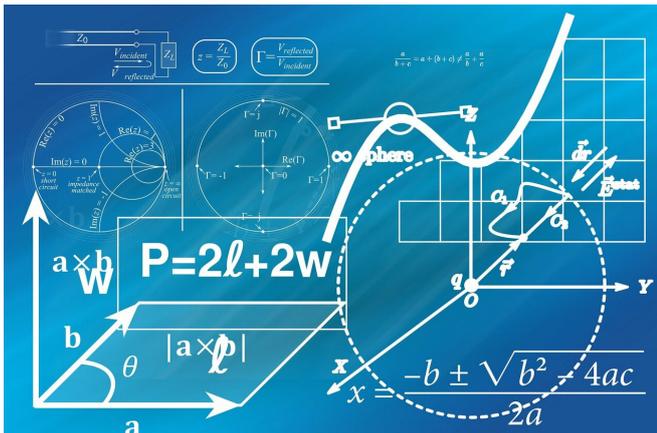


# Moving towards open science needs extensive collaboration and data sharing in Japan

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A whitepaper "Challenges and Opportunities for Data Sharing in Japan" published by Springer Nature reports a survey of researchers in Japan about data sharing and management. The report includes a summary of discussions by key opinion leaders from the Japanese research community, and expresses a commitment to open science and the desire for data sharing best practice to be researcher-led and discipline-specific. The details of the report will be presented at the Japan Open Science Summit (JOSS) 2019 taking place on May 27-28, 2019 in Tokyo, Japan.

The open [science](#) movements aims to remove the barriers for sharing resources related to scientific research at all stages of the research process. Data sharing helps ensure transparency, openness and efficiency in the scientific process, and may lead to benefits such as greater collaboration.

The survey conducted in Japan found that 95% of researchers had shared their data. Amongst those that had shared, 62% had done so both publicly

and privately, while 36% of researchers only shared data privately, mainly with peers. This compares to a global average of 70% of researchers sharing data both publicly and privately.

There was also a difference by subject: physical scientists (40%) are more likely to share data privately than biological scientists (30%). Common methods of private sharing by Japanese researchers were by email (65%) and via external storage devices such as USBs and flash drives (41%). The results showed a low level of awareness of best practice data sharing, such as using more secure and persistent mechanisms, for example data repositories that make data more findable and usable by others.

Japanese researchers are motivated to share their data to support research progression and helping others in a similar field (50%) and for transparency and re-use of data (42%). Concerns about the misuse of data (49%), followed by copyright and licensing concerns (42%) were most commonly stated as a barrier for data sharing.

According to the [survey results](#), 56% of researchers in Japan have once or more created a data management plan (DMP). A DMP is a document that outlines how research data will be collected, stored and shared. Data management standards known as FAIR (findable, accessible, interoperable and reusable) principles have been set by the research community.

In a survey conducted in China, 93% of researchers responded that they have created a DMP—well above the [global average](#) of 70%. However, the frequency of this planning varies, and the proportion of researchers who always create a DMP in Japan, China and globally, are found to be 12%, 13% and 9% respectively.

Unfamiliarity or lack of requirement by either the funders or institutions to create DMPs, are the main reasons why researchers have not made one before. On average 23% of the respondents are not aware of what their main funders' requirements are in relation to data sharing, and 34% of researchers do not know what their main funders' requirements are with regard to DMPs. Provided by Springer

In a roundtable discussion conducted in 2018 with representative members from Tohoku University, National Institute of Informatics (NII), Japan Science and Technology Agency (JST), National Institute of Information and Communications Technology, Japan Society for the Promotion of Science (JSPS) and the National Institute of Science and Technology Policy (NISTEP), it was suggested that researchers need both training and support on new skills like data management, which needs to be discipline specific. More discipline-specific case studies from Japan and compelling examples of the benefits of data management, data sharing and reuse will be necessary for promoting open science in Japan.

Iain Hrynaszkiewicz, Head of Data Publishing, Springer Nature: "Our latest white paper shows that there are good examples of leadership on the practice and promotion of [open science](#) in Japan. However, more effort and collaboration—between funding agencies, publishers, researchers and institutions—is needed to establish good practice in [data](#) sharing as a standard part of the research process for the entire research community."

This survey of researchers in Japan follows a global survey in 2017 about [data sharing](#) with more than 7,000 researchers worldwide. In total, 1,393 responses were received from active researchers in Japan, representing all major research disciplines and career stages. The full dataset and the "Five Essential Factors for Data Sharing" published in April by Springer *Nature* are openly available on Figshare.

**More information:** Practical challenges for researchers in data sharing. Journal Contribution posted on 21.03.2018, 02:37 by David Stuart et al. [figshare.com/articles/Whitepap ... data\\_sharing/5975011](https://figshare.com/articles/Whitepaper.../data_sharing/5975011)

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