



Open Access to the research literature

A peer commons open to the public

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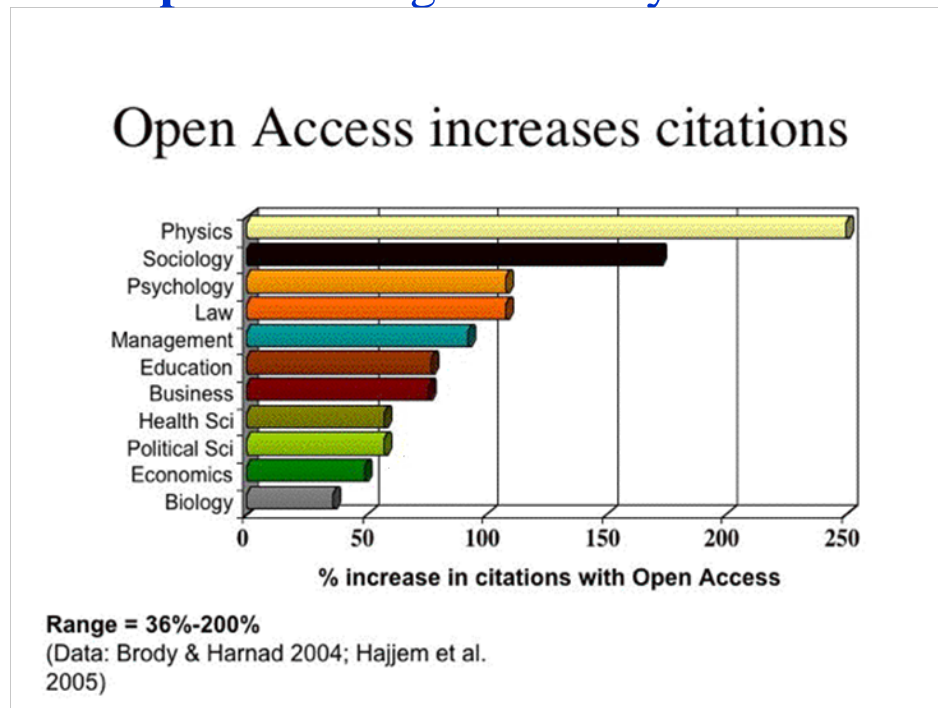


The cumulative research cycle

- **Researchers** : search and read
: formulate and test hypotheses
: publish their findings in peer-reviewed research journals
- **2.5 million articles** published per year
- In **25 000** peer reviewed **journals**
- **No university** in the world **can afford paid access** to all or most (ARL)
- **Present** and **past** articles are **inaccessible** to many of their potential users

The consequence

- **Access to research findings** is being **denied**
- **Public money** spent on research is **not getting** its full **return**
- **Research impact** is being needlessly **lost**



Publicly funded research is a peer commons



- **90%** worldwide scientific research publicly funded
- Tax payers should be informed of scientific progress
- **More important:** the scientists for whom the research was written should be able to access it

Internet maximizes public access to publicly funded research

- **1994: The first calls for Open Access**
- Harnad's «Subversive Proposal» leading:
 - to **Cogprints** Repository
 - to Eprints software for creating Institutional Repositories
 - and Open Access mandates to deposit in them
- «Halle Meeting» in Germany with Luegger, Groetschel and Hilf leading:
 - to creation of **Math-net** and **PhysNet**

Interactivity between individuals in the Internet era

- The first steps at individual levels
 - E-mails
 - Discussion lists
 - Common editing tools

Globally collaborative e-science in the Internet era

- Open Archives Initiative (**OAI**) in 1999 to support inter-operability of eprint archives
 - **Inter-operability** makes it possible to harvest and search all repositories as if they were all only one global repository

The new development of Institutional OA Archives

- OAI protocol allows **growth of institutional Repositories (IRs)** where the institutional output is deposited (more than **1100** IRs in November 2008)
- Specific **OAI tools** (open source)
 - For **setting up** repositories (e.g. e-prints.org)
 - For **harvesting** (e.g. Oaister, Google scholar)
 - For **bibliometric studies** (e.g. Citebase, Citeseer)

The Budapest Open Access Initiative

- The **BOAI** (2002) was a call for all researchers worldwide to provide OA to their publications
OA = freely accessible and usable online
- **Open Access** can be provided **via 2 means**
 - **BOAI-1** (or the ‘**Green Road**’) by creating OA institutional repositories and depositing published journal articles in them (‘self-archiving’)
 - **BOAI-2** (or ‘**Gold Road**’) : by creating and publishing in open access journals

