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III WORKSHOP DE PROYECTOS DIGITALES

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OPEN SESAME: UNLOCKING THE BARRIERS TO RESEARCH



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SCHOLARLY PUBLISHING & ACADEMIC RESOURCES COALITION
SPARC EUROPE

www.sparceurope.org

Open Sesame - Unlocking the Barriers to Research

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SPARC Europe

www.sparceurope.org

Scholarly Publishing & Academic Resources Coalition

- Formed in 2002 following the success of SPARC (launched in 1998 by the US Association of Research Libraries)
- Encourages partnership between libraries, academics, societies and responsible publishers
- Currently focused on STM, but coverage expanding
- Has over 60 members and is growing
- By acting together the members can influence the future of scholarly publishing

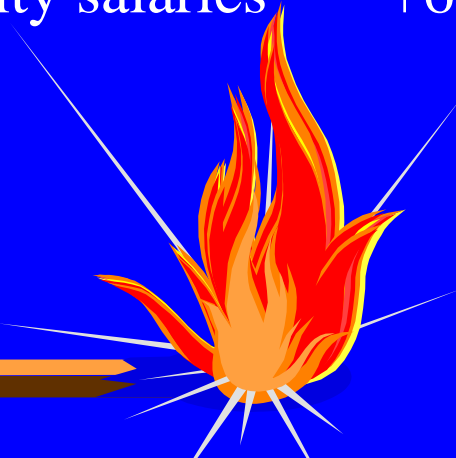


The Global Journals Problem

www.sparceurope.org

UK 1989-99

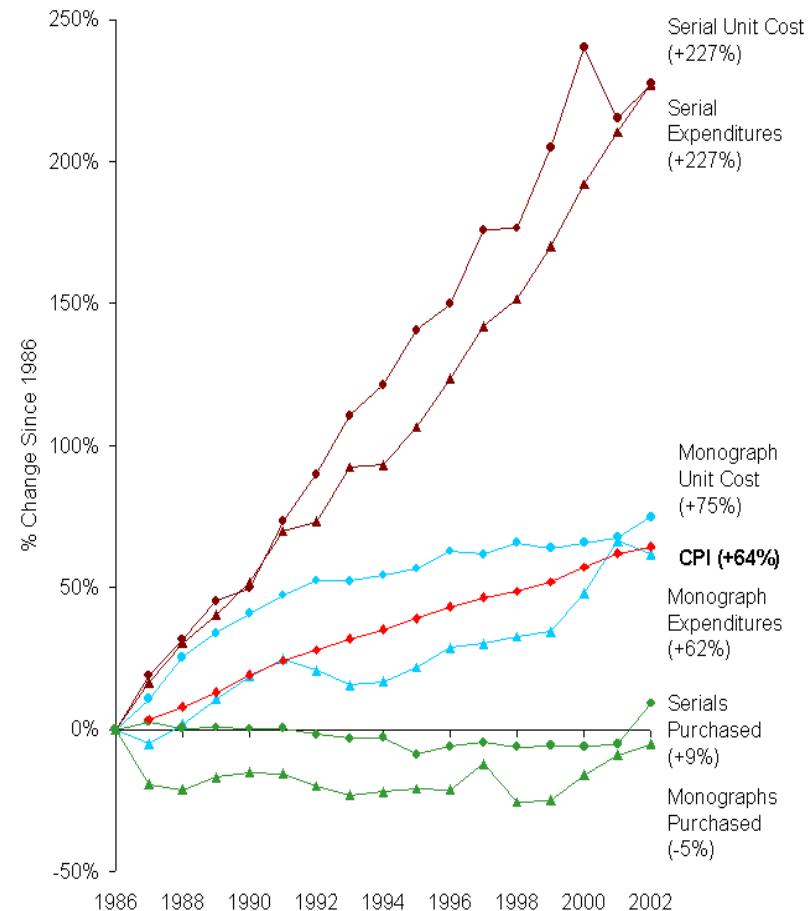
Journals unit cost +364%
Faculty salaries +60%



Australia 1986-98

Serials unit cost +474%
Serials expenditure +263%
Titles purchased - 37%

Graph 2
Monograph and Serial Costs
in ARL Libraries, 1986-2002



Source: ARZ Statistics 2001-02, Association of Research Libraries, Washington, D.C.



