

Adoption of Transparency and Openness Promotion (TOP) guidelines across journals

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ABSTRACT

The Transparency and Openness Promotion (TOP) guidelines include eight modular standards, with three tiers of increasing stringency, which journals can adopt to promote open science (Nosek et al. 2015). Standards evaluate journal policies on data citation, data transparency, material transparency, code transparency, design and analysis, study preregistration, analysis preregistration, and replication.

To get an idea about whether TOP guidelines are being adopted by journals, we analysed the policies of 1,219 journals available on the website of the Center for Open Science. Journals were categorized by the three stringency tiers of eight TOP standards - were analyzed. 68% of the journals have their policies aligned to at least one of the TOP standards, nearly 46% have their policies aligned to data citation standards, and only 10% have a policy for pre-registration of analysis plans or study preregistration. If a journal policy adopts TOP guidelines, it is most likely of the stringency Level 1 (less stringent) across all eight standards (median=70%). However, policies for the "Analysis code transparency" standard are more "stringent" compared to other standards, and half of the journals require Level 2 and 3 stringency, e.g. storage in an open repository and/or code reproducibility. In the future, we are planning to complement these preliminary results with information about the journal policy requirements stratified across different scientific disciplines and to add a component of time - the evolution of requirements from publishers for adoption of open science practices.

Our results already suggest two ways to improve implementation of open science practices: **1)** adoption of policies that promote open science for journals that still have not adopted them, and **2)** increasing the stringency of requirements for open science practices for journals that have.

KEYWORDS

academic publishing; open science; publishing policies; TOP guidelines; Transparency and Openness Promotion

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