

Overview of Open Archives Initiatives

**Raf Dekeyser
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Overview

- **The prehistory**
- **What is the Open Archives Initiative (OAI)?**
- **What is Open Access?**
- **SPARC and the serials crisis**
- **Subject oriented or Institutional repositories?**
- **From dissemination to publication?**
- **The librarian's schizophrenia**

The Prehistory

- **Communication through mailing of preprints**
- **Internet: institute website with preprints**
- **1991: Los Alamos National Laboratory: e-print archive for physics and mathematics (Paul Ginsparg)**
 - **Unrefereed author self-archiving (automated submission process for electronic preprints): contributions mostly reappear in standard journals**
 - **Free access for search and retrieval**
 - **Fast dissemination!**
 - **220.000 articles (31/12/02); 3 million accesses/month**
 - **Now at Cornell University**



arXiv.org e-Print archive

Automated e-print archives

physics

Search

Form Interface

Catchup

Help

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13 Dec 2001: Cumulative " pages. Note main site relocation.

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- ☐ math-ph
- ☐ nucl-ex
- ☐ nucl-th
- ☐ physics
- ☐ quant-ph
- ☐ Search all

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- ☐ All years
- ☐ 2003
- ☐ 2002
- ☐ 2001
- ☐ 2000
- ☐ 1999
- ☐ 1998
- ☐ 1997
- ☐ 1996
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- ☐ 1993
- ☐ 1992
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Author(s):	<input type="text"/>	AND
Title:	<input type="text" value="soliton"/>	AND
Abstract:	<input type="text"/>	

Show hits per page

or selections to default values.

Other subject areas to search:

Hints for more fulfilling searches

Boolean Operators

Search results

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The URL for this search is <http://arXiv.org/find/cond-mat/1/ti:soliton/0/1/0/past/0/1>

Showing results 1 through 25 (of 52 total) for [ti=soliton](#)

1. cond-mat/0306645 [[abs](#), [ps](#), [pdf](#), [other](#)] :

Title: Multidimensional solitons in periodic potentials
Authors: [B. B. Baizakov](#), [B. A. Malomed](#), [M. Salerno](#)
Comments: 13 pages, 3 figures, Europhys. Lett., in press
Subj-class: Soft Condensed Matter; Pattern Formation and Solitons

2. cond-mat/0306624 [[abs](#), [ps](#), [pdf](#), [other](#)] :

Title: Adiabatic Compression of Soliton Matter Waves
Authors: [F. Kh. Abdullaev](#), [Mario Salerno](#)
Comments: to appear in J.Phys.B

3. cond-mat/0306514 [[abs](#), [ps](#), [pdf](#), [other](#)] :

Title: Thermodynamics of a bright bosonic soliton
Authors: [Vanja Dunjko](#) (1), [Christopher P. Herzog](#) (2 and 3), [Yvan Castin](#) (3), [Maxim Olshanii](#) (1 and 3 and 4) ((1) University of Southern California, Los Angeles, U.S.A., (2) Princeton University, Princeton, U.S.A., (3) Ecole Normale

Similar initiatives:

- **CERN Document Server (DCS) (physics)**
 - Different types of documents; 550.000 bibliogr. records, 220.000 full texts
 - Free registration for users
- **Chemistry preprint server (CPS) at ChemWeb**
 - Free registration
 - Still rather small collection
- **Cogprints (Cognitive sciences: psychology, neuroscience, linguistics,...) – run by Stevan Harnad (University of Southampton, UK)**
- **Etc, etc...**

Collectors and portals

- **MPRESS and MathNet: index of mathematical preprints from 110 sources (= websites from mathematical departments)**

Math-Net is a global electronic information and communication system for mathematics providing e.g.

- results of mathematical research and development,
- teaching material,
- information about working mathematicians and mathematical institutions

