Open Access to Manuscripts and Big Data

Progress, and the Elsevier Perspective in 2013

Presented by: Dan Morgan
Title: Senior Manager, Universal Access
Date: June 27th, 2013, Stanford University
Company Blog – Elsevier Connect

http://elsevierconnect.com/

STEM Family-Friendly Writing Retreat aims to boost productivity

Retreat, funded by a New Scholars grant, serves as a model for helping faculty achieve work-life balance

By Tish Womch-Hill, PhD

To address inequalities in work-family balance among STEM professors and to retain women in science fields, the University of Nebraska-Lincoln held a STEM Family Friendly Writing Retreat. Faculty members participated from throughout the US and Canada. The event was funded by a grant from the Elsevier Foundation’s New Scholars program. Writing Retreats provide dedicated time and space for the writing that is critical to success in higher education. Dedicated writing time is crucial to productivity and achieving tenure, but finding time to write

Q&A: Susan King on CHORUS proposal for public access to research

By Alison Bell, Editor-in-Chief | Posted on 20 June 2013

Publishers have proposed a system to meet White House OSTP requirements that articles reporting on federally funded research be made freely available

2 Comments | Read More

Health and Medicine

Treatment found to prevent epilepsy in mice gives hope for drug development

By Mary Beth Clary | Posted on 20 June 2013

Targeting a particular signaling pathway in mice can prevent the development of temporal lobe epilepsy with just two weeks of treatment, scientists report in Neuron

2 Comments | Read More
Sustainable access

Open access publishing

Access to quality research is vital to the scientific community and beyond. We support sustainable access and work hard to provide a range of open access options alongside our access initiatives to ensure everyone can read, use and trust the latest research.

We are committed to working in partnership with the research community, librarians, funders and other stakeholders. Our Elsevier team are continually on the road meeting the community, participating in discussions and establishing partnerships which will help support increase access to research. Read more about our institutional and funding body agreements.

Below is an overview of our open access publishing options:

- **Open Access Journals**
  Discover our range of open access journals.

- **Open Access Articles**
  Publish open access in over 1500 of our high quality hybrid journals.

- **Green Open Access**
  Elsevier’s approach to self archiving.

- **Open Archive**
  Free access to archived research in a number of Elsevier and Cell Press Journals.
Current landscape

Number of articles by payment mechanism and year

- OA (Gold) articles made up 7% of STM total in 2012
- 2013: ~10% articles expected
- The level of uptake varies by field – highest in Life and Health Sciences
OA Journals across all subjects

Elsevier publishes 40+ Open Access Journals

http://www.elsevier.com/about/open-access/open-access-journals
OA articles in hybrid journals

Elsevier offers this choice in 1600+ established, peer reviewed journals

http://www.elsevier.com/about/open-access/sponsored-articles
No Double Dipping

- Elsevier accounts for each and every open access article
- Our subscription customers are not charged for open access articles – we do not “double dip”
- When calculating subscription prices, Elsevier only takes into account content published under the subscription model

www.elsevier.com/about/open-access/open-access-policies
OSTP memo

Why Elsevier supports it

- It is Open to Gold
- It seeks to leverage existing investments rather than duplicate efforts
- It specifically encourages collaboration

http://elsevierconnect.com/white-house-ostp-memo-plots-course-for-open-access/
OA articles and journals

- Authors retain copyright © The Authors
- Grant exclusive license to publish
- Choose user license:
  - CC-BY (Attribution)
  - CC-BY-NC-SA (Non-Commercial, Share Alike)
  - CC-BY-NC-ND (Non-Commercial, No Derivatives)

www.elsevier.com/about/open-access/open-access-policies/oa-license-policy
Non-Commercial?

Text/data mining = / ≠ Selling reprints?

See discussion at:

http://www.stm-assoc.org/open-access-licensing/
APCs

- Full range $500 - $5000
- Most in standard range $1200 - $2500
- Differences by type, funding situation, etc.
## Green Open Access

### SHERPA/RoMEO

**Search - Publisher copyright policies & self-archiving**

One publisher found when searched for: Publisher Elsevier

<table>
<thead>
<tr>
<th>Publisher: Elsevier, United States</th>
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<tbody>
<tr>
<td>Journals: [-1882 journals] (including journals with special policies) - involving 832 other organisations</td>
</tr>
<tr>
<td>RoMEO: This is a RoMEO green publisher</td>
</tr>
<tr>
<td>Copyright: Copyright Policy - Article Posting Policies - Rights &amp; responsibilities - Funding Body Agreements - Green Open Access - Open Access License Policy, Green Open Access - Elsevier Journal Specific Embargo Periods 2013 (pdf)</td>
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<tr>
<td>Updated: 17-Apr-2013</td>
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These are the publisher's default policies. Individual journals may have special permissions, especially if they involve other organisations or have paid open access options. Always run a journal title or ISSN search to check.

