



SCHOLARLY PUBLISHING & ACADEMIC RESOURCES COALITION
SPARC EUROPE

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Public Policy and Public Access: How the International Knowledge Economy is Driving Open Access

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SPARC Europe

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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
- Originally focused on STM, but coverage expanding
- Has over 110 members in 14 countries
- By acting together the members can influence the future of scholarly publishing



Political Agents for Change

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Scholarly Communication is being impacted by a number of public policy drivers;

- The ‘knowledge economy’ (e.g. the Lisbon agenda)
- Accountability and assessment – ‘value for money’
- E-Science / E-Research
- Concerns regarding access to data
 - Freedom of Information Culture
 - Social agent – the ‘Facebook Generation’



Political Imperative – Lisbon Agenda

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In March 2000, the EU Heads of States and Governments agreed their aim to make the EU **‘the most competitive and dynamic knowledge-driven economy by 2010’**.

One of the key strategic means of achieving this goal was identified as **‘preparing the transition to a knowledge-based economy and society by better policies for the information society and R&D...’** and specifically increasing investment in R&D to **3% of GDP**



Knowledge Economy

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‘We want the UK to be a key knowledge hub in the global economy, with a reputation not only for world-class scientific and technological discovery but also for turning that knowledge into new and profitable products and services.’

Tony Blair

In a post-industrial economy there is increasing acknowledgement of the relationship between:

- Investment in R&D
- Access to knowledge
- Technology transfer
- Wealth creation



Accountability and Assessment – 'Value for Money'

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With increased spending on R&D and education comes increased desire for accountability and assessment of:

- Universities
- Departments
- Libraries
- Research Groups
- Individuals

And with more assessment comes a desire for more metrics of success:

- Number of citations
- Who is citing whom
- Downloads
- Patent registration
- Rate of technology transfer

And a desire to streamline the assessment process

(Note the plan to base future UK Research Assessment Exercises on metrics)



E-Science / E-Research

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‘Scientists developing collaboration technologies that go far beyond the capabilities of the Web

- To use remote computing resources
- To integrate, federate and analyse information from many disparate, distributed, data resources
- To access and control remote experimental equipment

Capability to access, move, manipulate and mine data is the central requirement of these new collaborative science applications’

Tony Hey

Successful E-Science needs:

- Resources to integrate, federate and analyse
- Interoperability
- Open access



Access to Data

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Allowing data to be used, reused, repurposed, shared, mined, etc. makes it more valuable:

- Human Genome Project
- Clinical trials
- Weather and environmental data,
- Chemical structures, etc. etc.

National Institutes for Health - USA

‘In NIH's view, all data should be considered for data sharing. **Data should be made as widely and freely available as possible while safeguarding the privacy of participants, and protecting confidential and proprietary data.**

http://grants2.nih.gov/grants/policy/data_sharing/data_sharing_guidance.htm

OECD

Science, Technology and Innovation for the 21st Century. Meeting of the OECD Committee for Scientific and Technological Policy at Ministerial Level, 29-30 January 2004, ‘Declared their commitment to:

‘Work towards the establishment of access regimes for digital research data from public funding in accordance with the following objectives and principles:

‘**Openness, Transparency**, Legal conformity, Formal responsibility, Professionalism, Protection of intellectual property, **Interoperability**, Quality and security, Efficiency, Accountability.’

http://www.oecd.org/document/0,2340,en_2649_34487_25998799_1_1_1_1,00.html

RNA -- Sign In Page - Microsoft Internet Explorer

Address <http://www.rnajournal.org/cgi/content/full/11/2/173>

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 MARIS et al. *RNA*.2005; 11: 173-186.

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Circulation Research -- Subscription Status - Microsoft Internet Explorer

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The Situation Today – Dissatisfaction at Many Levels

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- 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
 - Even libraries at the wealthiest institutions cannot satisfy the information needs of their users
- Funders
 - Want to see greater returns on their research investment
- Society
 - We all lose out if the communication channels are not optimal.



Open Access

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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*.



Budapest Open Access Initiative

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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)

<http://www.soros.org/openaccess/>



The Power of Open Access

- The 72% of papers published in the *Astrophysical Journal* for which free versions of the papers are available are, on average, cited **twice** as often as the remaining 28% that do not have free versions.

Figures from Greg Schwarz

- Tim Brody from Southampton has shown that papers for which there is also a free version available have, on average, greater citations than those that are only available through subscriptions

http://citebase.eprints.org/isi_study

- Open access PNAS papers have 50% more full-text downloads than non-open access papers

<http://www.library.yale.edu/~license/ListArchives/0505/msg01580.html>

- ...and are on average twice as likely to be cited

<http://biology.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pbio.0040157>



Open Access Policies

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As the public policy agenda develops we are seeing an increasing number of policies relating to open access from:

- Research groups
- Universities
- Research centers
- Funding bodies
- Governments
- National and international bodies



Berlin Declaration in Support of Open Access

- ‘Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society.’
- Signatories (currently 249 signatories world-wide) should promote open access by
 - encouraging researchers/grant recipients to publish in open access.
 - encouraging the holders of cultural heritage to support open access by providing their resources on the Internet.
 - developing means 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.
- Issued on 22nd October 2003

<http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>



European Commission Study

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- ‘Study on the economic and technical evolution of the scientific publication markets in Europe’
- Concludes that ‘...policies should make sure that the market is sufficiently competitive and ‘dissemination-friendly’. In particular, they should address the need to:
 - enhance access to research output;
 - prevent strategic barriers to entry and to experimentation.
- **Recommendation A1. Guarantee public access to publicly-funded research shortly after publication**
 - Research funding agencies ... should promote and support the archiving of publications in open repositories, after a ... time period to be discussed with publishers. This archiving could become a condition for funding.
 - The following actions could be taken at the European level: (i) Establish a European policy mandating published articles arising from EC funded research to be available after a given time period in open access archives, and (ii) Explore with Member States and with European research and academic associations whether and how such policies and open repositories could be implemented.

