

## **A Statement for the Management of Massive Datasets: New Partnerships**

In the future, a researcher will read an article multi-dimensionally. Not only will there be text, with hyperlinks to related literature or citations within the article, there will be links to the data reported within the article, through graphs, tables, illustrations, that will link to related datasets.

These datasets will be organized and retrieved based upon accepted, documented and well understood taxonomies and ontologies within the discipline, crosswalks will link, automatically, between one taxonomy and another to lead a researcher from one field of enquiry to another, thereby making connections from the findings and results in one field to another.

Disciplinary scientists, computer scientists, computer technologists, and librarians as data scientists within university, professional societies and other research entity will work as teams to collaborate, from creation of the research project to the dissemination of the findings to the curation of the data for the present and for the future.

Creating a “community proxy” will be the work of the disciplines in collaboration with librarians to determine the logical description and structure in which data would be organized and accessed. Massive data set repositories will be distributed around the world, in locations adjacent to related research centers, providing access to the international research community.

Universities, research laboratories and governmental units will share in this undertaking, each picking off a “piece” of the massive undertaking, as exemplified by the recent agreement between the San Diego Super Computer (SDSC) and the National Archives and Records Administration (NARA).

This brave new world will be time consuming, challenging and expensive to create. It will be imperative that research funding organizations such as the National Science Foundation step up to help facilitate and cause this vision to materialize.

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