- **Author's Pre-print:** ✓ author can archive pre-print (ie pre-refereeing)
- **Author's Post-print:** ✓ author can archive post-print (ie final draft post-refereeing)
- **Publisher's Version/PDF:** ✗ author cannot archive publisher's version/PDF

**General Conditions:**

- Voluntary deposit by author of pre-print allowed on institutions open scholarly website and pre-print servers, without embargo, where there is not a policy or mandate
- Voluntary deposit by author of authors post-print allowed on institutions open scholarly website including Institutional Repository, without embargo, where there is not a policy or mandate
- Deposit due to Funding Body, Institutional and Governmental policy or mandate only allowed where separate agreement between repository and the publisher exists.
- Deposit due to Funding Body, Institutional and Governmental policy or mandate, may be required to comply with embargo periods of 12 to 48 months.
- Set statement to accompany deposit
- Published source must be acknowledged
- Must link to journal home page or articles DOI
- Publisher's version/PDF cannot be used
- Articles in some journals can be made Open Access on payment of additional charge
- NIH Authors articles will be submitted to PubMed Central after 12 months
- Authors who are required to deposit in subject-based repositories may also use Sponsorship Option

**Mandated OA:** Compliance data is available for [RT funders](http://www.sherpa.ac.uk/romeo/)
Public Access/Embargoes

- Public access extremely important (and additional mechanisms exist)

- Viability of journals which serve a scientific community
Data: already engaged


- http://elsevierconnect.com/should-research-data-be-publicly-available/
General instruction

“Elsevier encourages authors to deposit raw experimental data at relevant data repositories. Instructions for authors depend on the data repository: in some cases data is extracted from the article by curators, while in other cases authors need to upload their data manually.”
Database linking

- Referencing data in articles through tagging identifiers or accession numbers: identify these entities by: *database abbreviation: data identifier*

- **Data DOI**: Elsevier supports Data DOI as persistent identifiers for scientific data. If Data DOI are included in an article, it will automatically turn into a link to your data on ScienceDirect.

- **Linked data repository banners on ScienceDirect**: Elsevier collaborates with selected data repositories to show banner links next to relevant articles on ScienceDirect.

[www.elsevier.com/database-linking](http://www.elsevier.com/database-linking)
Database linking: visualization

Data visualization and integration applications

- Close collaboration with selected data repositories
  - the Protein Viewer (with PDB),
  - the PANGAEA data visualization tool
  - the Genome Viewer (with NCBI).
- Visualize data and integrate it into the online reading experience
E.g. Genome Viewer

The Genome Viewer provides functionality for viewing and analyzing sequence data of genes mentioned in articles in ScienceDirect.

- Scans the article
- Builds a list of available sequences based on NCBI accession numbers tagged in this article
- List appears in a dropdown menu within the Genome Viewer
- User can select the accession number from the dropdown and the Genome Viewer will be refreshed with the annotated sequence map for that selection
E.g. PANGAEA

PANGAEA Related Data provides geo-referenced, citable datasets from earth and life sciences, archived as supplementary data from publications

- Display a Google map indicating the geographical coverage of each dataset.
- Clicking on the dataset indicator reveals information about the dataset, along with a link to PANGAEA where you can view the full information about the dataset and download it.
- PANGAEA is operated as an Open Access library aimed at archiving, publishing and distributing geo-referenced data from earth and life sciences.
- Each dataset can be identified, shared, published and cited by using a Digital Object Identifier (DOI). Data are archived as supplements to publications or as citable data collections.
See full list, recommend more

www.elsevier.com/database-linking
Research Data Services

- [http://researchdata.elsevier.com/](http://researchdata.elsevier.com/)

Save time and more easily document and credit your research data using our expertise.

Research Data Services is a new group, exploring how Elsevier can help researchers share and annotate data. We are focused on getting data into discipline-specific repositories, bringing our core competencies in nomenclatures, informatics, repeatability and best practices in process, process management, impact assessment and analytics to overcome the barriers of research data sharing and curation.

