



Automated Attribution and Credit for Data: Connecting Publication to Data – and Data to Data Creators

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Advances in science, both today and in the future, will depend on the openness, accessibility and reusability of data, software, samples, and data products. In particular, environmental, ecological, and geological data represent single observations of dynamics and thus are critically important in aggregate. Similarly, global data on many phenomena and systems are essential for many applications to society, including weather prediction, hazard mitigation, water use, and GPS navigation, and thus have major economic benefits. Yet, large amounts of research data related to the Earth and its ecosystems are either not well preserved or preserved at all. And when they are preserved, the creator of those data is not always identified, resulting in difficulties in attributing the data resulting in proper credit.

In some scientific domains, the practice of preserving data in a trusted repository is improving. During the last 18 months the Enabling FAIR Data project has made significant improvements in the common policies across the Earth, space, and environmental science journals and repositories. Many journals are now in the process of transitioning new practices for data that require data no longer be archived in the supplementary information of a paper, but instead placed in a repository with proper metadata, persistent identifier, and links to the manuscript and data creators.

More recently a new grant has been awarded by the Belmont Forum to a group of international stakeholders working on the infrastructure of data sharing, reuse, and credit to make sure that all the elements needed for automated attribution are in place. Credit for data promotes data preservation, resulting in increases of data reuse. We are partnered with communities such as Earth Science Information Partners (ESIP) and Research Data Alliance (RDA) as well as organizations such as ORCID and DataCite to address continued challenges with data attribution and credit. In this presentation we will review the project objectives, planned timelines, and outreach efforts planned to improve automated attribution and credit for data.