

Data Policy Implementation

Practices and Perspectives from the
Scholarly Publishing Community

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SSP 2018 - Chicago - June 1, 2018



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Open access to published scientific findings is of limited value if **open access to well-documented research data and accompanying analysis code** is not also included.



Without certifying that the data and code that underpin the scientific literature are available and meet community-accepted quality standards, **data that are publicly accessible are incomplete or not usable.**



Roche et al (2015) PLOS Biology



Identify the most effective and efficient methods for **implementing data policies** that incorporate data review and verification.



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What barriers inhibit understanding of data policies and fulfilling the criteria for compliance with policies?

Editor Survey 113 / 678 (16.7%)

Author + Reviewer Survey 81 / 525 (15.4%)

Identify the most effective and efficient methods for **implementing data policies** that incorporate data review and verification.



How well do data policies communicate the actions necessary for authors to fulfill criteria for policy compliance?

Identify the most effective and efficient methods for **implementing data policies** that incorporate data review and verification.



What improvements to integrated manuscript publication and data review workflows could reduce the burden of policy implementation and compliance on editors, reviewers, and authors?

Data Journal Interviews 24

NOT YET COMPLETED



Does the data policy issued by the journal require authors to do the following?

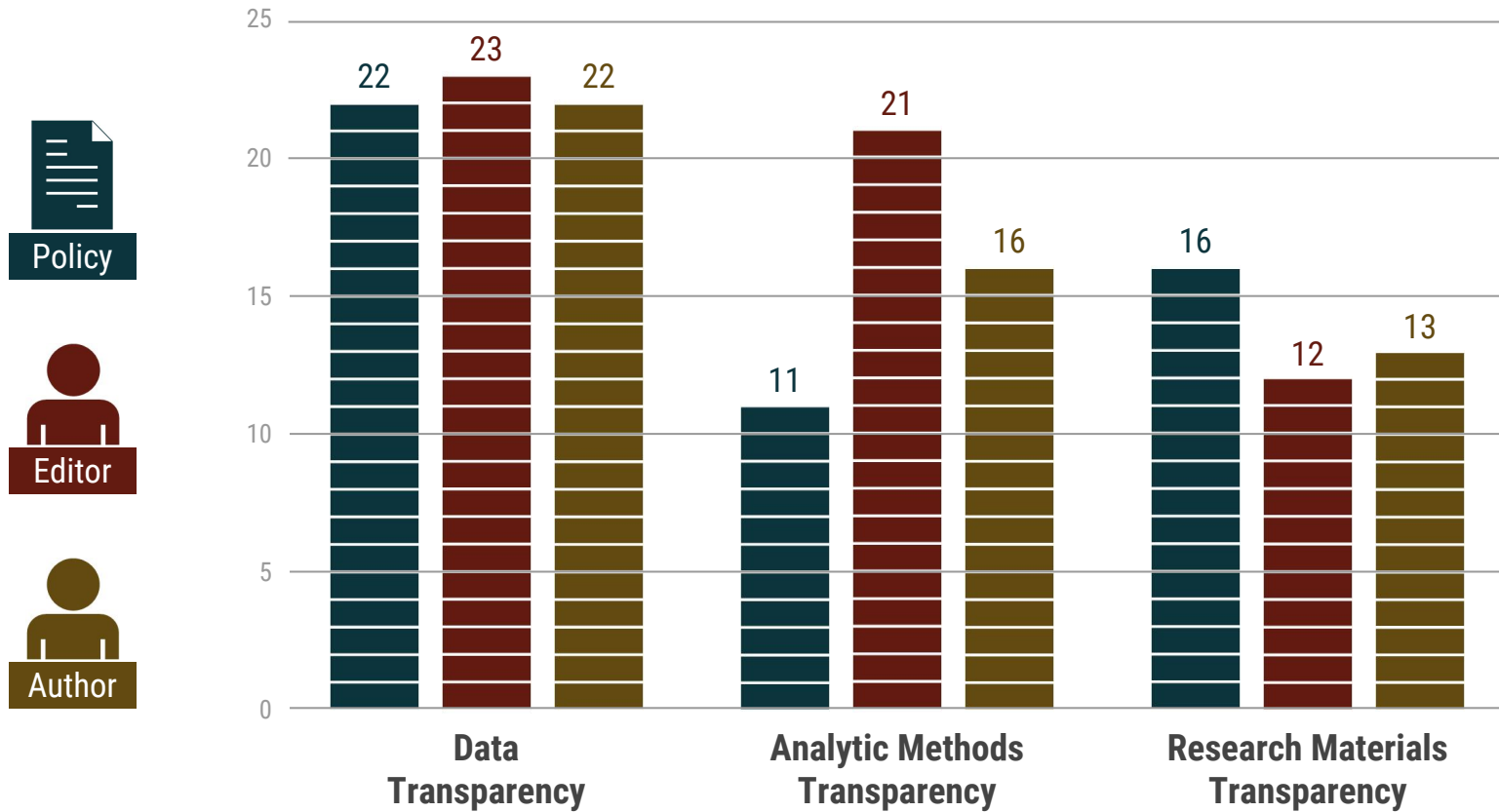
Did the data policy issued by the journal require you to do the following?

