

BDEI - Event And Process Tagging For Information Integration in the International Gulf Of Maine Watershed

15 Month Planning Grant

Principal Investigators

Kate Beard	<i>Department of Spatial Information Science and Engineering</i>
Jeffrey S. Kahl	<i>George Mitchell Center for Environmental & Watershed Research</i>
Neal Pettigrew	<i>School of Marine Science</i>
Malcolm Hunter	<i>Department of Wildlife Resources</i>
Marilyn Lutz	<i>Fogler Library; US & Canadian Government Documents Repository</i>

Institutional Setting

The data and data-gathering activities of agencies, NGOs, and academic and research institutions operating within the Gulf of Maine watershed

Jurisdictions:

Massachusetts

New Hampshire

Maine

New Brunswick

Nova Scotia



Activities

- Digital Catalog of data and data collecting activities
- Development of a steering committee
- 2 Day workshop at Roosevelt Campobello International Park
- Development of prototype event and process model
- Development of a follow – on proposal

Workshop

June 12-14 at Roosevelt Campobello International Park

Participants:

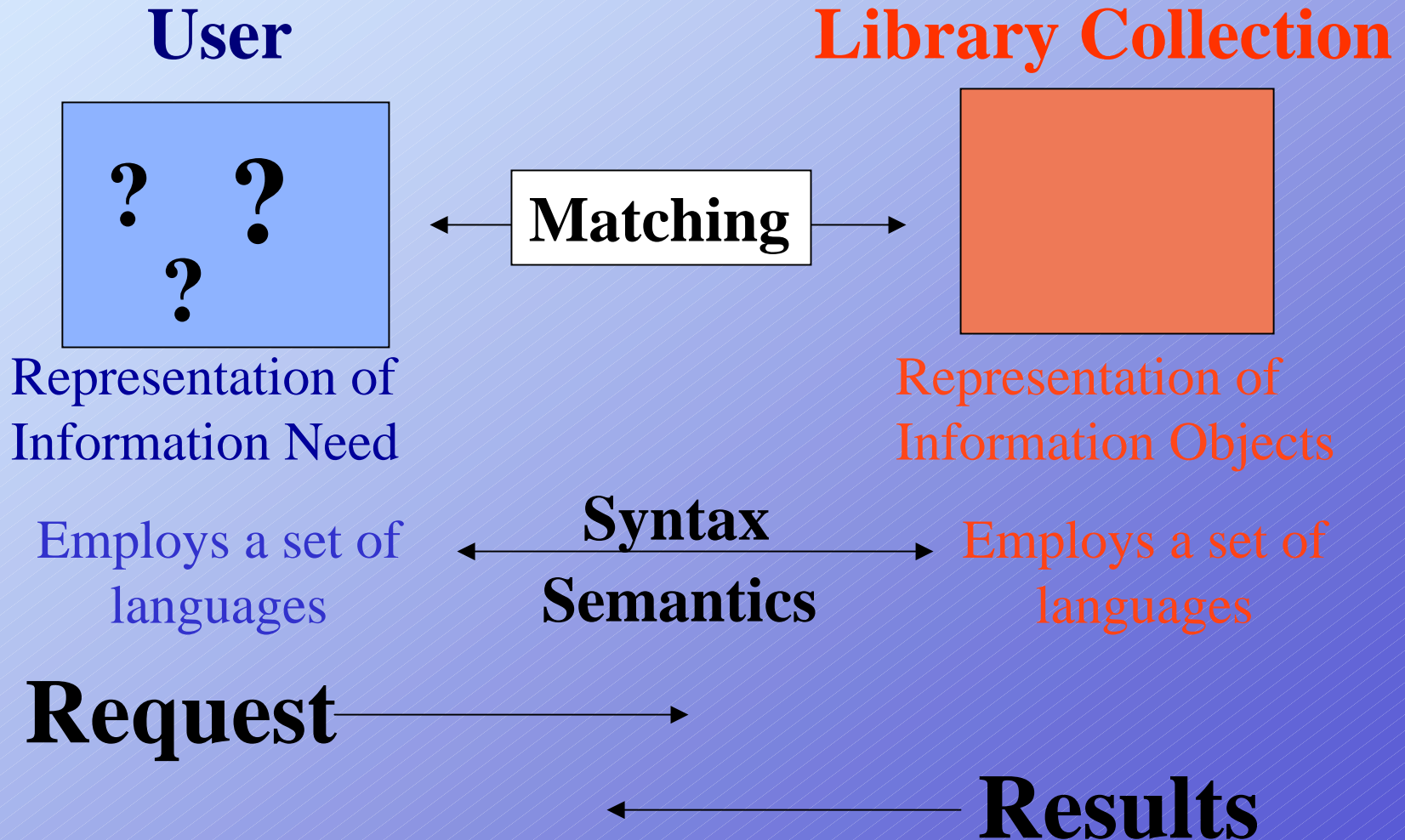
- State, provincial, federal government representatives
- Academic/research institutions

Disciplines: hydrology, marine science, biology, chemistry, climate

Workshop objectives

- To discuss issues surrounding the integration of scientific data sets across disciplines and across regional and national boundaries
- Begin development of an ontology of events and processes
 - environmental events
 - human induced event
 - the role of spatial and temporal scales.
- Identify mechanisms for on-going collaborations

Meta-Information Model



Meta-Information Model

Information objects → Scientific data sets

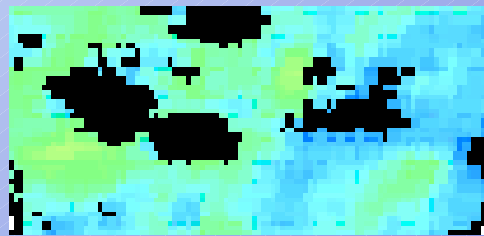
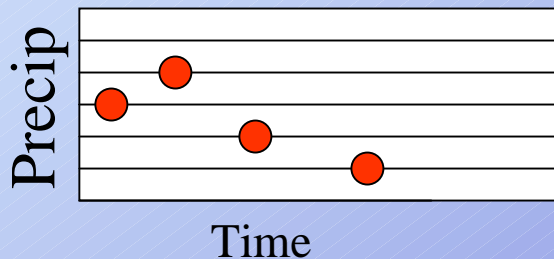
What are information retrieval goals from scientific data sets?

Events **Rain events for August, severe storm events and marine algal blooms**

Processes **Information on eutrophication of Maine lakes**

Why Events and Processes

- Common unit of interest among scientists
- Extreme diversity among scientific data observations makes integration at the observation level difficult
- Events and processes offer a higher level of abstraction



May 18, 2002, 16:54

Observations



(Event ID, Type, Intensity, Start Time, End Time, Spatial Extent, ObservationIDs)

Ontology Development Goals

- Create a shared understanding of a domain
- Create a foundation for a common language to characterize events and processes
- Formalize concepts and relationships that can be used in various systems