

### **Script for Slides for Presentation:**

“Needs Assessment and Partnerships: the Evolution of a Natural Resources Digital Library at Oregon State University,” paper presented at Conference on Information Interoperability and Organization for National and Global Forest Information Systems, September 17-19, 2003 Quebec City, Quebec.

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#### **Slide 1:**

Oregon State University Libraries has a vision for digital library development that includes the user as both partner and beneficiary. Our experience addressing this human dimension of interoperability is what we would like to share with you today. As a geographer, Janine represents the natural resource user, I represent the subject librarian, and though she is not able to be here, Catherine offers, among other things, the library administrator perspective.

#### **Slide 2:**

Like other land grant institutions, Oregon State University is looked to as a credible source of data and synthesized information related to our state and region's natural resources. OSU has earned a substantial reputation as a research institution in the areas of forestry, fisheries, and oceanography as well as agriculture.

Our campus home, Corvallis, is also home for researchers employed by the US Forest Service, the US Geological Survey, US Environmental Protection Agency, and the State of Oregon's Fish and Wildlife Department.

In 2001, the Oregon Legislature recognized the central role played by OSU in natural resources research when it authorized the creation of the Institute for Natural Resources. The Institute's charge includes making natural resource research findings more readily available to policy makers and the general public.

The University Librarian has advocated for OSU Libraries to take a lead role in this information sharing function of the Institute.

#### **Slide 3:**

Neither the staff size nor the collection of OSU Libraries is large by comparison to those of universities of equal research stature. Still our natural resources collection is substantial and we have chosen to continue strengthening this collection particularly in forestry and fisheries.

Like most academic libraries, we see ourselves as user centered with a strong service ethic. As more of our services are delivered via the Internet, user self-sufficiency, as opposed to mediated service, has become a primary goal.

Through the decade of fundraising to pay for a building project, we have acquired considerable skill in working with partners and donors. Seeking out targeted gift funds continues to help us to maintain our current collection strengths, provide for staff development, and are a source of seed monies for innovation.

Grant writing, however, is a less well-developed skill among our librarians, though we have been written into grants as collaborators for many years.

In light of this, assuming a lead role in the information sharing duties of the Institute for Natural Resources and continuing our library collection building activities means an increased commitment to fund raising, grant writing and putting a greater value on what we have to offer as a partner.

**Slide 4:**

Without entering into the “what is a digital library” debate, we think it may be helpful to look at some of the attributes of a good traditional library and how they play out in a digital library setting:

A good traditional library:

Validates information by selecting, organizing (including cataloging) and preserving it, and encourages resource sharing  
Provides at least walk-in access to its resources and helps users find that information  
Builds on historical strengths but provides for current user needs

A good digital library:

Provides a quality filter, contributes and/or uses metadata and observing appropriate standards  
Provides access to information through the Internet  
Facilitates web searching, provides a user friendly and useable web interface  
Assesses user needs and incorporates user input

The traditional library provides a set of values we want to maintain in the digital environment but we need to evolve new services as well.

**Slide 5:**

Definitions for digital libraries differ. The National Science Foundation uses one proposed by UK librarian, Mel Collier. We like its reference to multimedia materials, and its emphasis on management as well as access, and above all, its user focus.

Given this definition, investigating user needs is a necessary starting point for deciding on both the content focus and interface functionality needed for an effective Natural Resources Digital Library.

**Slide: 6-11 (Janine and Needs Assessment Process and Results)****Slide 12:**

As a librarian, the results of the needs assessment and the conceptual framework make sense to me. I understand the need for a distributed information system and a full range of user defined geographic levels. But I see this to be a huge, on-going process. It assumes a wide range of expertise, and only some of that expertise resides in the library.

To build and maintain such a digital library we need long-term relationships with experts in a variety of areas. We need technological expertise to develop infrastructure, we need subject experts and users to identify information and assure both depth and breadth, and we need skilled fundraisers and experienced cost sharers.

**Slide 13: (Janine and Partnership resources)****Slide 14:**

We've talked about our need to partner with a variety of experts and now we would like to highlight four projects-in-process that we think illustrate how partnerships can help us build a Natural Resources Digital Library.

While looking at these projects, we asked ourselves

- What is the project content?
- Who are the project collaborators?