http://europa.eu.int/comm/research/science-society/pdf/scientific-publication-study_en.pdf



European Commission Study

- Commission has issued a ‘Communication’ which includes:
 - A commitment to include open access publishing costs in EC grants
 - The promise of specific guidelines to be issued, within specific programmes, on the publication of articles in open repositories. For example, the **European Research Council (ERC) Open Access Mandate**.
 - Significant funding for repository infrastructure and digital preservation
 - Funding of research on publication business models and on the scientific publication

http://ec.europa.eu/research/science-society/document_library/pdf_06/communication-022007_en.pdf



Open Access Policies

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The Wellcome Trust, UK

- From October 1 2006, it became a condition of funding that copy of any **original research paper** published in a peer-reviewed journal must be deposited into PubMed Central (PMC). http://www.wellcome.ac.uk/doc_WTX022827.html

Research Councils, UK

- Six of the seven UK research Councils require deposit of papers in freely accessible electronic repositories. http://www.sparceurope.org/press_release/RC%20OA%20policies%20v1.5.xls

National Institutes of Health (NIH), US

- The NIH is the world's largest non-military research funder, spending just under \$30 billion per year
- In December 2007 a provision directing the NIH to provide the public with open online access to findings from its funded research was passed into law.
- Now grant recipients are required to deposit electronic copies of their peer-reviewed manuscripts into PubMed Central no later than 12 months after publication in a journal.
- Approximately 80,000 papers each year could be made freely available as a result of the policy

<http://www.taxpayeraccess.org/media/release07-1226.html>



Irish Research Council for Science, Engineering and Technology (IRCSET)

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- IRCSET will allocate approximately €26.0 million in 2008 to the development of early stage research careers....
- ...Where a research publication arises in whole or in part from IRCSET funded research..., the following policy will be adhered to with effect from 1st May 2008.....
 - All researchers must lodge their publications... **within six calendar months at the latest;**
 - Authors should deposit **post-prints** (or publisher's version if permitted) plus metadata of articles accepted for publication;
 - **Deposit should be made upon acceptance by the journal/conference.** Repositories should release the metadata immediately, with access restrictions to full text article to be applied as required. **Open access should be available as soon as practicable after the author-requested embargo, or six month, whichever comes first;**

http://www.ircset.ie/news/releases/080501_OpenAccessPolicy.html



Funding Bodies - The Future

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- The last three years has seen funding agencies in Europe and US begin to take an interest in open access
- They see dissemination as part of the research process and publication costs as research costs
- We will continue to see increasing high-level support for open access
- We can expect further policy statements over the next year, some of which will mandate deposit in suitable repositories
- These policies and high-level support will underpin work on institutional repositories



Self-Archiving Policies

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Research Organisations:

- CERN – Requires researchers to deposit papers in the CERN repository
- CNRS (Centre National de la recherche scientifique)

Institutions:

- Harvard University – February 2008
- Queensland University of Technology
- Bielefeld University
- University of Bremen
- University of Hamburg
- Universidade do Minho
- University of Southampton
- Case Western Reserve University
- University of Oslo

<http://www.eprints.org/signup/fulllist.php>



European University Association

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Recommendations for University Leadership

- Universities should develop institutional policies and strategies that foster the availability of their quality-controlled research results for the broadest possible range of users, maximising their visibility, accessibility and scientific impact.
- The basic approach ...should be the creation of an institutional repository or participation in a shared repository..
- University institutional policies should require that their researchers deposit (self-archive) their scientific publications in their institutional repository upon acceptance for publication. Permissible embargoes should apply only to the date of open access provision and not the date of deposit.
- ...It should be the responsibility of the university to inform their faculty researchers about IPR and copyright management...
- University institutional policies should explore also how resources could be found and made available to researchers for author fees to support the emerging "author pays model" of open access.

http://www.eua.be/fileadmin/user_upload/files/Policy_Positions/Recommendations_Open_Access_adapted_by_the_EUA_Council_on_26th_of_March_2008_final.pdf



Open Access – A Policy Issue

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Open Access policies are:

- Welcomed by authors
- Complied with by authors
- Compatible with copyright and respect authors' moral rights
- Compatible with patent registration
- Respectful of academic and intellectual freedoms
- Aligned with the aims of most funding bodies and institutions
- Effective!



What Institutions Are Doing

Self-archiving:

- Set-up and maintain institutional repository.
- Help faculty deposit their research papers, new & old, digitizing if necessary.
- Implement open-access policies

Open-access journals:

- Help promote open access journals launched at their institution become known externally.
- Ensure scholars at their institution know how to find open access journals and archives in their fields.
- Support open access journal ‘institutional memberships’ (e.g. BioMedCentral, PLoS)
- Engage with politicians and funding bodies to raise the issue of open access

<http://www.createchange.org/>



Open Access – Appealing to All the Major Stakeholders

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- To the funders of researcher – both as a public service and as an increased return on their investment in research
- To the authors – as it gives wider dissemination and impact
- To readers – as it gives them access to all primary literature, making the most important ‘research tool’ more powerful
- To editors and reviewers – as they feel their work is more valued
- To the libraries – as it allows them to meet the information needs of their users
- To the institutions – as it increases their presence and prestige
- To small and society publishers – as it gives them a survival strategy and fits with their central remit



A Changing Environment

“It is one of the noblest duties of a university to advance knowledge, and to diffuse it not merely among those who can attend the daily lectures--but far and wide. ”

Daniel Coit Gilman, First President, Johns Hopkins University,
1878 (on the university press)

“ 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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