Institutional Repositories & Open Access – The Future of Scholarly Communication?

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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
- 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
Unlocking opportunities

- Opportunities for **expanded access** and **new uses** offered by:
  - evolving digital publishing technologies
  - ever-expanding networking

- Better ways to handle increasing volume of research generated

- Technology offers the chance for academia to take back control of scholarly communication
What are institutional repositories?

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
Scholarly publishing comprises four functions:

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Current model:
- integrates these functions in journals
Disaggregated system

Scholarly publishing comprises four functions:

**ARCHIVING**
Preserving research for future use

**AWARENESS**
Assuring accessibility of research

**CERTIFICATION**
Certifying the quality/validity of the research

**REGISTRATION**
Establishing intellectual priority

**Disaggregated models:**
- Allow functions to be fulfilled independently – by logically discrete, networked service providers
- Reveal that academy contributes most of value
How institutional repositories?

- Institutional repositories supply basic step of initial registration
- Accommodate increased volume of research output (No page limits, can accept ‘null results’, large data-sets, etc.)
How institutional repositories?

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

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

- Certification necessary to validate registration
- Repository “certification” essentially imprimatur of sponsoring institution/department (sometimes more, sometimes less)
- Disaggregation allows new mechanisms for certification in addition to peer review
Certification

- Peer review journals sit above institutional repositories to form ‘overlay journals’
- 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
- Overlay journals should be 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?
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.
Move to Open Access

- Can you reduce costs by not producing print journal (or using new digital printing technology)?
- Can you use funds from:
  - Academies
  - Libraries
  - Government
  - Independent foundations
  - Authors

to cover online production costs?
Advantages to Academies of Open Access Journals

- They increase the dissemination of the work of your authors from a few hundred institutes to everybody in the world with web access.
- They increase the profile of your Academy and the research being done in your country.
- By removing print and postage they reduce costs.
Advantages to Academies of Open Access Journals

- They allow the possibility of revitalising non-English language publishing
- By promoting a new model, they offer a future where all the world’s literature is available to all readers
Theory Into Practice - Institutional Repositories

- SHERPA – UK
- DARE – The Netherlands
- D-Space – MIT Repository, expanding to Cambridge, UK
- National University of Ireland (NUI), Maynooth
- SPARC Resources – (http://www.arl.org/sparc/core/index.asp?page=m0)
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*
Theory Into Practice
- Open Access

- Two new journals from the Public Library of Science
- Indian Academy of Sciences has made their 11 journals available free online
Next Steps

- Set up institution repositories
- Transform existing journals to online, open access journals
- Support academy-friendly author/publisher agreements
- Deposit material in your local institutional repository
- Join SPARC Europe
SPARC Europe

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 50 members and is growing
- By acting together the members can influence the future of scholarly publishing
Measures of Success

- SPARC supported projects are financially viable and significantly less expensive
- SPARC supported products are attracting quality authors and editors
- New players have entered the STM marketplace (SPARC partners and others)
- Created an environment where editorial boards are emboldened to take action
- STM journal price increases have moderated
- New models are gaining acceptance
“Although the battle is being fought over subscription prices, what is really at stake...is the scientific process itself.”


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