<table>
<thead>
<tr>
<th>Principles</th>
<th>Goals</th>
<th>Challenges</th>
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<tbody>
<tr>
<td><em>Data must be open</em> — openly available, supporting open science.</td>
<td><em>Help increase archiving and sharing of research data.</em></td>
<td><em>Geosciences International Data Rescue Award 2013</em></td>
</tr>
<tr>
<td>Anything we do must be done with and through the research community and funding agencies.</td>
<td><em>Help increase the discoverability and value of shared data with annotation, context, provenance.</em></td>
<td><em>Research Data Services</em></td>
</tr>
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Open data principles

- **Open data** – all data must be open and available. Elsevier is not seeking and does not want copyright or ownership of research data.

- **Collaboration** - the model must be derived in collaboration with the research community and funding agencies, not driven by any publisher.

- **Transparency** – if money is made, then some must fund the repositories themselves, as this is all for nothing if they are not sustainable, or run out of funding.
  - Selling High end analytics services?
  - Charging for industry/non-academic use?
Data Disclosure Pilots

“RDS will work with research and data communities and research institutions to pilot full data disclosure services: “data wrangling” and data management from research lab to discipline-specific repositories, back with credit and impact assessment.”
Help Research Labs by...

- Enhancing discoverability of research data attributable to the university and the research team
- Surfacing credit/impact for the university, the research team, and the funding bodies
- Getting acknowledgement by the funding bodies of the disclosure/sharing of the data
Help institutions with...

- Increased rigor of data management
  - Consistency
  - Best practices
  - Research data overview is available from metadata in research management information systems

- Step toward completeness of research data management

- Compliance to funding body requirements, stronger base for funding requests

- Increased visibility, discoverability, credit
Help funding agencies with...

- Increased data disclosure and sharing
- Increased discoverability of data (with funding body credit)
- Increased opportunity for analytics-derived science
- Credit/impact for funded research
- Standardization and best practices in data management plans and actual data curation/preservation
Contact:

- Anita de Waard
- VP Research Data Collaborations
- researchdata@elsevier.com
- http://researchdata.elsevier.com/
Innovation in Publishing

New article format aims to prevent ‘sloppiness’ in science

With Cortex journal’s Registered Reports — featured in The Guardian — papers are reviewed before data collection to avoid publication bias

By Chris Chambers, PhD, and Sergio Della Sala, PhD | Posted on 13 June 2013

The Authors

Professor Sergio Della Sala of the University of Edinburgh is Editor-in-Chief of Cortex, an international journal devoted to the study of cognition and of the relationship between the nervous system and mental processes.

Dr. Chris Chambers (chrisdc77) is Associate Editor of Cortex and a research fellow in the School of Psychology at Cardiff University in the UK.

Here, the editors write about their Registered Reports program, which seeks to eliminate publication bias. The initiative was featured in a June 5 open letter to The Guardian: “Trust in science would be improved by study pre-registration,” signed by Dr. Chambers, Dr. Marcus Munafò and more than 80 others.

A version of this article also appeared in Editors’ Update.
Cortex (2)

- Experimental methods and proposed analyses are pre-registered and reviewed before data are collected
- Agreed publication of their future results providing that authors adhere precisely to registered protocol
- Experimental data submitted with Registered Reports made publicly available
“Open data for this article”

- Application that will surface for download any supplementary data for Registered Reports (if the article is not OA)
Genomics Data is an open access journal that considers articles on all aspects of genome-scale analysis:

1. Limited only to nucleic acids analysis
2. Microarray and Next-Gen Sequencing data
3. All organisms

Genomics Data is an Open Access Journal

Call for Papers
Discount offered for articles submitted before September 30th, 2013

Follow us
Genomics Data (2)

- High quality and standardized reports summarizing results of microarray or sequencing studies
- Genomic and functional genomic data/results are intended to serve as points of record that are enriched with data generation strategies and methods, data QC metrics, data analysis process and algorithms, biological interpretation and conclusions.
- All articles will be peer-reviewed and verified by the editorial team.
- Illumina’s BaseSpace app opens the data stored in the cloud to the publishing environment for review and extra dissemination.
- Reviewers are in the position to reproduce the analysis.
Results require:

- raw data, to be submitted to GenBank, NCBI/NIH (SRA, GEO), and submission numbers should be cited in the manuscript;
- data: figures, tables, etc.
- data format, e.g. XML,
- data description and interpretation;
Executable Paper

http://www.youtube.com/watch?feature=player_embedded&v=FQ5FaeHcdwo
THANK YOU

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Questions, and panel discussion later