

Harmonising research data policy in scholarly publishing

Belmont Forum, London, June 2017

Iain Hrynaszkiewicz

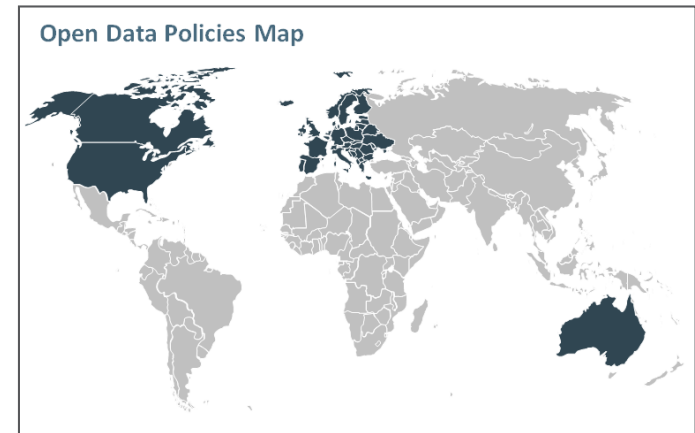
SPRINGER NATURE



Supporting compliance: Research funders and data access

- More than 40 research funders globally have policies or mandates that require data archiving as a condition of grants⁽¹⁾
e.g.

- National Science Foundation (NSF)
- Wellcome Trust
- Bill and Melinda Gates Foundation
- EU H2020 pilot
- Research Councils UK (as part of open access policy)



- **Some of these require data to be linked to publications including:**
 - Engineering and Physical Sciences Research Council (EPSRC)

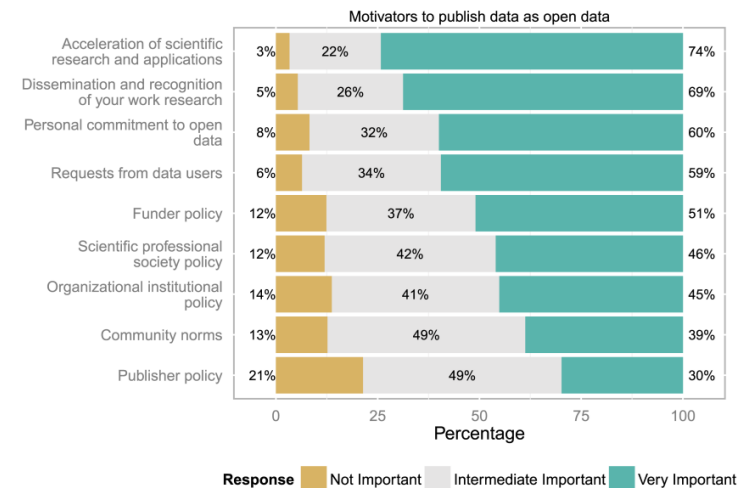
(1) Hahnel, M: Global funders who require data archiving as a condition of grants. *figshare*.
<https://dx.doi.org/10.6084/m9.figshare.1281141.v1> (2015)

Policy as an incentive and barrier to data sharing

- Funder policy motivates researchers to share data (88%¹)