- ✓ Submit **data** underlying article findings to a trusted repository
- ✓ Submit **analytic methods** (e.g., code, scripts, packages) to a trusted repository
- ✓ Submit **research materials** (e.g., codebook, readme file) to a trusted repository



COS TOP GUIDELINES	TOP LEVEL 0	TOP LEVEL I	TOP LEVEL II	TOP LEVEL III
CONDITIONS	--	availability statement	availability statement + repository	availability statement + repository + analysis review
STRENGTH OF LANGUAGE	encourage support	conditional require must	should mandatory	compulsory expect
RELEVANT TERMS	Terms to describe:	<u>data</u> dataset sequence array	<u>analytic methods</u> code programs scripts	<u>materials</u> documentation explanatory file protocols

Policy language vs. policy comprehension





What strategies or mechanisms have contributed most to the success of data policy implementation for the journal?

“The success appears to be largely driven by **shifting attitudes in the discipline** towards the recognition that data archiving is a good thing and the **cooperation among leading journals** to implement this policy at the same time.”

“Developing policies with significant **input from stakeholders and broad consensus**”

“Strong **community buy-in.**”



How challenging did you find the following aspects of fulfilling data policy requirements?

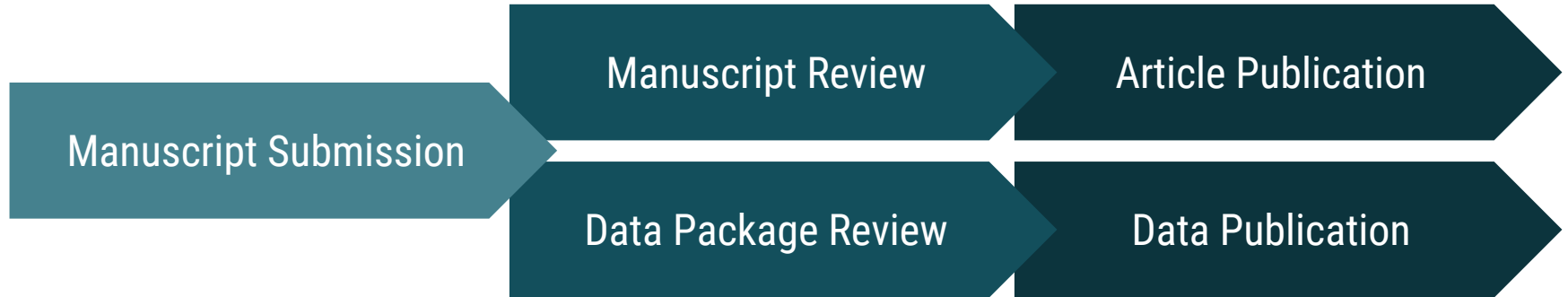
	Very challenging	Somewhat challenging	Only a little challenging	Not challenging at all
Submit <u>data</u> ...	1 (2%)	3 (5%)	23 (41%)	29 (52%)
Submit <u>analytic methods</u> ...	1 (3%)	6 (18%)	8 (24%)	19 (56%)
Submit <u>research materials</u> ...	0 (0%)	2 (8%)	8 (32%)	15 (60%)

