Science is Open: An Introduction to Open Access

Helmholtz Open Access Project
[http://dx.doi.org/10.1371/journal.ppat.1001134](http://dx.doi.org/10.1371/journal.ppat.1001134).
Scientific Process: Research Cycle

- Conceptualising and networking
- Proposal writing and design
- Collecting and analysing
- Infrastructuring: tools, services and standards
- Documenting and describing
- Translating and engaging
- Publishing, reporting and peer review

Source: Open to All? Case studies of openness in research. RIN / NESTA, September 2010
Open Access: Definitions

• Open Access publications:
  – scientific information is made freely available from web repositories (internet servers for digital archiving)
  – it can be read, downloaded, copied, printed, searched, text mined...
  – without financial, legal or technical barriers

• Types of open access information:
  – peer-reviewed scholarly publications
  – other publications (Ph.D. theses, reports, conference papers, posters...)
  – research data
Open Access: Origins

• Rise of the internet:
  – unprecedented possibilities for dissemination of information
  – potential for easier and cheaper access

• Traditional scientific journals:
  – publishing has a cost
  – but a considerable price increase („journal crisis“) is ongoing
  – e. g. annual subscription rate for „Biochimica et biophysica acta“:
    € 19,130*

• Advent of open access movement leads to
  – discussion of new business models in scientific publishing
  – changes in scholarly communication

*Source: KIT Library
• Berlin Declaration to Open Access to Knowledge in the Sciences and Humanities:
  – milestone of the open access movement
  – signed on 22 October 2003 by the Helmholtz Association and other research organisations

„In accordance with the spirit of the Declaration of the Budapest Open Access Initiative, the ECHO Charter and the Bethesda Statement on Open Access Publishing, we have drafted the Berlin Declaration to promote the Internet as a functional instrument for a global scientific knowledge base and human reflection and to specify measures which research policy makers, research institutions, funding agencies, libraries, archives and museums need to consider ...”
Following the „green“ road to open access (self-archiving):

- researchers (or their libraries) deposit copies of the peer-reviewed articles they publish into a document server („repository“)
- ask your local Helmholtz library for support
- see listing of publishers’ copyright policies: SHERPA/RoMEO
- 80 % of journals allow self-archiving
- final manuscripts or layouted versions
- institutional or subject-based repositories
- open access immediately or after a grace period (i. e. publishers may recoup their investments)
## Helmholtz Centres: Repositories

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Open Access: „Golden“ Road

• Following the „golden“ road to open access:
  – researchers publish their articles in „open access“ journals
  – peer-reviewed articles are made available free of charge immediately on publication
  – articles are published under a Creative Commons licence
  – journal usually charges a publication fee
  – journals may have pure open access models or „hybrid“ models (journal operates on traditional subscription-to-read basis, authors have option to pay a fee for immediate open access to their published article, but: double payment by library subscription?)
Scientific Journals: Cost Models

„Traditional“ closed access journal:

Submission → Peer Review → Acceptance → Publication → Subscriber

Open access journal:

Submission → Peer Review → Acceptance → Publication → Web Repository

Publication Charge

Subscription Charge
Example: New Journal of Physics

- pure open access journal publishing peer-reviewed research across the whole of physics
- financed by article publication charges
- founded in 1998

http://www.njp.org/
Open Access Journals: Growth in Numbers

Source: Directory of Open Access Journals (DOAJ)
Open Access: Benefits

• wide dissemination of research results
• increased scientific discussion
• raised public perception of science
• better return on investment by public research funding
Open Access: Where to Search for Papers

- subject-based repositories
- BASE: http://www.base-search.net/
- Google Scholar: http://scholar.google.com
### Helmholtz Centres: Open Access Contacts

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<td>UFZ</td>
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[all](http://oa.helmholtz.de/index.php?id=219)
Open Access: Further Reading

- Berlin Declaration to Open Access
  http://oa.mpg.de/lang/en-uk/berlin-prozess/berliner-erklarung/

- Listing of publishers’ copyright policies
  http://www.sherpa.ac.uk/romeo/

- Creative Commons attribution license
  http://creativecommons.org/licenses/by/3.0/

- Directory of Open Access Journals (DOAJ)
  http://www.doaj.org/

- Open Access: Positionen, Prozesse, Perspektiven (in German)
  http://www.allianzinitiative.de/fileadmin/openaccess.pdf

- Getting your feet wet: an introduction to open access
  http://www.rin.ac.uk/system/files/attachments/open_access_booklet_screen_0.pdf

- Information platform open-access.net
  http://open-access.net/de_en/
Thank you for listening!

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