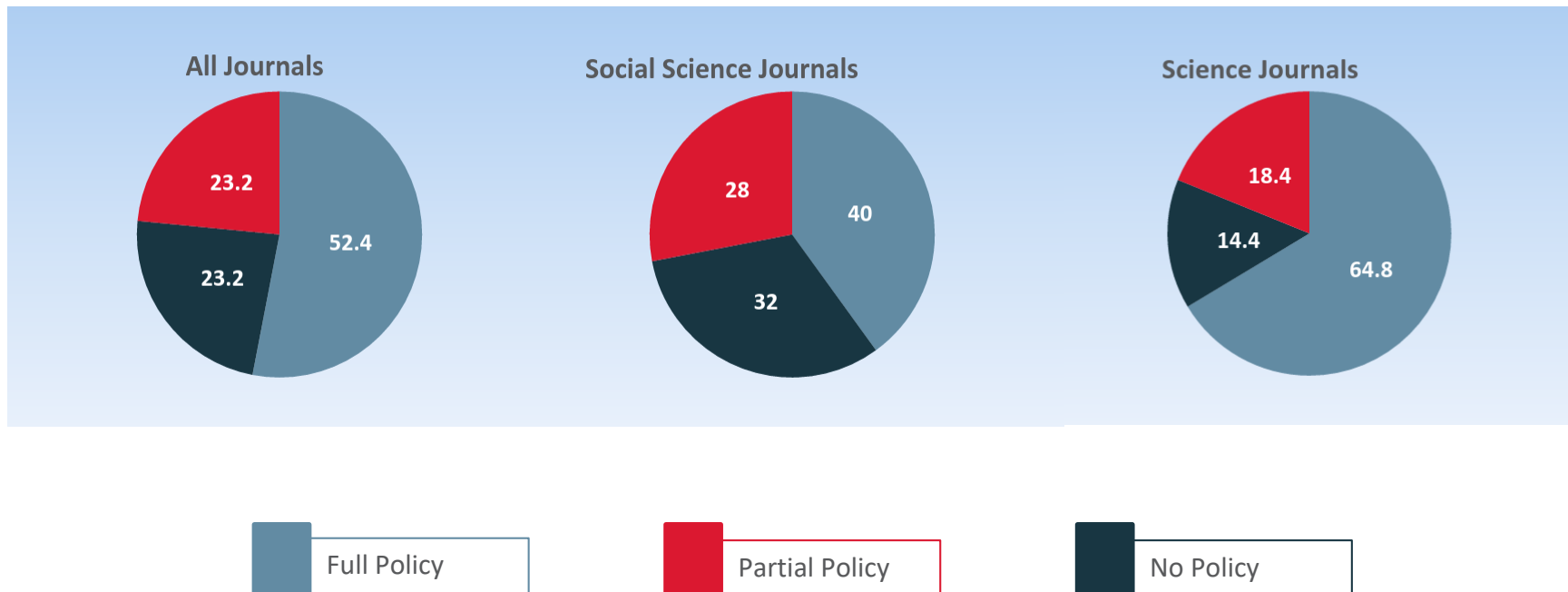
But

- Complying with funder policies is a challenge for more than half of researchers (54%²)



1. Schmidt et al. (2016). PLoS ONE 11(1): e0146695. doi:10.1371/journal.pone.0146695 (n=1248) (& image credit, CC BY)
2. Treadway et al. (2016). figshare. <https://dx.doi.org/10.6084/m9.figshare.4036398.v1> (n= 2061)

Journals' research data policies are confusing



Data source: Linda Naughton, JISC Journal Research Data Policy Bank project presentation (n = 250)

“The evidence shows that the current research data policy ecosystem is in critical need of standardization and harmonization”

-- Naughton, L. & Kernohan, D., (2016). Making sense of journal research data policies. Insights. 29(1), pp.84–89. DOI: <http://doi.org/10.1629/uksg.284>

Policy Types

Type 1

Data sharing and data citation is encouraged but not required

Type 2

Data sharing and evidence of data sharing encouraged

Type 3

Data sharing encouraged and statements of data availability required

Type 4

Data sharing, evidence of data sharing and peer review of data required

Process

1. Identify and agree the most relevant policy type for individual journal

2. Implement standardised text and processes into relevant journal guides and publishing workflows

3. Provide a consistent and easy-to-follow journal data policy for authors, researchers and peer reviewers

Standardising and harmonising research data policy in scholarly publishing

Iain Hrynaszkiewicz, Aliaksandr Birukou, Mathias Astell, Sowmya Swaminathan, Amye

Kenall, Varsha Khodiyar

bioRxiv 122929; doi: <https://doi.org/10.1101/122929>

Policy Types



Process

1. Identify and agree the most relevant policy type

2. Implement standardised text and processes into

3. Provide a consistent and easy-to-follow journal

All policy types:

