Open Access Opportunities in the Geosciences: "Green OA"

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Abstract

Changes in publishing and scholarly communication have been impacting the distribution of scientific knowledge for years (Chan et al., 2002). The economics of publishing continues to have an effect on subscribers' ability to maintain access and therefore the readership of established publications may decrease or seek legitimate alternatives to gain access.

Green OA provides an opportunity to balance a scholar's need to publish in respected journals with the importance of widespread distribution of research. Authors, publishers, and repository managers can work together to ensure widespread access to high quality research. The author will describe "Green OA" vs. "Gold OA", highlight publishers' policies regarding Green OA (with an emphasis on Geoscience journals), and include opportunities available to authors through institutional and subject repositories.

What is Green OA?

Green OA

- **Allows authors to make their work freely available online through an archive or repository (Suber, 2007), also called "self-archiving".**
- Is different than publishing in an Open Access journal ("Gold OA"). Instead, authors make use of the rights granted to them by the journal publisher.
- Requires that authors take a close look at the rights they transfer to the publisher when signing the copyright transfer agreement.

Green OA Benefits

- *Any* research publication has the potential to become Open Access.
- Access to your research is not limited to subscribers of expensive journals.
- Scholarly works can be found more easily, by anyone:
  - If your organization's students or stakeholders are using Google™, Google Scholar™, and other internet search engines, they can access Green OA materials.

Gold OA

- Scholarly journals are made freely available online
- Publication models vary, but the publications are not free to produce
- Quality is demonstrated by the same criteria that make traditional journals respectable (quality of articles, peer review, editorial board, etc.)

High Impact and Open Access: Authors can have both

Common publishers, selected titles, and Impact Factor (JCR, 2009):

Elsevier

- *Earth-Science Reviews* (6.558)
- *Geochimica et Cosmochimica Acta* (4.235)
- *Earth and Planetary Science Letters* (3.955)
- *Precambrian Research* (3.736)

Springer

- *Contributions to Mineralogy and Petrology* (3.853)
- *Biogeochemistry* (2.961)
- *Bulletin of Volcanology* (2.735)
- *Surveys in Geophysics* (2.733)

American Geophysical Union

- *Reviews of Geophysics* (7.114)
- *Global Biogeochemical Cycles* (4.09)
- *Paleoceanography* (3.626)
- *Journal of Geophysical Research* (3.147)

The publishers shown above typically* allow authors to place postprints and preprints online, making them ***Green*** publishers (SHERPA/RoMEO, 2009).

The publishers shown below typically* are more restrictive about the rights authors retain BUT authors can ask to amend the copyright transfer agreement.

Wiley/Wiley-Blackwell

- *Global Ecology and Biogeography* (5.304)
- *Journal of Biogeography* (4.566)
- *Geobiology* (3.596)
- *Journal of Metamorphic Geology* (3.34)

Geological Society of America

- *Geology* (3.887)
- *Geological Society of America Bulletin* (3.032)

*Authors should always check the copyright agreement they sign. Copyright transfer agreements vary greatly between publishers and sometimes between journals produced by the same publisher.

Repositories

Many repositories use the Open Archives Initiative (OAI) protocol (Suber, 2007) which allows search engines such as Google™ to find the contents contained within.

Looking for a repository near you? The opportunities abound—a few examples follow.

Subject based:

- ArXiv.org: possibly one of the best success stories in subject repositories. ArXiv covers specific scientific disciplines including geophysics, ocean and atmospheric physics.

Institutional Repositories**:

- Deep Blue– University of Michigan
- Digital Repository—Texas A&M University
- DigitalCommons– University of Nebraska Lincoln
- DSpace—MIT
- Knowledge Bank—Ohio State University
- Minds@UW — University of Wisconsin
- ScholarsArchive—Oregon State University
- ScholarsBank — University of Oregon
- SmartTech-Georgia Tech

Ask your librarian to find out if your institution has a repository.

References:

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Journal Citation Reports® (JCR) 2008 Science Edition. 2009, Thomson Reuters.

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Suber P. 2007, Open Access Overview, *The SPARC Open Access Newsletter,* Retrieved October 2nd, 2009 from http://www.earlham.edu/~peters/fos/overview.htm.