The Situation Today

- Dissatisfaction with the current scholarly communication model
- Even the wealthiest institution cannot purchase access to all the information that all of its researchers require
- Many publishers charge extra for online access – so causing more pressure on budgets
- Site-licenses and consortia deals have helped, but mainly in the richest countries



The Situation Today - Dissatisfaction

- Authors
 - Their work is not seen by all their peers – they do not get the recognition they desire
 - Despite the fact they often have to pay page charges, colour figure charges, reprint charges, etc.
 - Often the rights they have given up in exchange for publication mean there are things that they cannot do with their own work
- Readers
 - They cannot view all the research literature they need – they are less effective
- Libraries
 - Cannot satisfy the information needs of their users
- Society
 - We all lose out if the communication channels are not optimal.



Aggregated system

Scholarly publishing comprises four functions:

REGISTRATION Establishing intellectual priority	CERTIFICATION Certifying the quality/validity of the research	AWARENESS Assuring accessibility of research	ARCHIVING Preserving research for future use
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Current model:

- Integrates these functions in journals
- This made sense in print environment



Unlocking opportunities

- Opportunities for **expanded access** and **new uses** offered by
 - ever-expanding networking
 - evolving digital publishing technologies and business models
- Better ways to handle increasing volume of research generated
- Technology offers the chance for research and library communities to take back control of scholarly communication



Budapest Open Access Initiative

Two complementary strategies:

- **Self-Archiving:** Scholars should be able to deposit their refereed journal articles in open electronic archives which conform to **Open Archives Initiative** standards
- **Open-Access Journals:** Journals will not charge subscriptions or fees for online access. Instead, they should look to other sources to fund peer-review and publication (e.g., publication charges)



What are institutional repositories (open archives)?

Essential elements

- *Institutionally defined*: Content generated by institutional community
- *Scholarly content*: preprints and working papers, published articles, enduring teaching materials, student theses, data-sets, etc.
- *Cumulative & perpetual*: preserve ongoing access to material
- *Interoperable & open access*: free, online, global



Why institutional repositories?

- **For the Individual**
 - Provide a central archive of their work
 - Increase 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, potential new faculty and students, etc.
- **For Society**
 - Provide access to the world's research
 - Ensures long-term preservation of institutes' academic output



How institutional repositories?

REGISTRATION

Establishing
intellectual
priority

CERTIFICATION

Certifying the
quality/validity
of the research

AWARENESS

Assuring
accessibility
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ARCHIVING

Preserving
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- Institutional repositories supply basic step of initial registration
- Accommodate increased volume of research output



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- Awareness services enabled by Open Archives Initiative (OAI)-compliance & interoperability
- Search engines index the metadata harvested from federated repositories (e.g., descriptive metadata, references, certification metadata, usage information)