- **PROBLEM: Is this scalable? Can it be automated?**

Overview

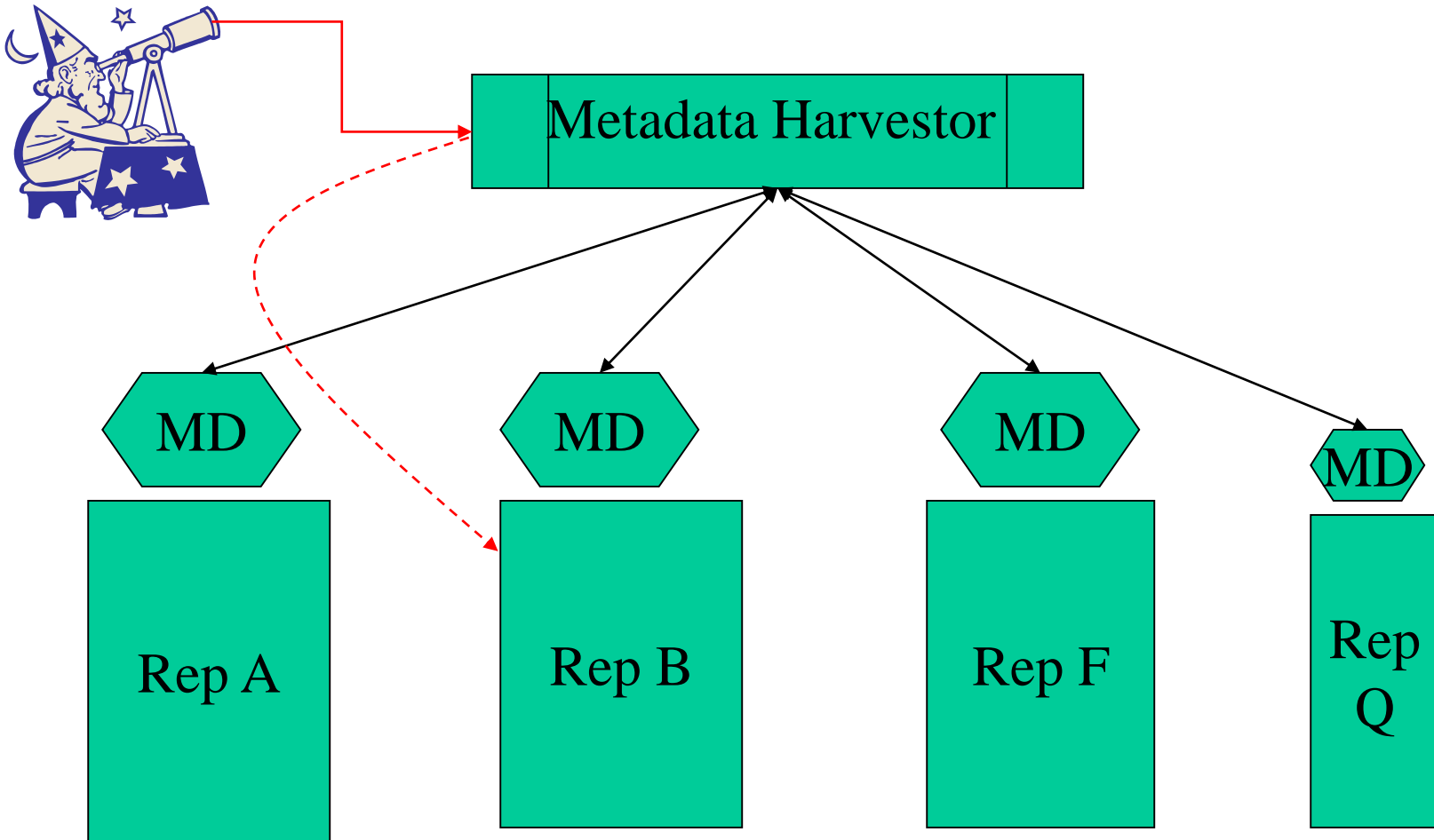
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- **What is OAI?**
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The Open Archives Initiative (OAI)



- **Purpose: interoperability between e-print servers.**
- **Metadata Harvesting protocol of the Open Archives Initiative (OAIMHP).**
- **Specification for exchange of metadata between archives ('data providers') and harvesters ('service providers')**
- **Possible uses: metadata db for large set of archives, SDI, alerting services, linking,...**
- **Version 2.0 April 2003**
- **Free software from OAI and eprints.org**
- **Other software follows (Dspace, CDSware)**
- **First harvesters arise (ARC, OAIster, CiteBase, OAI Cat...)**

OAI Metadata Harvesting Protocol (OAIMHP)



Recent evolutions

- **OAI-rights effort: launched 29-9-03**
- **Investigate and develop means of expressing rights about metadata and resources in the OAI framework**
- **Collaboration with RoMEO project (Rights MEtadata for Open archiving – JISC)**



Open Archives Initiative

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News from the OAI Community

- [NASA Technical Report Server](#). The NASA Technical Report Server (NTRS; <http://ntrs.nasa.gov/>) has been reimplemented and now uses the OAI-PMH. (6/03).
- [Internet Archive](#). The Internet Archive now provides OAI-PMH access to metadata about selected content. (4/03).
- [CDL eScholarship Repository](#). The California Digital Library announced that its groundbreaking eScholarship Repository has reached several major milestones. (3/03).
- [DSpace](#). HP Labs and MIT Libraries are pleased to announce that version 1.0 of the DSpace institutional repository software platform is available for download, evaluation, and use. (11/02).

