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Supporting Open Initiatives
What is Open?

- Open Science = equal?
- Open Access = a service?
- Open Education = no barriers.

“In 5, 10, 15 years, I don’t want to be talking to people about open science: I want this to just be science.”

-Jon Tennant
Sharing is caring but publishing is professional.
Is closed bad?

Figure 1. Distribution of reporting errors per paper for papers from which data were shared and from which no data were shared.

http://journals.plos.org/plosone/article?id=info:doi/10.1371/journal.pone.0026828
The Reinhart-Rogoff error – or how not to Excel at economics

Data and computer code should be made publicly available at an early stage – or else … esarastudillo

Last week we learned a famous 2010 academic paper, relied on by political big-hitters to bolster arguments for austerity cuts, contained significant errors; and that those errors came down to misuse of an Excel spreadsheet.

thecconversation.com
Quantifying data loss

Vines TH et al. (2013) Current Biology DOI:10.1016/j.cub.2013.11.014
### Majority of researchers and authors practice open science

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would be willing to share data across a broad group of researchers who use data in different ways</td>
<td>78.2%</td>
</tr>
<tr>
<td>It is important that my data are cited when used by other researchers.</td>
<td>88.9%</td>
</tr>
<tr>
<td>It is appropriate to create new datasets from shared data</td>
<td>73.7%</td>
</tr>
</tbody>
</table>

Joint Data Archiving Policy for journals

Data are important products of the scientific enterprise, and they should be preserved and usable for decades in the future.

As a condition for publication, data supporting the results in the article should be deposited in an appropriate public archive.

Authors may elect to embargo access to the data for a period up to a year after publication.

Exceptions may be granted at the discretion of the editor, especially for sensitive information.

http://datadryad.org/pages/jdap
Dryad news and views

Dryad updates and goings on

Why does Dryad use CC0?
2011/10/05 by Peggy Schaeffer | Edit

Early in the process of depositing data to the Dryad repository, authors are asked to consent to the explicit release of their data into the public domain under the terms of a Creative Commons Zero (CC0) waiver. We are frequently asked why Dryad uses CC0 rather than a license such as CC-BY, and it is important for all users to understand the rationale for this, as well as its implications.

Creative Commons Zero

Dryad news and views

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Creative Commons Zero
How do we ensure researchers get credit?

1. Importance
2. Credit and Attribution
3. Evidence
4. Unique Identification
5. Access
6. Persistence
7. Specificity and Verifiability
8. Interoperability and Flexibility

There are challenges...

• Reproducibility of open data and open science is a goal but it is difficult
  – Recent PLOS paper says that only a small amount ~40% of data is usable and reproducible
• Data policies require policing and effort
• Resources are required
• Culture shifts are hard and can take time
Nine simple ways to make it easier to (re)use your data

1. Let your data be preserved and discovered at all - that’s half the battle!
2. Provide metadata
3. Provide an unprocessed form of the data
4. Use standard data formats
5. Use good null values (are not sampled, not applicable, not observed)
6. Include information that links your data to others
7. Perform basic quality control
8. Use an established repository (links rot from lab webpages)
9. Use the most open license possible. You *want* people to reuse the data - you don’t get any credit for it if they don’t.

What else can you do to be a part of it?

• Advocate in your lab and/or department
• Publish things openly
• Cite data
• Pay attention as a reviewer where the data is
• Become more informed about copyright issues and other broader topics
To learn more

• Dryad Digital Repository: http://datadryad.org
• Dryad News & Views blog: http://blog.datadryad.org
• Twitter: @datadryad
• Feedback (Ideas Forum): http://datadryad.org/feedback
Read more about Open Science and Open Data

- [http://rossmounce.co.uk/](http://rossmounce.co.uk/)
- F. Fang and A Casadevall, Retracted Science and the Retracted Index [http://iai.asm.org/content/79/10/3855.full](http://iai.asm.org/content/79/10/3855.full)
- the Winnower [https://thewinnower.com/posts/the-winnerrers](https://thewinnower.com/posts/the-winnerrers)
Open peer review process

Results of the third annual PeerJ author survey

BY JASON HOYT - NOVEMBER 5, 2015

- 99.2% would recommend PeerJ to colleagues
- 85% had a fast editorial process
- 83% report very helpful peer-review
- 51% response rate
- 22 days median publication time