

Setting Up a Checkpoint for Research on Journal Data Policies: A Systematic Review

With JDP Toolkit, let's advance open science together.

What's the problem?

To ensure the transparency and reproducibility of scientific discoveries, more and more journals have developed data policies to facilitate researchers' data sharing practices. Many previous studies have investigated the prevalence of journal data policies (JDPs) in certain disciplines. However, it is still unclear 1) how the **prevalence** of JDPs has changed over time and varied by discipline; and 2) when trying to interpret JDPs, what **aspects** researchers are most concerned about.

JDP Toolkit can help.

With a dataset and a meta-analysis report, JDP Toolkit enables users to understand the development of JDPs without performing a time-consuming literature search. **Twenty-seven publications** over the past 25 years (1995-2019) were reviewed and encoded into a datasheet. Users can easily explore not only temporal changes in the prevalence and characteristics of JDPs but also recommendations that were made for journal publishers and future studies by researchers.



* Note: Each circle represents one of the 27 publications, with its identifier listed. Three publications of which the identifiers end with A and B compared the prevalence of JDPs for two time periods. The numbers of JDPs surveyed are displayed next to the circles for three publications of which the sample size was smaller than 30. The circles with solid boundary lines represent eight publications focusing on highly ranked journals or those with high impact factors. Publications that surveyed JDPs in more than two subject areas were categorized as "Multidisciplinary". The year values here were estimated based on when the authors collected data, when the referred journal lists were released, and when the research results were published.

JDP Toolkit tells us...

Despite some differences of each publication in the sampling methods and definitions of data policies, the figure above shows an **upward trend** in the prevalence of JDPs for all the subject areas. A higher percentage of journals in **biomedical sciences** were found to adopt JDPs when compared to those in other subject areas. According to the coding results, researchers are most concerned about **where** they are required to share data (e.g., public repositories or journal websites) when examining JDPs. For more details of JDP Toolkit, please scan the QR code below or visit <u>https://bit.ly/2LwwBvp</u>.

Next Steps!

This capstone project reviewed 27 publications investigating the prevalence of JDPs in different disciplines and built a toolkit that allows users to effortlessly see the big picture of JDPs. Moving forward, the project team plans to periodically **update** the toolkit by including new publications and collecting user feedback to refine the coding frame. Also, the same research protocol can be applied to developing a new toolkit that summarizes studies regarding researchers' **compliance** with JDPs, so the scientific community better knows whether current JDPs really work.

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