Submit your OAI News items to
openarchives@openarchives.org.

Read Core Documents

- [Harvesting Protocol](#) (version 2.0)
- [1.1 to 2.0 Migration Instructions](#)
- [Implementation Guidelines](#)
- [FAQ](#)

Join the OAI Community

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Contact us:

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What is Open Access? (Cf. ARL)

- *Free web based access to scientific publications.*
- It is an alternative to the traditional subscription-based publishing model, made possible by new digital technologies and networked communications.
- Open Access refers to works that are created with no expectation of direct monetary return and made available at no cost to the reader on the public Internet for purposes of education and research.
- It should permit users to read, download, copy, distribute, print, search, or link to the full texts of works, 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.


Arguments for Open Access (cf. ARL)

- **Society benefits from the open exchange of ideas. Access to information is essential in a democratic society.**
- **Access to copyrighted materials inspires creativity and facilitates the development of new knowledge.**
 - **Intellectual property is the lifeblood of progress in the sciences and arts.**
 - **New knowledge is developed from existing information. Authors build on the intellectual products of others to create new works.**
- **Open Access accelerates research, enriches education, shares learning among rich & poor nations, enhances return on taxpayer investment in research.**

Short history of Open Access

- **1995: Steven Harnad's 'subversive proposal':** crusade for freeing the refereed research literature by author self-archiving. "Authors should claim the right to publish their articles on the Internet. Self-archiving is possible *now!*"
- **ESA (entomology) offers authors option to pay for open access to their papers (59% success rate!).**
- **2001: Public Library of Science:** appeal to all biomedical journals to make content freely available online 6 months after publication (+ threat of boycott). (30.000 signatories from 170 countries.)
- **Public debate on Nature website.**
- **2002: Budapest Open Access Initiative:** Encourages search for replacement of present unsustainable model.
- **Berlin Declaration 22-10-03 (MPG, DFG, CNRS, AcEur, OSI,...)**

Budapest Open Access Initiative

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Budapest Open Access Initiative

The Budapest Open Access Initiative arises from a small but lively meeting convened in Budapest by the Open Society Institute (OSI) on December 1-2, 2001. The purpose of the meeting was to accelerate progress in the international effort to make research articles in all academic fields freely available on the internet. The participants represented many points of view, many academic disciplines, and many nations, and had experience with many of the ongoing initiatives that make up the open access movement. In Budapest they explored how the separate initiatives could work together to achieve broader, deeper, and faster success. They explored the most effective and affordable strategies for serving the interests of research, researchers, and the institutions and societies that support research. Finally, they explored how OSI and other foundations could use their resources most productively to aid the transition to open access and to make open-access publishing economically self-sustaining. The result is the Budapest Open Access Initiative. It is at once a statement of principle, a statement of strategy, and a statement of commitment.

The [initiative](#) has been signed by the Budapest participants and a growing number of individuals and organizations from around the world who represent researchers, universities, laboratories, libraries, foundations, journals, publishers, learned societies, and kindred open-access initiatives. We invite the signatures, support, and participation of the entire world scientific and scholarly community.

February 14, 2003

BOAI celebrates one year anniversary
[Learn More](#)

February 14, 2003

Stay up to date on the BOAI
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3031 signatures have been added to the initiative.

✉ E-mail: openaccess@soros.org.



The Public Library of Science (PLOS) is a nonprofit organization of scientists committed to making the world's scientific and medical literature a public resource.

Our goals are to:

- Open the doors to the world's library of scientific knowledge by giving any scientist, physician, patient, or student - anywhere in the world - unlimited access to the latest scientific research.
- Facilitate research, informed medical practice, and education by making it possible to search the full contents of every published article to locate specific ideas, methods, experimental results, and observations.
- Enable scientists, librarians, publishers, and entrepreneurs to develop innovative ways to explore and use the world's treasury of scientific ideas and discoveries.

With help from a \$9 million grant from the Gordon and Betty Moore Foundation and in-kind support from the Howard Hughes Medical Institute, we have launched a nonprofit scientific publishing venture that will provide scientists with high-quality, high-profile journals in which to publish their most important work, while making the full contents freely available for anyone to read, distribute, or use for their own research.

