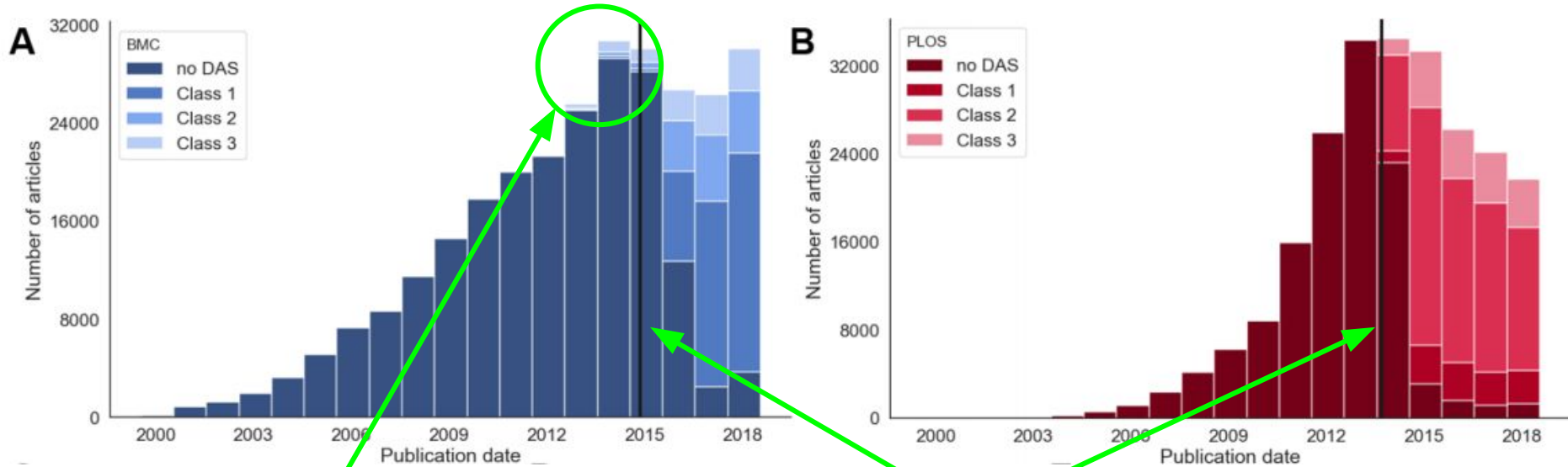# A Journal Research Data Policy Framework

AGU webinar, 2 July 2021
Iain Hrynaszkiewicz, Director, Open Research Solutions, PLOS
on behalf of the RDA Data Policy Standardisation and Implementation IG co-chairs

Researchers *say* policies incentivise data sharing

Which circumstances would motivate you to share your data?	2019 RANK	2019	Count	2018 RANK	2018	Count
Increased impact and visibility of my research	1	62%	3,659	1	62%	841
Public benefit	2	60%	3,522	2	59%	802
Getting proper credit for sharing data	3	54%	3,172	4	46%	621
Journal/publisher requirement	4	51%	3,009	5	44%	599
Transparency and re-use	5	48%	2,817	3	48%	652
Funder requirement	6	47%	2,767	9	33%	453
Institution/organization requirement	7	44%	2,592	7	38%	522
Trust the person requesting my data	8	43%	2,510	6	41%	561
It was made easy and simple to do so	9	36%	2,102	8	36%	485
Freedom of information request	10	30%	1,789	10	26%	352
It was a field/industry expectation	11	22%	1,272	n/a	n/a	n/a
Other (please specify)	12	3%	191	11	5%	63
I would never share my data	13	2%	94	12	1%	17
TOTAL		100%	5,886		100%	1,359

Policies *do* incentivise data sharing by researchers

Data availability statements (DAS) optional at BMC (~5% compliance)

Data availability statements mandatory at PLOS & BMC

1. Colavizza et al. PLoS ONE 15(4): e0230416. https://doi.org/10.1371/journal.pone.0230416

Huge growth in journal research data policies

- Policy Initiatives from many publishers (Springer Nature, Elsevier, Wiley, T&F, BMJ etc) since 2016 and other groups e.g. Transparency and Openness Promotion (TOP) guidelines
- >13,000 STM journals with research data policies by 2020*
- Multiple similar but non-identical policies and terminologies
- Different levels of support and resources available for implementation
- Potential for confusion of researchers and support staff with so many different policy requirements**

*https://dashboard.stm-assoc.org/

**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

Research Data Alliance (RDA) helps engage different stakeholders on shared problems

Iain Hrynaszkiewicz (PLOS), Natasha Simons (ARDC), Simon Goudie (Wiley), Azhar Hussain (Jisc), Rebecca Grant (Springer Nature)

Formed in 2017, Group activities build on research carried by Jisc, ongoing activities of Australian Research Data Commons and work of journal publishers on data policy

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

Methodology: open development of framework

- 2017: Community calls to gather requirements from different stakeholders (researchers, publishers, funders, librarians, societies)
- 2018: First public draft (v1.2) made available for comment
- More than 30 comments received from more than 20 reviewers
- 2018: Discussion and review at RDA Plenary meetings
- Late 2018 - early 2019:
  - Revision of framework
  - Exploration of different presentation formats for tables
  - Draft Implementation requirements
  - Creation of policy templates
- Jun 2019: Publication of preprint on figshare
- Feb 2020: Published after peer review, *CODATA Data Science Journal*

Results: 14 policy features, 6 policy types (tiers)

