



How Elsevier is supporting the value and usefulness of data with Cross-linking and Research Data Services.

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Research in the Earth & Planetary Sciences is characterized by a wealth of observational data – ranging from observations by satellites orbiting the Earth, to borehole measurements at the bottom of the ocean, and also includes data from projects like the Rover Curiosity Landing. Thanks to technological advancements, it has become much easier for researchers over the last few decades to gather large volumes of data, analyze, and share with other researchers inside and outside the lab.

With data serving such an important role in the way research is carried out, it becomes a crucial task to archive, maintain, organize, and disseminate research data in a dependable and structured manner. Subject-specific data repositories, often driven by the scientific community, are taking an increasingly prominent role in this domain, getting traction amongst researchers as the go-to place to deposit raw research data.

At the same time, the scientific article remains an essential resource of scientific information. At Elsevier, we strive to continuously adapt the article format to meet the needs of modern-day researchers. This includes better support for digital content (see, e.g., <http://www.elsevier.com/googlemaps>), but also bidirectional linking between online articles and data repositories. In this spirit, Elsevier is collaborating with several leading data repositories, such as PANGAEA, IEDA, and NERC, to interlink articles and data for improved visibility and discoverability of both primary research data and research articles.

In addition, Elsevier has formed a new group, Research Data Services, with three primary goals:

- help increase the sharing and archiving of research data in discipline-specific repositories
- help increase the value of shared data, particularly with annotation and provenance metadata and linking discipline-specific datasets together
- help create a credit and impact assessment infrastructure to make research data independently important in its own right.

We are working on several initiatives at Elsevier that enhance the online article format, and to make it easier for researchers to share, find, access, link together and analyze relevant research data. This helps to increase the value of both articles and data, and enables researchers to gain full credit for their research data output.