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GO

Measure Calls for Wider Access to Federally Financed Research

By WARREN E. LEARY

WASHINGTON, June 25 — A group challenging the power of established scientific journals says legislation will be introduced to make the results of all federally financed research available to the public.

The group, the Public Library of Science, which includes scientists, doctors, researchers and their public supporters, plans to announce legislation on Thursday that would give taxpayers greater access to scientific data.

The group's objective is an open system of scientific publishing that would bypass the current system, which centers on journals that charge, through their subscriptions, for access to results.

The measure places results of research financed primarily by the government into the public domain so access cannot be prohibited by copyright, said Dr. Michael B. Eisen, a co-founder of the library, and a biologist at Lawrence Berkeley National Laboratory. The bill also calls on federal agencies to improve access to their research results.

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Bethesda Statement, 20-6-03 (U.S. medical)

Therefore:

1. We endorse the principles of the open access model.
2. We recognize that publishing is a fundamental part of the research process, and the costs of publishing are a fundamental cost of doing research.
3. Scientific societies agree to affirm their strong support for the open access model and their commitment to ultimately achieve open access for all the works they publish. They will share information on the steps they are taking to achieve open access with the community they serve and with others who might benefit from their experience.
4. Scientists agree to manifest their support for open access by selectively publishing in, reviewing for and editing for open access journals and journals that are effectively making the transition to open access.
5. Scientists agree to advocate changes in promotion and tenure evaluation in order to recognize the community contribution of open access publishing and to recognize the intrinsic merit of individual articles without regard to the titles of the journals in which they appear.
6. Scientists and societies agree that education is an indispensable part of achieving open access, and commit to educate their colleagues, members and the public about the importance of open access and why they support it.

Berlin 22-10-03

Our organizations are interested in the further promotion of the new open access paradigm to gain the most benefit for science and society. Therefore, we intend to make progress by

- encouraging our researchers/grant recipients to publish their work according to the principles of the open access paradigm.
- encouraging the holders of cultural heritage to support open access by providing their resources on the Internet.
- developing means and ways to evaluate open access contributions and online-journals in order to maintain the standards of quality assurance and good scientific practice.
- advocating that open access publication be recognized in promotion and tenure evaluation.
- advocating the intrinsic merit of contributions to an open access infrastructure by software tool development, content provision, metadata creation, or the publication of individual articles.

We realize that the process of moving to open access changes the dissemination of knowledge with respect to legal and financial aspects. Our organizations aim to find solutions that support further development of the existing legal and financial frameworks in order to facilitate optimal use and access.

Hans-Jörg Bullinger
President Fraunhofer Society

Karl Max Einhäupl
Chairman of the Wissenschaftsrat

Peter Gaethgens
President HRK

Peter Gruss
President Max Planck Society

Hans-Olaf Henkel
President Leibniz Association

Walter Kröll
President Helmholtz Association

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President German Research Foundation

Bernard Larouturou
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Jürgen Mittelstraß
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Paolo Galluzzi
Director, Istituto e Museo di Storia della Scienza
Florence

Friedrich Geisselmann, Head,
Deutscher Bibliotheksverband

Yehuda Elkana
President and Rector, Central European University
Budapest

Jean-Claude Guédon
Open Society Institute

Martin Roth
Director General, Staatliche Kunstsammlungen
Dresden

Christian Bréchet
Director General, Institut National de la Santé
et de la Recherche Médicale (INSERM)

José Miguel Ruano Leon
Minister of Education
Cultura y Deportes Gobierno de Canarias

Dieter Simon
President, Berlin-Brandenburg Academy
of Sciences and Humanities

At least one funding agency has decided that all (written) products from the funded research must be entered into an eprint archive. This is the Danish Research Centre for Organic Farming, which is a centre without walls that manages the Danish research programme on organic agricultural research.