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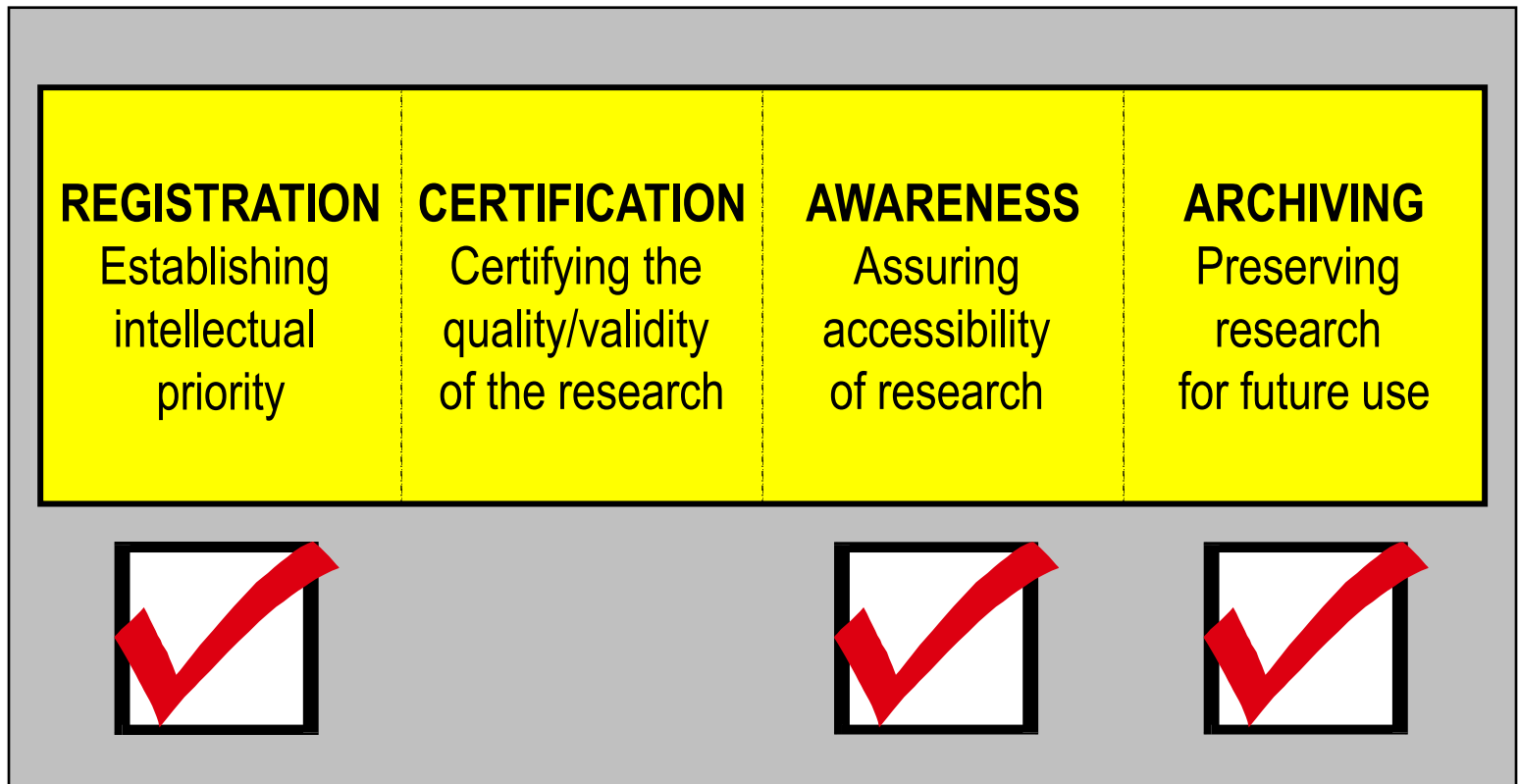
Preserving
research
for future use



- No final answer on archiving
- However, disaggregation helps put librarians—rather than journal publishers—in charge of digital archiving



Institutional Repositories - The Four Functions





Certification

- Certification gives:
 - Authors – Validation of their work (important for promotion and grant applications)
 - Readers – Quality filter
- Journals would provide peer review services for a sub-set of the material in the Institutional Repositories
- The journals would give a ‘quality stamp’ to the research presented in the Repositories
- Journals should be open access



Open Access

What is it?

Call for *free, unrestricted access* on the public internet to the literature that scholars give to the world *without expectation of payment*.

Why?