Open Access Libre and Gratis

- A necessary further detail in 2008 :
 - “**Gratis OA**” for the removal of price barriers alone
 - “**Libre OA**” for the removal of price and at least some permission barriers
- “The new terms allow us to speak unambiguously about these two species of free online access.” -- **Peter Suber**

Gratis OA provided by self-archiving

- “Self-Archive Unto Others as Ye Would Have them Self-Archive Unto you” -- Stevan Harnad
- **63%** of journals have endorsed depositing and making the author’s peer reviewed final draft, *Open Access immediately* upon acceptance for publication
- **‘Almost OA’:**
 - Remaining **37%** can be *immediately deposited* as ‘*Closed Access*’ ----- and:
 - Institutional repositories with ‘*e-mail eprint button*’ can provide a single eprint of closed access deposits semi-automatically when requested by a researcher

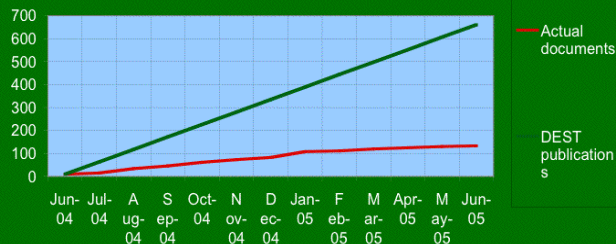
Various ways to fill up repositories

- Librarians can highlight the advantages of OA self-archiving to all involved
- Institutions are in position to **mandate** OA self-archiving :
 - Incentives for the lab (Minho University)
 - Using the repository for internal evaluation (Inserm project in France)

A mandate is necessary to accelerate OA self-archiving

- Institutions without mandates : 15% deposits
- Institutions with incentives and help : 30%
- Institutions with mandates : approach 100% within two years

University of Tasmania
+Repository -Incentive -Mandate
 Green line: total annual output
 Red line: proportion self-archived



Data courtesy of Arthur Sale

University of Queensland
+Repository +Incentive -Mandate
 Green line: total annual output
 Red line: proportion self-archived