The arguments for the decision are

- a) that all publicly funded research should be publicly accessible,**
- b) that increased accessibility is expected to increase the communication and impact of the research, and**
- c) that it provides increased possibilities for coordination, evaluation, and management of the research projects that are funded by the programme.**

Open Access will be on the agenda of the `World Summit on the Information Society', december 2003, organized by the United Nations

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Why SPARC

- **Dissatisfaction with the current scholarly communication model (expensive and slow)**
 - **Even the wealthiest institution cannot purchase access to all the information that all of its researchers require**
 - **Site-licenses and consortia deals have helped, but mainly in the richest countries**
 - **Many commercial publishers charge extra for online access**
 - **so causing more pressure on budgets**
 - **Past Library Strategies:**
 - **Journal cancellations & reduced book acquisitions**
 - **Improved document delivery**
 - **Cooperative collection development**
 - **Consortial purchasing & national site licensing**
- But: *The underlying problem persists.***

SPARC and the Serials Crisis

(Scholarly Publishing & Academic Resources Coalition)

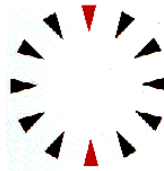
- **Launched in June 1998, The *Scholarly Publishing and Academic Resources Coalition* (SPARC) is ‘an alliance of universities, research libraries, and organizations’ that seeks to serve ‘as a catalyst for action, helping to create systems that expand information dissemination and use in a networked digital environment ... ’**
- **Under the umbrella of Association of Research Libraries (ARL)**
- **Membership based: fees + moral obligation to subscribe to SPARC partner products.**

SPARC Publishing Initiatives



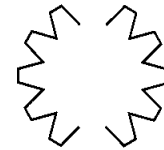
SPARC
ALTERNATIVE

- **Alternative vehicles for editorial boards**
- **Head-to-head competition with high-priced journals**



SPARC
SCIENTIFIC
COMMUNITIES

- **Broad-scale aggregation, integration**
- **Community control of broad channels**
- **Collaboration among scientists/ societies and institutions**

