

## Members update – Metadata: the new A&I (abstracting and indexing)

This session is aimed at informing NFAIS members of the potential threat and even greater opportunity the growing interest in “metadata” presents to the abstracting and indexing community.

*Chair:*

Gladys Cotter, US Geological Survey (Biological Resources Division)

*Speakers:*

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| Dick Kaser      | NFAIS Executive Director<br><i>Report from the NFAIS/USGS Metadiversity Symposium – Why Should We Care about Metadata?</i>             |
| Stuart Weibel   | Senior Research Scientist, Office of Research OCLC<br><i>The Metadata Landscape</i>  |
| Eliot Christian | Computer Specialist, USGS<br><i>Toward a Global Information Locator Service</i>  |
| Donald Waters   | Director, Digital Library Federation, Council on Library and Information Resources<br><i>Metadata: Foundation of Digital Libraries</i> |

### **Metadata: Reinventing A&I**

Secondary publishers have understood the importance of identifiers and links since they began designing databases for online searching more than half a century ago. Now, with the advent of the Internet and the emergence of new search engine impresarios, the A&I landscape is being recast through a newer broader concept that describes more than traditional published literature. This concept is metadata, or data about data. But metadata is more than A&I; it is broader than indexing classification.

*Metadiversity*

Over the last year, NFAIS (“the Metadata Experts”) has come to prominence in the metadata movement. In 1998, NFAIS sponsored—under a cooperative agreement with the US. Geological Survey – a symposium on Metadata for Biodiversity Information Management (Metadiversity for short). Dick Kaser, Executive Director of NFAIS, describes this strategic initiative.

In the convergence of metadata and biodiversity, Kaser presents some definitions. Biodiversity is the study of more than 2 million species and their habitats and ecosystems. Metadata is data about data – it’s all about retrieval.

Kaser enunciates several first principles of metadiversity:

- Not all information is stored in documents; some are in physical forms such as museum specimens, and an increasing amount is visual.
- Nothing lasts forever.
- We are all part of the biosphere, and we are each of us a steward for this creation.
- NFAIS has extensive experience in creating citation metadata. But, why do we exist? Do we exist to create links between secondary or primary citations, or do we exist to help people find the information they need to conduct their research?
- Will NFAIS members be crafters of vast future, interoperable, metadata-empowered systems that permit the look-up of factual information, images, and other data objects?

Kaser suggests that some ways to become involved in these metadata initiatives are to form alliances with others, lend your expertise to some of these projects, reinvent yourselves and what your organization does, and attain government funding to build some of these systems.

### *Digital Libraries*

Metadata discovery is occurring on several fronts. Donald Waters, Director, Digital Library Federation, Council on Library and Information Resources, discusses the “metadata foundations” of digital libraries, and proposes some design and implementation solutions to ensure the availability of rich and coherent services in digital libraries.

Metadata demands infrastructure involving three types of metadata – descriptive, structural, and administrative. In the magical scheme of threes, Waters names three key design principles: (1) the need to separate indexing from access, (2) the need to provide reference linking, and (3) the need to incorporate new genres of publication.

### *The Dublin Core*

In the world view of Stuart Weibel, Senior Research Scientist, Office of Research at OCLC, metadata is “a surrogate for the resource that will make it easier to find the data, as the keyword does”.

Semantic interoperability in the “Internet commons” is largely being realized through such efforts as the Dublin Core (DC) metadata project. The goal of this project is to improve resource discovery on the Web on an international and interdisciplinary basis. DC metadata are designed to be “extensible”, explains Weibel, for interoperability.

Dublin Core is on the way to standardization, as both a NISO and CEN (European equivalent of NISO) Work Item. Early adopters of the DC are governments in Australia and Denmark, the museum community, libraries, professional societies, educational materials projects, and Web resource initiatives. Weibel also points to the RDF (Resource Description Format) data model as a necessary adjunct to the DC – to support the structural interoperability of metadata architecture.

### *The Global Information Locator Service*

In Eliot Christian’s mind, metadata gives data “context”, Christian, a Computer Specialist for the US Geological Survey, is concerned with global change information management. His Global Information Locator Service (GILS) is another attempt to demystify information discovery on the Web ... and a system designed to be sustainable around the world and long into the future. GILS is complementary to such metadata as DC metadata; the service provides a way to locate all different forms of metadata.

A federal mandate requires all US Cabinet-level agencies to be GILS compliant. Commercial operations such as AT&T, Ameritech, and Hyundai are also using the GILS search standard. However, GILS doesn't threaten traditional search mechanisms. "We are creating a standard interface so that things can be found, building on the existing standard bibliographic techniques," explains Christian.

Web look-ups: DUBLIN CORE: <http://purl.org/dc>  
RESOURCE DESCRIPTION FORMAT: <http://www.w3c.org/RDF>  
GILS: <http://www.gils.net>