- How are they involved
- What motivates their involvement?
- Is there a linkage among the collaborators that will extend beyond the project, in other words, is it a partnership?
- How will these projects interoperate (what are the unique approaches that might have a broader application)?

**Slide 15:**

Some of you may be aware the Greater Western Library Alliance, or GWLA, has proposed the creation of a **Western Waters Digital Library** that would organize and make available to policy makers and the general public, high quality scientific research and accurate historical records in a variety of formats concerning to the great rivers of the Western United States. Initial rivers basins of interest would be the Colorado, the Columbia, the Platte and the Rio Grande. Much of this material is currently housed in member libraries and their home institutions. But it is not necessarily easily searchable. Under this proposal these collections would be identified, and cross collection searching would be made possible through a central metadata. So it is specifically aimed at enhancing interoperability for users of this material.

During the project proposal stage, the primary collaboration had been restricted to libraries. More recently the Northwest Alliance for Computational Science & Engineering at OSU has partnered with GWLA in an NSF grant proposal. While we have heard that this proposal was not funded, funding is also being sought through Institute of Museum and Library Services\* (IMLS).

[Note: IMLS is a federal grant-making agency that promotes leadership, innovation, and a lifetime of learning by supporting the nation's museums and libraries. Created by the Museum and Library Services Act of 1996.]

**Slide 16:**

Second, is the Tsunami Digital Library Project brings together the expertise of international tsunami researchers, subject librarians and computer scientists. The digital library is intended to complement a \$4.8-million research initiative funded by the National Science Foundation. This initiative enables researchers anywhere in the world to participate remotely in real-time experiments conducted in a new wave basin housed at OSU. This facility is the largest of its kind in the world.

The Tsunami Digital Library Project is developing a web search interface that employs collaborative filtering. When the user submits a tsunami related query and search results appear, the user's ratings of individual information sources retrieved are logged. Rating of search results is optional. When subsequent users make a similar query, they receive a listing of useful information resources based on earlier users' ratings as well as the results of their query as entered.

While this has a researcher focus at present, in the future users might include policy makers, land use planners, as well as K-12 educators.

**Slide 17: Columbia Basin Stream Survey Photograph Collection**

**Slide 18: Willamette River Basin Digital Library**

**Slide 19:**

Each of these case studies offers a technology we think has application across the range of Natural Resource Digital Library projects at OSU.

Western Waters Digital Library Proposal features metadata harvesting and searching across distributed collections;

The Tsunami Digital Library is investigating collaborative filtering;

Columbia Basin Historical Stream Survey Photos provided us with experience in both digital photo archiving and a geographic search interface; and

The Willamette River Basin Natural Resources Digital Library provides for web enabled GIS services for the end user.

**Slide 20:**

As we spoke with people involved with these projects it was abundantly clear the (rewards and) motivations for long-term involvement among partners in a project differ. We have provided a list of those we encountered, however, what seems to be most important is that these motivations are articulated and understood by those making up the partnership.

As a librarian I am motivated by both the threat of both the increased cost of information access and as a result an inability to access information particularly publicly funded research.

Whereas for a natural resource professional like Janine ...

**Slide 21:**

These case studies and a review of the literature highlight several partnership success factors that we think are present in our case studies. Among these is the presence of,

- A shared community of interest
- An understanding of what partners' see as the benefit to them of participation
- Presence of an executive champion to move the process forward or around obstacles
- Availability of sufficient expertise among partners and a good fit of this expertise to the needs of the project
- Availability or potential for monetary and in-kind contributions to keep the project alive and moving
- Good track records for collaboration and sustained good communication, as well as success with project outcomes for each partners.

Whether our natural resource digital library projects will result in an interoperable digital library remains a question to be answered.

**Slide 22:**

**Janine:** What we know is that we are further along in achieving that end as a result of the needs assessment, which allowed us to identify our user community, and the content and technology parameters that they value. As a result of this activity we are also able to identify potential partners and needed expertise.

**Bonnie:** We continue to learn about how to participate in effective partnerships. We hope this will help us meet the long-term information needs of our natural resources digital library users by addressing interoperability issues earlier. We think in this way, OSU Libraries can contribute leadership to natural resources information initiatives -- not only in Oregon, but also in the Pacific Northwest and perhaps nationally.

**Slide 23:**

We have provided a copy of the slides and a bibliography for you to take, and while this concludes our presentation if you have questions we will be happy to address them.