- Preference **sharing of data via repositories** (rather than ESM/SI)
- **Allow citation of public datasets** in reference lists/bibliographies
- **Encourage use of publisher helpdesk** to ensure compliance with funder mandates

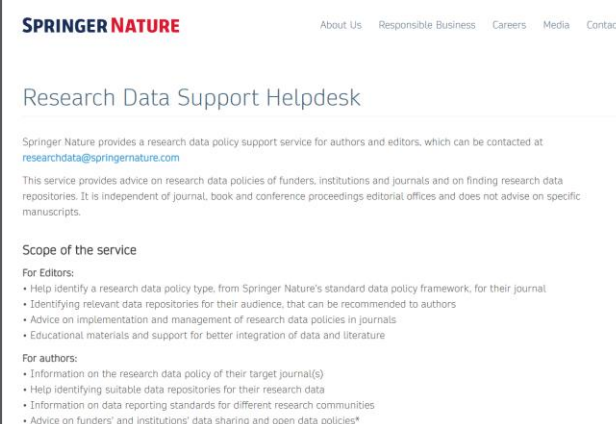
Research Data Support helpdesk @Springer Nature

Support for editors:

- Identifying and implementing a data policy
- Identifying data repositories for their audience(s)
- Dealing with peer review of sensitive/human data
- Good practice for data-literature integration

Support for authors:

- Information on the data policy of their target journal(s)
- Identifying and using data repositories
- Compliance with funders' and institutions' data sharing policies
- Data reporting standards



The screenshot shows the Springer Nature Research Data Support Helpdesk page. At the top, the Springer Nature logo is on the left, and navigation links for 'About Us', 'Responsible Business', 'Careers', 'Media', and 'Contact' are on the right. The main heading is 'Research Data Support Helpdesk'. Below this, a paragraph states: 'Springer Nature provides a research data policy support service for authors and editors, which can be contacted at researchdata@springernature.com'. A second paragraph explains: 'This service provides advice on research data policies of funders, institutions and journals and on finding research data repositories. It is independent of journal, book and conference proceedings editorial offices and does not advise on specific manuscripts.' The 'Scope of the service' section is divided into two parts: 'For Editors:' and 'For authors:'. The 'For Editors:' section lists: '• Help identify a research data policy type, from Springer Nature's standard data policy framework, for their journal', '• Identifying relevant data repositories for their audience, that can be recommended to authors', '• Advice on implementation and management of research data policies in journals', and '• Educational materials and support for better integration of data and literature'. The 'For authors:' section lists: '• Information on the research data policy of their target journal(s)', '• Help identifying suitable data repositories for their research data', '• Information on data reporting standards for different research communities', and '• Advice on funders' and institutions' data sharing and open data policies*'. The asterisk likely refers to the 'Responsible Business' link in the top navigation.

Other resources for authors and editors include

- Recommended repositories list

<http://www.springernature.com/gp/group/data-policy/repositories>

- Guidance on and published examples of data availability statements

<http://www.springernature.com/gp/group/data-policy/data-availability-statements>

Statement type/description	Template/example text	Published example
Data generated during the study are subject to a data sharing mandate and available in a public repository that does not issue datasets with DOIs	[Data type e.g. "Sequence"] data that support the findings of this study have been deposited in [repository name e.g. "GenBank"] with the [primary] accession codes [list accession codes with links e.g. "KP253039 ↗ "]	BMC Biology ↗ Nature Communications ↗
Data available in a public (institutional,	The [data type] data that support the findings of this study are available in	Nature Communications ↗

Policy implementation progress – 19th June 2017

- **More than 1,000** (~45%) Springer Nature journals have adopted a standard policy
- Includes all Nature and BioMed Central journals; Springer Research Group journals being added weekly
- Policies and recommended repository list released under CC BY (open access) to enable wider policy adoption and development
- Research Data Alliance Interest Group formed to explore policy standardisation across other publishers and stakeholders (co-chaired by Wiley)