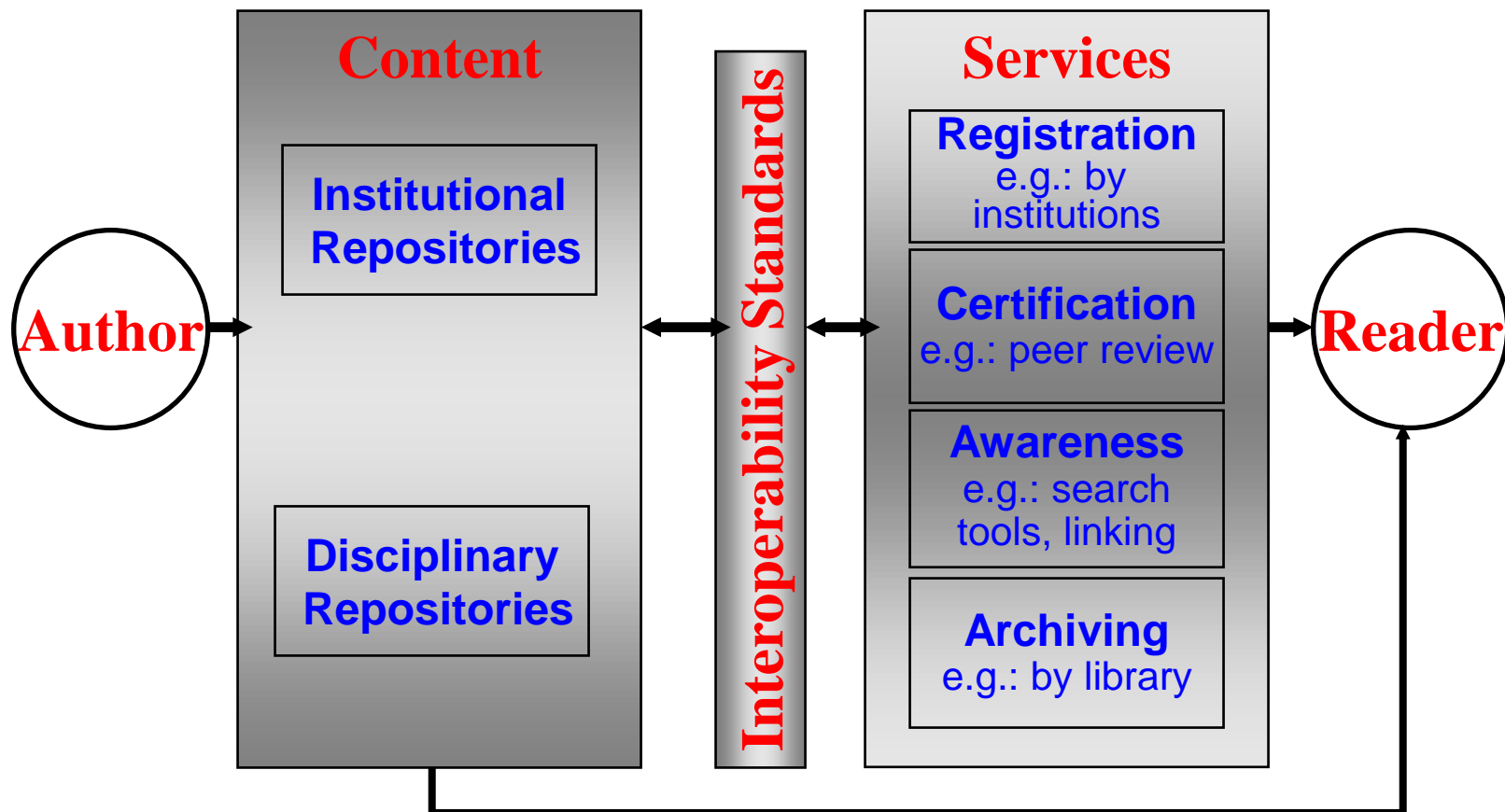
Widen dissemination, accelerate research, enrich education, share learning among rich & poor nations, enhance return on taxpayer investment in research.

How?

Use existing funds to pay for *dissemination*, not *access*.



How the pieces work together



Open repositories lessen or eliminate the content monopoly of journals.

Societies, publishers, institutions, new entrants are service providers.



Theory Into Practice

- Institutional Repositories

www.sparceurope.org

- Eprints.org – Southampton produced software
- D-Space – MIT Repository, expanding to Cambridge, UK
- CDSWare – CERN
- ARNO – Tilburg, Amsterdam, Twente

- SHERPA – UK
- DARE – The Netherlands

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



Theory Into Practice - Institutional Repositories

www.sparceurope.org

Australian National University

Universite de Montreal

Aalborg University

Universitat Essen

Universitat Stuttgart

Utrecht University

Lunds Universitet

CERN

National University of Ireland

University of Bath

University of Glasgow

University of Nottingham

California Digital Library

Caltech

MIT

Academy of Sciences, Belarus



Theory Into Practice - Service Providers

- Arc Search engine
- Callima Search engine
- citebaseSearch Search engine (with citation ranking)
- CYCLADES Search engine
- DP9 Presents OAI archives hidden in the deep Internet
- iCite Citation indexing system covering physics journals
- my.OAI Search engine
- NCSTRL Unified access to archives in computer sciences
- OAIster Search engine
- Perseus Search engine in humanities
- Public Knowledge Discipline-specific OAI metadata harvesting Harvester service
- Scirus Elsevier Science search engine
- TORII Unified access to various open archives (physics and computer Science)



...find the pearls

[Home](#)[Search](#)[View Institutions](#)[Help](#)

Use this form to find digital resources ([what is a digital resource?](#)) from many institutions ([which institutions are available?](#)).

Why do I sometimes get duplicate records?

Why do I sometimes have trouble accessing digital objects?

Check out [this explanation](#).

See [help](#) for search tips.

