

Global Scientific Data Infrastructures: Empowering the Multidisciplinary/interdisciplinary Science

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Abstract

Science is becoming **data-dominated** and a new **data-centric** way of thinking, organizing and carrying out research activities is gaining ground which needs to be supported by a new type of e-infrastructure: the **Scientific Data Infrastructure**.

Scientific Data Infrastructures can be defined as managed digital data-networked environments consisting of services and tools that support the full life cycle of data (capture, collection, curation, documentation, analysis, visualization, preservation, and publication) for the benefit of different communities of researchers involved in data-intensive activities.

The next generation of scientific data infrastructures is facing two main challenges:

- To effectively and efficiently support **data-intensive Science**
- To effectively and efficiently support **multidisciplinary/interdisciplinary Science**

This talk will address the main problems that must be solved in order to support multidisciplinary/interdisciplinary research.

In particular, the major technological barriers that must be overcome when moving information objects (knowledge) between disciplines and when integrating information/knowledge created by different disciplines will be addressed.