Framing Attribution and Acknowledgement Content for Scientific Data: Preliminary Matrix and Schema

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Introduction

As an important part of the research and data lifecycle, recognizing contributions to the production, management, and preservation of data can have significant academic and professional impact as well as social and cultural influence. Defining and clarifying contributions and the relationships of specific individuals and organizations can be challenging, however. The challenge is accentuated as scientific projects become more collaborative and as the diversity of skills and expertise involved in producing the resulting datasets expand.

Research Objectives

To create and implement a framework for organizing, documenting, and storing contributions for a scientific project and its related products through:
- The Attribution and Acknowledgement Content Matrix template
- The Attribution and Acknowledgement Content XML Schema

Method

Groundwork: The framework for the contributing areas is developed based on the work previously completed and showcased in the following poster:

Literature Review: The publications cited under the References section are the main resources used to summarize the contributing categories and the roles and relationships among them for a scientific project and its resulting products.

Supplemental Models of Inspiration: The matrix template and the schema are built based on the work experience with other matrices and schemas, such as Data Maturity Matrix (http://wiki.esipfed.org/index.php/Data_Maturity_Matrix), Dublin Core, and ISO19115.

Lessons Learned / Conclusion

- Many standards for contributing roles and types are being defined by various organizations and institutions. However, a consistent set of defined standards has not yet been reached.
- A mechanism for integrating the contributing roles and types into metadata, such as XML records through the use of schema, is also not yet available.
- These two issues are important to be investigated and resolved in order to improve scalable implementation for attributing and acknowledging contributions.

Future Work

- Solicit test users for both the Attribution and Acknowledgement Content Matrix Template and Schema.
- Evaluate feedback from test users to determine capabilities/functions needed for next implementations.
- Consider augmenting the framework with an attribution and acknowledgement ontology.

References


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