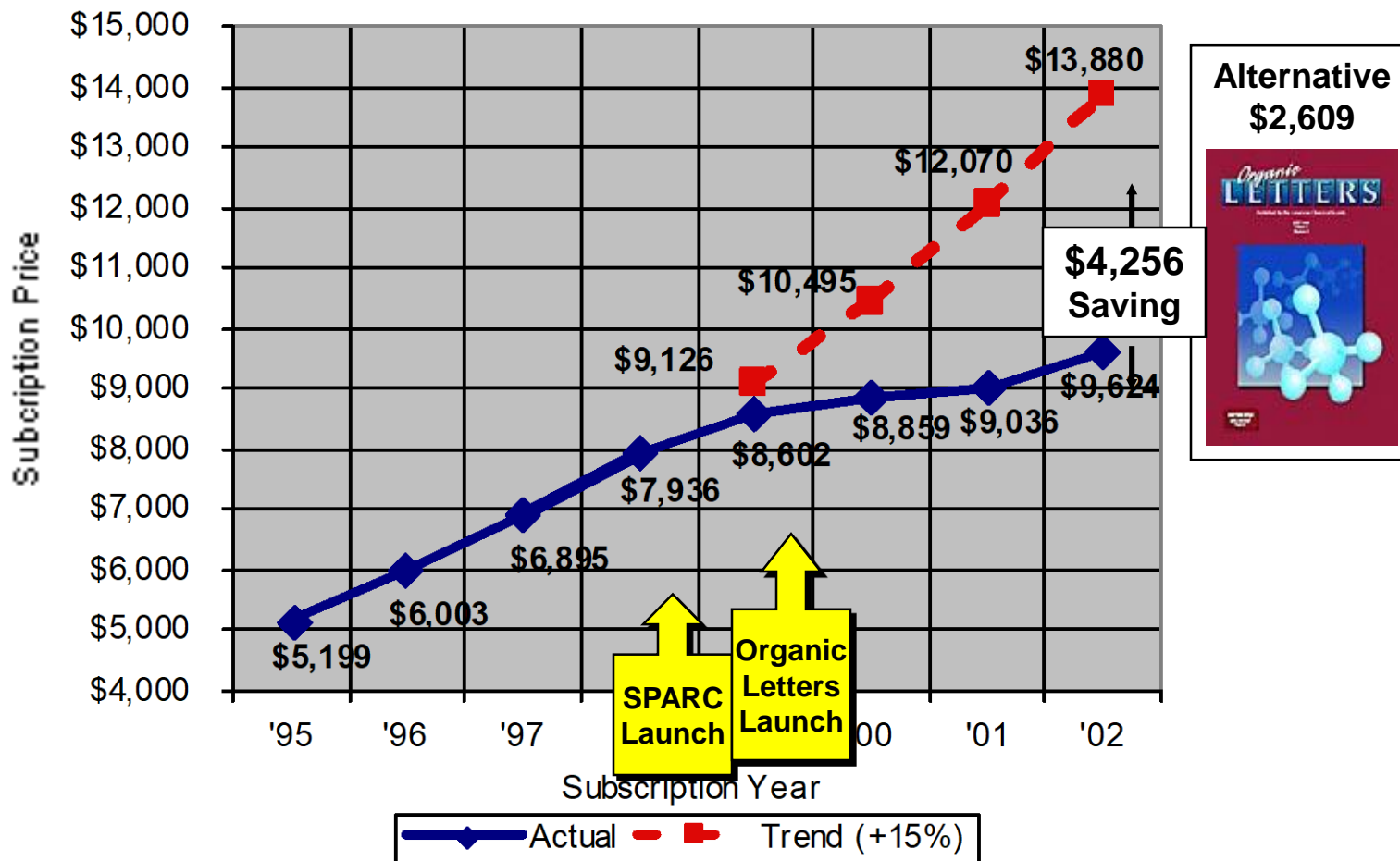


SPARC
LEADING EDGE

- **Innovative business models**
- **Alternatives to institutional subscription-based journal economy**

Competition Constrains Price

Tetrahedron Letters: U.S. Institutional Price



Theory Into Practice

- Open Access

SPARC open access journal partners:

- *Algebraic and Geometric Topology*
- *BioMed Central*
- *Documenta Mathematica*
- *Calif. Digital Library eScholarship*
- *Geometry & Topology*
- *Journal of Insect Science*
- *Journal of Machine Learning Research*
- *New Journal of Physics*

White paper on Institutional Repositories!

SPARC Europe

- **Formed in 2002 following the success of SPARC (under the umbrella of LIBER, the European Research Library Association)**
- **Encourages partnership between libraries, academics, societies and responsible publishers**
- **Currently focused on STM, but coverage expanding**
- **Has over 50 members and is growing**
- **By acting together the members can influence the future of scholarly publishing**

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Subject oriented (or disciplinary) repositories

- **arXiv**
- **CogPrints**
- **RePec**
- **ChemWeb**
- **E-LIS**
- ...

Is this the future?

Who will take responsibility?

Very slow evolution!

What are institutional repositories?

➔ ***A cross-disciplinary archive for each university!***

Essential elements:

- ***A set of services offered to university staff for the dissemination of digital materials created in the institution***
- ***Scholarly content:*** preprints and working papers, published articles, enduring teaching materials, student theses, data-sets, etc. – low submission barriers!
- ***Cumulative & perpetual:*** preserve ongoing access to material
- ***Interoperable & open access:*** free, online, global
- ***A contribution to a new “collective collection development” strategy of the libraries worldwide***
- ***A way of scholarly communication, not to be confounded with scholarly publishing (see later!)***

Theory Into Practice

- Institutional Repositories

- **Eprints.org – Southampton produced software**
- **D-Space – MIT Repository and software**
- **Other software: CDSWare (CERN), i-TOR (NL), MyCoRe (D)**

- **SHERPA & FAIR– (JISC, UK)**
- **DARE – (SURF, NL)**
- **University of California**
- **E-doc (Max Planck Gesellschaft, Germany)**
- **Australia National University**
- **...**

- **SPARC Resources –**
(<http://www.arl.org/sparc/core/index.asp?page=m0>)

Why institutional repositories?

- **For the Individual**

- Provides a central archive of their work
- Increases the dissemination and impact of their research
- Acts as a full CV

- **For the Institution**

- Increases visibility and prestige
- Acts as an advertisement to funding sources
- Can attract new staff and students, etc.

- **For Society**

- Provides access to the world's research (with OAI) (thus realizing Harnad's dream)
- Ensures long-term preservation of institutes' academic output

They may coexist with subject oriented repositories!

Most publishers do not object to posting of articles on institute's website (see Romeo), e.g.:

- **'... the exclusive distribution rights obtained by Elsevier Science refer to the article *as published*, bearing our logo and having exactly the same appearance as it has in the journal. Authors retain the right to keep preprints of their articles on their homepages (and/or relevant preprint servers) and to update their content, for example to take account of errors discovered during the editorial process, provided these do not mimic the appearance of the published version. They are encouraged to include a link to Elsevier Science's online version of the paper to give readers easy access to the definitive version.'**

<http://www.lboro.ac.uk/departments/ls/disresearch/romeo/Romeo%20Publisher%20Policies.htm>

Project RoMEO has compiled a list of existing journal publisher copyright transfer agreements.