<https://www.rd-alliance.org/groups/data-policy-standardisation-and-implementation>



The screenshot shows the top navigation bar of the Nature journal website. The main header is dark red with the 'nature' logo in white. Below the logo is the tagline 'International weekly journal of science'. The navigation menu includes links for Home, News & Comment, Research, Careers & Jobs, Current Issue, and Archive. A secondary navigation bar shows the current page path: Archive > Volume 537 > Issue 7619 > Editorial > Article. The main content area displays the title 'Announcement: Where are the data?' and the date '07 September 2016'.

nature International weekly journal of science

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive

Archive > Volume 537 > Issue 7619 > Editorial > Article

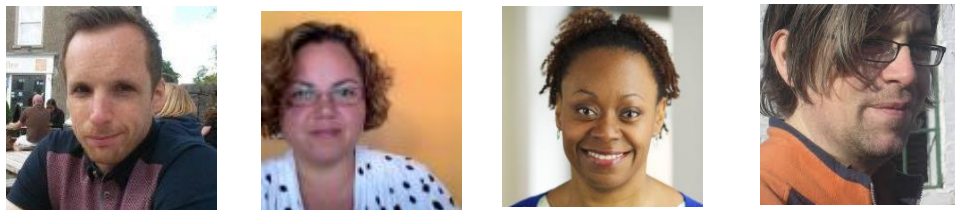
NATURE | EDITORIAL

Announcement: Where are the data?

07 September 2016

Community and stakeholder engagement via RDA

Co-chairs:



Natasha Simons (ANDS), Simone Taylor (Wiley), David Kernohan (Jisc), Iain Hrynaskiewicz (Springer Nature)

Proposed group activities can build on and be informed by research carried by Jisc, ongoing activities of ANDS and work of Springer Nature on data policy

The screenshot shows the RDA website interface. At the top, there is a navigation menu with links: ABOUT RDA, GET INVOLVED, GROUPS, RECOMMENDATIONS & OUTPUTS, and RDA FOR D. The RDA logo (Research Data Alliance) is on the left. The main heading is 'Data policy standardisation and implementation', with a breadcrumb trail: Home » Working And Interest Groups ». Below the heading, there is a section for 'IG' (Interest Group) details. The status is 'Under community review' and the Secretariat Liaison is Lynn Yarmey. There is a link for 'History'. The section is titled 'Background and motivations' and contains text about the increasing availability of research data for reuse, the complexity of the research data policy landscape, and the need for practical data policies that support publication of research.

<https://www.rd-alliance.org/groups/data-policy-standardisation-and-implementation>

(Proposed) Group objectives summary

- Define a common framework for research data policy, focusing on journals and publishers (first), then funders and other stakeholders
 - ***Decision after RDAP9, Barcelona to focus on journal/publisher policy first and seek leaders for a future funder policy work-stream***
- Produce guidance on complying with and implementing research data policy for different stakeholders
- Facilitate greater understanding between stakeholders
- Increase adoption of research data policies in particular by journals and publishers
- Highlight examples of good/best practice
- Understanding the needs of researchers and research support staff

*Community calls planned for July 2017 to gather requirements for policies to feed into **RDAP10 meeting in Montreal in September***

Lessons learned (so far)

- Start with a simple and achievable position
- Make the process easy for editors
- Consult with other stakeholders (e.g. librarians, funders)
- Don't try and solve everything at once
- Acknowledge community and operational differences – one size doesn't fit all
- Identify examples relevant to all research disciplines
- Work with early adopters/pilot titles
- Accommodate different platforms/websites
- Be prepared to get your hands dirty – journal-by-journal
- (Any kind of) Data policy can help a journal begin its data sharing journey
- **Tools, services & resources needed for stronger policies**

Questions?

Please contact:

iain.hrynaszkiewicz@nature.com