Search all fields [\(help\)](#)

Use a word or phrase, e.g., diploma*, fancy dress

and or

Search within particular fields [\(help\)](#)

Use a word or phrase, e.g., diploma*, fancy dress

Title: and

Author/
Creator: and

Subject: and

Resource
Type:

Choose sorting of results [\(help\)](#)

e.g., results in date descending order, from 2002 to 1999

title author/creator

date descending date ascending

hit frequency weighted hit frequency



Theory Into Practice - Open Access

www.sparceurope.org

- SPARC open access journal partners:
- *Algebraic and Geometric Topology*
 - *BioMed Central* (published 2500+ papers)
 - *Documenta Mathematica*
 - *Calif. Digital Library eScholarship*
 - *Geometry & Topology*
 - *Journal of Insect Science*
 - *Journal of Machine Learning Research*
 - *New Journal of Physics*



Theory Into Practice

- Open Access

- Two new journals from the Public Library of Science
 - *PLoS Biology* and *PLoS Medicine*
- Indian Academy of Sciences has made their 11 journals available free online
- Lund Directory of Open Access Journals (<http://www.doaj.org/>) – over 525 peer-reviewed open access journals
- Sabo – ‘Public Access to Science’ Act
- Wellcome Trust support of Open Access



Theory Into Practice - Open Access

The power of open access:

- The average number of downloads for articles in ScienceDirect over the past year was **28 times**
- Over the same period the average number of downloads for articles in BioMedCentral was **2,500 times**

Open Access gives **89 times** as much usage as closed, subscription-based access!

Figures from Peter Suber



Open Access – Making the Transition

- Give Authors the choice:
 - If they pay a publication charge the paper is made open access on publication.
 - If they do not pay the publication charge the paper is only made available to subscribers.
- Over time, as proportion of authors who pay increases subscription prices can fall
- Eventually, entire journal is open access

(<http://www.sparceurope.org/Open%20Access/From%20Here%20to%20There.doc>)



Open Access – Making the Transition

- A number of ‘traditional’ publishers are transforming their closed access journals into open access journals:
 - Oxford University Press
 - Company of Biologists
 - American Physiological Society
 - Florida Entomological Society
 - Entomological Society of America
 - Infotrieve



Practical issues

Impediment to formal publication?

- Trend for publishers to accept that online posting is not prior publication
- Develop discipline-specific policies

Intellectual property issues

- Repository registration protects priority
- Retain rights to e-print
- <http://www.lboro.ac.uk/departments/dis/disresearch/romeo/index.html>
- No more plagiarism online than offline



Practical issues

Perceived quality

- Label & differentiate types of content
- Reveal certification methods

Rewarding scholars' participation

- Should funding agencies and institutions reward scholars for depositing work in institutional repository?
- Should funding agencies and institutions reward scholars for publishing in open access journals?



What Libraries Can Do

Self-archiving:

- Maintain institutional repository
- Help faculty deposit their research papers, new & old, digitizing if necessary

Open-access journals:

- Help open access journals launched at your institution become known to other libraries, indexing services, potential funders, and potential readers



What Libraries Can Do

- Make sure scholars at your institution know how to find open access journals and archives in their fields. Set up tools to allow them to access these
- 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>
- Engage with university administrators, scholars, funding bodies, etc. to raise the issues
- Support SPARC Europe to multiply your effort



What Academics Can Do

- Support open access journals, by submitting and reviewing papers, reading and citing articles
- Launch new open access journals if appropriate
- Deposit papers in local repository
- If an Editor or Board member discuss publication rights, open access, and reasonable prices with their publisher
- Discuss with funding bodies and university administrators funding and promotion criteria – ensure that faculty are not penalized for using repositories or publishing in open access journals
- Lobby funding bodies for specific publication funds



Theory Into Practice

- Building Momentum

- Increasing numbers of libraries are taking on role of hosts for institutional repositories
- More open access journals prove the feasibility of the business model
- Open access journals are attracting quality authors, readers, and editors
- Increasing awareness of authors of need to retain their publishing rights
- Increasing awareness of the power of editors and editorial boards
- Increasing awareness amongst funding bodies of publishing issues
- Entry level for new players reduced
- Membership of SPARC Europe increasing



Create Change!

www.sparceurope.org

“Although the battle is being fought over subscription prices, what is really at stake...is the scientific process itself.”

New York Times, Dec. 8, 1998

“ An old tradition and a new technology have converged to make possible an unprecedented public good. ”

Budapest Open Access Initiative, Feb. 14, 2002

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