- Publishers in **BLUE** currently support self-archiving of either the pre-refereed or the post-refereed version under the conditions stated.
- Publishers in **GREEN** support self-archiving of both versions.

RUNNING TOTAL:	Journal titles	%	Publishers	%
Total listed:	7,135		80	
Formally supporting self-archiving of EITHER preprint, post-print or both:	3,897	54.6%	34	42.5%
...both:	1,209	16.9%	20	25%
...preprint-only:	2,552	35.7%	7	8.7%
...postprint-only:	136	1.9%	7	8.7%
Not yet formally supporting self-archiving:	3,238	45.3%	46	57.5%

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From dissemination to publication?

- A scientific publication is much more than a scientific writing made public!
- Traditional journals integrate the following functionalities:
 - **Registration** (*establishing intellectual priority*)
 - **Certification** (*certifying the quality/validity of the research*)
 - **Awareness** (*assuring the accessibility of the results*)
 - **Archiving** (*preserving the research output for future use*)
- First and most important result of Open Access is “**Awareness**” (cfr. S.Harnad: wants to concentrate all efforts on this aspect only...)
- “**Registration**” possible through electronic legal deposit
- “**Archiving**” if servers are maintained by stable organisations
- Many experiments try to combine all functionalities, including “**Certification**”
 - ➔ Open Access Publishing: (only a) long-term goal!

Certification: Quality Control

- **Why is it necessary?**
 - It is part of the process through which our global validated knowledge database is constructed
 - Important for academic recognition of authors, and therefore for success of the communication system.
 - Guarantee of quality for the reader, who is confused by information overkill.
 - Evaluation method for academic authorities.
 - It improves the quality of the publications
- **Peer review organisation is the main cost**
 - Organisation: estimated at € 300-500 per article.
 - Payment by author (or his institute) most reasonable source of revenue

- **Arguments to charge QC to the author:**
 - **it is the author who gets the intellectual reward for the refereed publication**
 - **covering the bill should make the author more aware of the publication cost**
 - **the dissemination of scholarly work should be considered to be an essential part of the process of publicly funded research**
- **How should it be organised?**
 - **Existing editorial boards may take charge**
 - **Learned societies (the ‘roots’ of the journals!) could take their responsibility for peer review**
 - **Library organizations (ARL, LIBER, SPARC) should take actions for increasing awareness and acceptance in academic community**
 - **Management tools (software) are becoming available**

Model 1: Open Access journals

- **ESA (entomology) offers authors option to pay for free access (59% success rate!).**
- **BioMed Central: 90 peer reviewed journals, freely accessible (author pays \$ 500 per paper – also institutional memberships).**
- **Two new journals from the Public Library of Science: *PLoS Biology* and *PLoS Medicine* (but \$ 1500 per article...)**
- **Indian Academy of Sciences has made their 11 journals available free online**
- **And many more...**
- **DOAJ: Directory of Open Access Journals (already 542 !)**

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Volume 1 Number 1, October 2003

Editorial

PLOS Biology—We're Open

Philip Bernstein, Barbara Cohen, Catriona MacCallum, Hemai Parthasarathy, Mark Patterson, and Vivian Siegel

PLOS Biol. 2003 October; 1(1): **e34**. Published online 2003 October 13.

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Why PLoS Became a Publisher

Patrick O Brown, Michael B Eisen, and Harold E Varmus

PLOS Biol. 2003 October; 1(1): **e36**. Published online 2003 October 13.

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Synopsis

Functional Analysis of RSS Spacers

PLOS Biol. 2003 October; 1(1): **e4**. Published online 2003 October 13.

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Model 2: Overlay journals

- **Peer review journal can sit above a group of repositories to form a virtual ‘overlay’ journal**
- **Overlay journals give stamp of quality to the research presented in the repositories**
- **Existing journals could convert to overlay journals or new journals could be launched**
- **Organisation of an overlay journal should be relatively cheap: no editing, no printing, no full text serving; only: caring for peer review, posting results (quality stamps) and linking to full text on remote repositories**
- **Overlay journals should be open access**

Aspects of overlay journals

- **E-print before peer review: no information delay!**
- **Separate organisation for peer review and for distribution: virtual overlay journals on the basis of links to one or more archives.**
- ***Required:* Extension of OAMHP for QC metadata (would be very helpful for overlay journals!).**
- **Many web-based improvements of old QC system are possible!**
- **Interactive peer review, e.g.: *Journal of Interactive Media in Education (JIME)*: reviewers are known to author, conversational process, reviews and reader comments linked to final publication...**
- **Obtain new (automated) metrics for QC (counting of citations, downloads,...).**