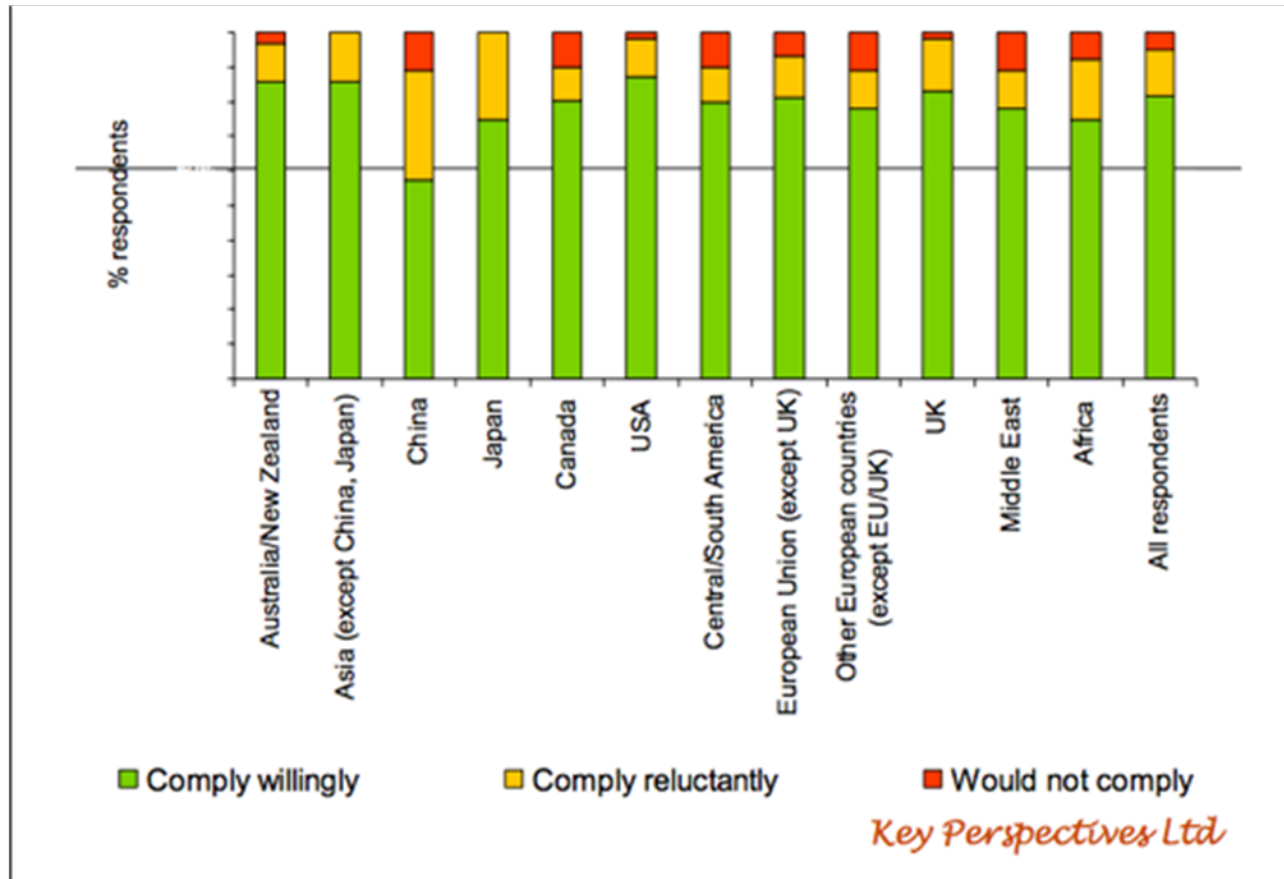
Data courtesy of Arthur Sale

Queensland University of Technology
+Repository +Incentive +Mandate
 Green line: total annual output
 Red line: proportion self-archived



Data courtesy of Arthur Sale

Alma Swan's International Survey On Mandate Compliance (2005)



List of countries with mandates

(extracted from RoarMap, 5th November 2008)

-Australia	7	-Austria	1
-Belgium	2	-Canada	4
-Europe	3	-Finland	1
-France	2	-Germany	1
-Ireland	2	-Italy	1
-India	2	-Portugal	1
-Russia	1	-Switzerland	3
-Turkey	1	-UK	19
-US	5		
	TOTAL	57	

Other proposed mandates

(extracted from RoarMap, 5th November 2008)

- Canada (1 more funder)
- China (1 multi-institutional)
- Europe (1 multi-institutional + 2 more funders)
- France (1 institution)
- India (1 funder)
- Norway (1 funder)
- Ukraine (1 multi-institutional)
- US (1 more funder)
- Brazil (1 multi-institutional)
- **TOTAL 10 proposed mandates**

SPARC-Creative Commons White Paper (2008)

- **Open Minds—Open Doors: What can faculty authors do to ensure open access to their work through their institution?**
- Solutions:
 - Every institution should mandate (require) depositing every research journal article in the institutional repository
 - And recommend adopting an automatic licence that applies to the work before the transfer of copyright to the publisher

The Brisbane Declaration

(September 2008)

- 1. **Every citizen** should have **free open access** to publicly funded research, data and knowledge.
- 2. **Every** [Australian] **university** should have access to a **digital repository** to store its **research outputs** for this purpose.
- 3. [...]
- 4. The deposit of materials should take place as soon as possible, and in the case of **published research articles** should be of the **author's final draft at the time of acceptance** [...]

The Brisbane Declaration

A concrete policy model for global adoption

Preamble

- “The participants recognise **Open Access** as a strategic enabling activity, on which **research** and inquiry will rely at **international, national, university, group and individual levels.**”

OPEN ACCESS

Academy and Industry “Commons”

- **Declaration of the National Academies Forum in Australia :**

Academy of the Social Sciences in Australia

Australian Academy of Science

Australian Academy of Tech. Sciences and Engineering

Australian Academy of the Humanities

"We endorse **open access** to research outputs to facilitate **academic, industry** and community-wide **collaboration**. The National Academies Forum will continue to act strongly as a vector to promote this access".

The ‘Cognitive Commons’

- “[...]The worldwide web, a distributed network of cognizers, digital databases and software agents, has effectively become our “**Cognitive Commons**” in which **distributed cognizers and cognitive technology** can interoperate globally with a speed, scope and degree of interactivity that generate **cognitive performance powers** that would be inconceivable within the scope of individual local cognition alone.”

-- I.E. Dror & S. Harnad (2008)

“Offloading Cognition onto Cognitive Technology”. To Appear in: Itiel E. Dror & Stevan Harnad (Eds) *Distributed Cognition*.

Conclusion