	Policy 01	Policy 02	Policy 03	Policy 04	Policy 05	Policy 06
Definition of the research data	○	○	○	○	○	○
Exceptions to policy	○	○	○	○	●	●
Embargoes	○	○	○	●	●	●
Supplementary materials	○	○	○	●	●	●
Data repositories	○	○	○	●	●	●
Data citation	○	○	○	○	●	●
Data licensing	○	○	○	○	○	○
Researcher/ author support	●	●	●	●	●	●
Data availability statements		○	●	●	●	●
Data formats and standards				○	○	●
Mandatory data sharing (specific data types)				●	●	●
Mandatory data sharing (all papers)				○	●	●
Peer review of data				○	○	●
Data Management Plans (DMPs)				○	○	○

Hrynaszkiewicz, I., Simons, N., Hussain, A., Grant, R. and Goudie, S., 2020. Developing a Research Data Policy Framework for All Journals and Publishers. *Data Science Journal*, 19(1), p.5. DOI: http://doi.org/10.5334/dsj-2020-005

Key:

○ = Information required

● = Information and action required

- = Not applicable

Existing policies map to the framework

	Policy 01	Policy 02	Policy 03	Policy 04	Policy 05	Policy 06
Definition of the research	○	○	○	○	○	○
	○	○	○	○	●	●
		○		●	●	
Supplementary materials		○		●		
Data repositories	○	○		●		●
	○	○	○		●	
		○				
Researcher/ author support	●	●		●	●	●
Data availability statements						
Data formats and standards						
Mandatory data sharing (specific data types)				●	●	●
Mandatory data sharing (all papers)				○	●	●
Peer review of data				○	○	●
Data Management Plans (DMPs)				○	○	○

E.g. Springer Nature policy 4, Elsevier policy 5

E.g. Springer Nature policy 1

E.g. Elsevier policy 4

E.g. Wiley policy 1, Taylor & Francis Basic policy

E.g. Wiley policy 3, PLOS policy

E.g. Wiley policy 2, TOP level I

Key:

○ = Information required

● = Information and action required

‐ = Not applicable

Example feature: Data repositories

Feature definition and evidence for its inclusion

Data repositories	State position on the use of data repositories. Data repositories are the preferred mechanism for sharing data with community/discipline specific repositories preferred to general repositories, where they are available.	Lack of an appropriate repository or lack of awareness of repositories are common reasons reported by researchers for not sharing data (Stuart, Baynes, Hrynaszkiewicz, *et al.*, 2018). Journal and publisher information for authors is an important way of raising awareness of the availability of repositories for the majority of research data (Schmidt, Gemeinholzer & Treloar, 2016).

Data repositories	The preferred mechanism for sharing research data is via data repositories. Please see <recommended repository list> or https://repositoryfinder.datacite.org/ for help finding research data repositories. Research data of the types listed in "Mandatory data sharing (specific papers)" must be uploaded to an appropriate repository. The journal will require authors to deposit these in an approved repository as a condition of publication.

Template text for journal information for authors

Impact & adoption in the last 24 months

- Collaboration with STM Association to promote policy adoption to nearly 150 member publishers (Oct 2019)
- *Scientific Data* journal (Springer Nature) and all PLOS journals' policies updated to align with framework - inclusion of DMPs (Nov 2019)
- Published in *Data Science Journal* (Feb 2020)
  - 14 citations (according to Google Scholar)
- Recognised as an RDA Supported output (June 2020)
- Informed assessment of Earth Science and Biodiversity Journals policies*
- Slovenian Scientific Journals pilot policies with the framework**

*Hübner, A., 2020. Earth Science and Biodiversity Journals can Improve Support for Data Sharing. *Data Science Journal*, 19(1), p.37. DOI: http://doi.org/10.5334/dsj-2020-037
**Štebe, J., Dolinar, M., Bezjak, S. and Inkret, A., 2020. Implementing the RDA Research Data Policy Framework in Slovenian Scientific Journals. *Data Science Journal*, 19(1), p.49. DOI: http://doi.org/10.5334/dsj-2020-049

Self assessment use case: *31 Earth Science and Biodiversity Journals published by German Learned Societies using the framework (Hübner, 2020)*

Feature (#)	Number of journals that address this feature
Supplementary materials (4)	19
Data repositories (5)	12
Data citation (6)	10
Data availability statements (9)	9
Data formats and standards (10)	8
Definition of research data (1)	7
Data licensing (7)	5
Researcher/author support (8)	3
Definition of exceptions (2)	2
Mandatory data sharing (all papers) (12)	2
Mandatory data sharing (specific papers) (11)	1
Embargoes (3)	0
Peer review of data (13)	0
Data Management Plans (14)	0

Implementation use case: *Implementing the RDA Research Data Policy Framework in Slovenian Scholarly Journals (Štebe et al., 2020)*

- Four pilot participating journals (from fields of archaeology, history, linguistics and social sciences) adjust their journal policies regarding data sharing, data citation, definitions of research data, and data repositories
- The main conclusion is that the RDA Framework can play a major role in delivering awareness about the principles and examples of how to deal with data sharing
- Highlighted importance of discipline specific resources

Štebe, J., Dolinar, M., Bezjak, S. and Inkret, A., 2020. Implementing the RDA Research Data Policy Framework in Slovenian Scientific Journals. *Data Science Journal*, 19(1), p.49. DOI: http://doi.org/10.5334/dsj-2020-049

Thanks for listening

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