➔ *Peer reviewed OA journals may offer ideal solution for authors and readers!*

- **Authors want - maximal and rapid dissemination
- but also publication in prestigious journal
(somehow contradictory, due to high prices!!)**
- **As readers, the researchers want full access to publications, but they also like the quality guarantees that are (up to a certain degree) offered by the existing peer review system**

Overview

- The prehistory
- What is OAI?
- What is Open Access?
- SPARC and the serials crisis
- Subject oriented or Institutional repositories
- From dissemination to publication?
- **The librarian's schizophrenia**

Schizophrenia in the library

- Questions asked by symposium organisers:
 - Is it really possible for scientific publishing to do away with the intermediation of large profit-seeking organizations; are there unpleasant, possibly even disastrous side-effects?
 - Is it the duty of academic libraries to start boycotting high-price printed journals however widely used; should we rechannel our resources to support the new generation of alternative journals?
 - Is it the duty of scientists - especially the most prominent among them - to stop publishing in, refereeing for, and staffing the editorial board of conventional journals, however prestigious, in order to feed alternative journals with the best of their output?
 - What is the role of education and research ministries, etc.?

- These questions are not trivial. This can be seen from the schizophrenic actions of librarians and scientists alike:
 - Signing of “Big Deals” with publishers ↔ working for alternative solutions
 - Complaining about high journal prices ↔ publishing in “high impact” (and high price?) journals
- First duty of the library is to serve the academic community by providing information (now and in the future).
 - For the moment, it remains our task to provide access to all important scientific sources
 - For the future, we must work now towards instruments that tomorrow can be used in an affordable and efficient way
- The “hybrid” library therefore does not only indicate the mixture between **paper** and **digital**, but also between **commercial** and **alternative** communication channels!

- Libraries should continue to provide the necessary scientific information, but they should spend their scarce money wisely and critically (e.g., make cost analysis like € per page or € per accessed paper!)
- Simultaneously, libraries should encourage OA initiatives or take the lead; they should demonstrate to their constituency and to the authorities the (long-term) advantages of OA
- Scientists (especially the young ones) should not jeopardize their future; let them publish in good journals, but at the same time post their publications in an Open Access archive (*select journals that allow this: cfr. Romeo list*)
- Scientists may consider refusing to referee for the journals that are too expensive; editorial boards should use their influence (or threaten to resign..., cfr. SPARC examples)
- When more peer-reviewed open access journals become available, top researchers should feel responsible for helping them achieve good impact ratings (through publishing and through editorial tasks)

- Information technology offers enormous possibilities for better and cheaper communication; this does not mean that we should try to kill the publishers: we should pay them for their added value (but not more!)
- We should not be afraid of some temporary chaos: it may lead to an improved state (cfr. steel making!)
- Existing experiments show that alternatives are possible and affordable, that they are gaining worldwide credibility
- Intermediate experiments should be encouraged as important steps towards a final solution
- Libraries should take the lead (information responsibility!), but they should involve the whole academic community
- Scientific assessment committees and funding agencies should accept these OA publications and encourage new models, out of concern for an optimal spending of the research money
- Future model may be uncertain, but it will be **online** and with **open access**!

What Libraries Can Do

- **Self-archiving:**
 - **Maintain institutional repository.**
 - **Help faculty archive their research papers, new & old, digitizing if necessary.**
- **Make sure scholars at your institution know how to find open access journals and archives in their fields (point to the harvesters!). Set up tools to allow them to access these. *[What about Stellenbosch???***
- **As open access journals proliferate, and as their usage and impact grow, cancel over-priced journals that do not measure up.**
- **Familiarize yourself with the issues – see *Create Change* at <www.createchange.org>.**

Conclusion

- **Modern ICT offers possibilities to solve the journal crisis, but we have to overcome the threshold of inertia**
- **We should not be afraid of experimental models: one of them may bring us the solution**
- **There is still a long way to go, on two fronts:**
 - **the development of a new system, especially for QC**
 - **awareness raising in the academic world**
- **In the meantime, libraries should continue to give researchers access to the relevant scientific information, but with a critical attitude to what is offered**
- **All involved stakeholders (universities, societies and commercial publishers) are invited to join the concerned libraries in their search for a fair-priced system for scientific communication**

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*Let us enjoy Open Access
like we enjoy an open bottle
of good wine...*



*... and other pleasant things
in life!*