt (HU Berlin, Philosophie)

Durch das Gebot des offenen Zugangs wird der moderne Fluch des *publish or perish*, unter dem der wissenschaftliche Nachwuchs heranwächst, auf alle ausgeweitet.

Gleichwohl darf man sich nicht einbilden, mit dem Publikationsdiktat des Open Access der Wissenschaft etwas Gutes zu tun. Sie leidet schon lange genug unter der Verwechslung von Quantität mit Qualität, mit der das Rating an die Stelle der Urteilskraft tritt und die im Übrigen ein sicheres Indiz dafür ist, dass die Wissenschaft sich nicht mehr nach ihren eigenen Kriterien bewertet.

Wörtliche Zitate von Volker Gerhardt (HU Berlin, Philosophie)

Jeder ist sein eigener Lektor, der dem Autor großzügig jede Eitelkeit durchgehen lässt.

Unter diesen den Stil und die Qualität sichernden Bedingungen einer auf Erkenntnis (und nicht auf Anpassung) gerichteten Wissenschaft muss der bürokratische Imperativ des Open Access zum Terror der Erfolgsberichterstattung führen. ...Wenn er das Genie besitzt, auf neue Einsichten zu kommen, muss man ihm auch die Freiheit lassen, über ihre Publikation zu bestimmen.

Die *dritte* Gefahr steht unmittelbar bevor. Sie führt über die Entliterarisierung des wissenschaftlichen Lebens in den absehbaren Ruin unserer Schriftkultur. Dabei ist die Kaskade des Verfalls bereits klar vorgezeichnet:

Open Science – Chancen und Herausforderungen der digitalen Wissenschaft

Vielen Dank für Ihre Aufmerksamkeit

Martin Grötschel

Konrad-Zuse-Zentrum für Informationstechnik
Technische Universität Berlin

International Mathematical Union