Best Practices for Implementing a TOP Level III Data Policy

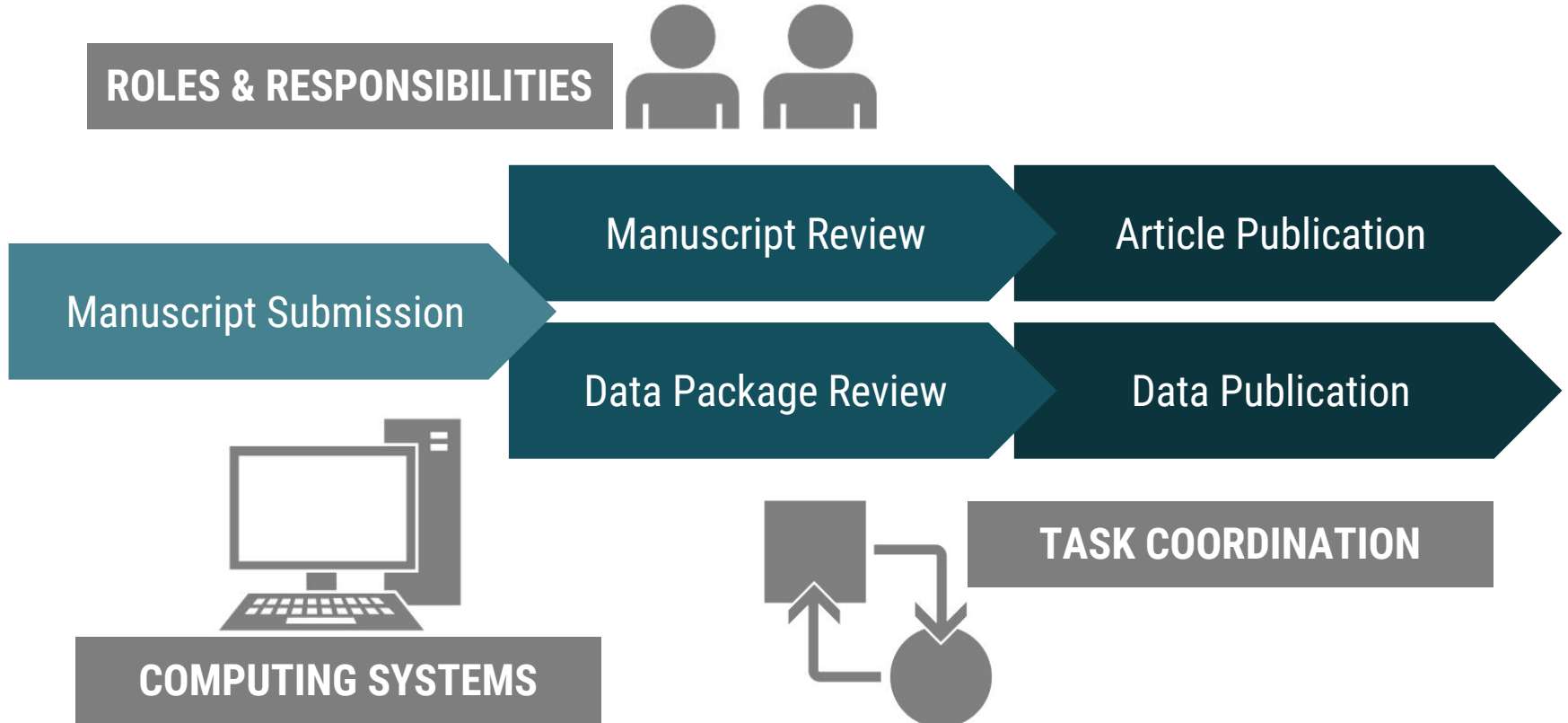


1. Policy awareness and understanding
2. Policy support and guidance
3. Standard policy criteria
4. Data quality standards
5. Data repository partnership

Best Practices for Implementing a TOP Level III Data Policy



Best Practices for Implementing a TOP Level III Data Policy





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THANK YOU!

Increasing the Value of Open Access Through Open Data Publication Policies

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Support for this research was provided by the Robert Wood Johnson Foundation (OAR 74419). The views expressed here do not necessarily reflect the views of the Foundation.