UC San Diego News Center

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Coalition of Scholars Calls for Worldwide Endorsement of Data Citation Principles

A global coalition of professors, researchers, publishers, librarians and other scholars is calling for worldwide endorsement of "The Joint Declaration of Data Citation Principles" designed to advance sound, reproducible scholarship and create an enduring scholarly record for the digital age. The final Principles were a culmination of work by 40 individuals representing more than 25 organizations from across the globe who all contributed to the development of the Principles.

The <u>Data Citation Principles</u> reflect the modern reality of scholarship, where the very data used to form ideas or conduct research is of intellectual



Maryann Martone. Photo by Scott Klemmer

value and should be considered, as the group states in the Preamble to its Joint Declaration, "legitimate, citable products of research."

"Scholars don't just produce written text — they produce software code, workflows, data and databases," says Maryann Martone, a professor of Neuroscience at the University of California, San Diego, and president of Force 11 (the Future of Research Communications and e-Scholarship), the group that facilitates the work of the coalition. "These things are all scholarship themselves, but there's not currently a consistent way of citing them in academic literature."

Martone says the Principles are also designed to promote best practices in data citation and prevent a two-tier society "where those who analyze the data receive all of the credit for scholarly work, while the contributions of those who create or aggregate the data — like software engineers — are unacknowledged"

The 8 Principles — which delineate the purpose, function and attributes of citations — call for a persistent method for identifying and accessing data in a way that is understandable by both humans and machines.

"More and more, scholarly work is meant to be consumed by machines and not just people," adds Martone. "That's why metadata is so important. If, for example, you cite a URL in a paper right now, it may have no metadata telling you what data was used, who produced them or how to access them. Worse, by the time that research is published, many of the cited links are broken with no indication of what happened to the data. The 404 not found error is decidedly unsatisfactory in scholarship. Proper citation of data also promotes reproducible research, since it allows us to identify the exact data used to support a claim."

The Data Citation Principles call for each data set to be given a persistent identifier and to be described by consistent metadata, as we do already for articles and books.

Force 11, which is based at the UC San Diego division of the California Institute for Telecommunications and Information Technology (Calit2), also known as the Qualcomm Institute, will be reaching out to scholars and scholarly organizations around the world in the coming weeks to seek endorsement of the Principles and discuss implementation.

To view and endorse the Principles of Data Citation, visit go here.

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