

information and results. The primary authoring tools in science are Word and LaTeX, both of which create documents with structures (chapters, sections, etc.) and semantics (annotated paragraphs, tables, graphs, etc.). In many cases the theses also contain raw and processed scientific data which can be at least as important as the natural language text.

We have developed vocabularies and ontologies to describe such theses and, for example, are developing an authoring tool for creating semantic chemistry in a Word environment. We urge that institutions encourage semantic theses and have been developing a proof-of-concept (ICE-TheOREm). Here a student can assemble a thesis from components which can be managed locally on a server and create either Word2007 or ODT-compatible documents. Such theses preserve all the semantics and data.

In practice, current theses are deposited as PDFs and to re-use their contents we must resort to natural language processing (OSCAR3) or semi-structured data tools (OSCAR-DATA). PDF has no semantics and reconstruction is seriously lossy but we can often extract meta/data by machine. We urge institutions always to deposit the native Word2007 or LaTeX documents as well as any PDF; in this way they will capture far more of their science.

We also demonstrate lightweight semantic repositories which provide an embargo mechanism for all or part of the thesis (TheOREm, using ORE). The metadata for the documents (including structuring) are converted to RDF which can be queried with SPARQL providing great flexibility.

Our toolkit and examples are based on the premise that all software, protocols and content should be Open.

We thank JISC, and Microsoft Research for support.

ProQuest Dissertations and Theses Database User Survey:

The first large-scale survey of dissertation information seeking behavior

» **Panelist:** Amanda Ross, ProQuest LLC

OBJECTIVE: To develop a clearer profile of researchers who use dissertations and a better understanding of how dissertations are used in the research cycle in order to present dissertations in more effective ways to support research.

METHODS: "Users" are those who accessed the ProQuest platform and/or ProQuest Dissertations and Theses during the course of the survey (April 20 – May 15, 2008), and responded to an invitation link to the survey instrument. An incentive drawing was included. 3,034 individuals took part in the survey.

The survey instrument – mostly of structured single response questions – included a two multi-element questions using a 1-10 rating scale, and two open-ended questions on the object of the search and on usage of competitive databases like PQDT.

RESULTS: Graduate students account for nearly half of database users; undergraduates about a third. Nearly half of all those who searched the dissertation database are either studying for doctorates or working on master's theses. The corollary is that a majority of those accessing PQDT are not doing so. While librarians in this survey were not themselves frequent users of PQDT, the college or graduate school library Website is an "extremely important" influence on accessing the PQDT or ProQuest platforms.

PQDT is likely to be accessed quite specifically with the intention of reviewing dissertations or theses – and often. About one in five users accessed PQDT at least five times in the month immediately prior to the survey. Social sciences, business and education are the three leading disciplines associated with ac-

cessing PQDT. Other important areas are the arts and humanities generally, and medical sciences.

CONCLUSIONS: This survey suggests that there is more to learn about non-student researchers and a need to find ways to provide them access to dissertation research. It also supports the importance of dissertations as primary source material in current research.

Students as Advocates

» **Panelist:** Julia Blixrud, Scholarly Publishing and Academic Resources Coalition (SPARC)

There are many challenges in talking with students about ETDs. Some of the important topics involve those surrounding open access and author rights. Reaching out to students to engage them in these issues can be a complicated process. There are, however, an increasing number of student groups that have become interested in these issues and finding ways to connect with them can lead to increased understanding about the value of ETDs.

The Scholarly Publishing and Academic Resources Coalition (SPARC) has been working with a variety of student groups on open access issues. The techniques in working with students are to find common areas of concern and leverage collaborations. In addition, taking advantage of technologies that appeal to the students increases the reach of the programs.

This paper will provide information on several SPARC student activities. The Right to Research campaign responded to a growing demand from the college student community for tools and resources to express their support for Open Access to research. Students are also interested in Open Educational Resources and SPARC is working with student groups to raise awareness about them as well. The annual SPARKY contest provides awards to innovative videos expressing student perspectives on sharing information. A student open access blog provides a means for students to communicate among themselves.

SPARC's work with students and student groups suggests many students have embraced the concept of open access and are receptive to raising issues they see as impeding their ability to access information. These activities suggest ways others might consider in their work with students and ETDs.

GLOBAL OUTREACH PLENARY PANEL SESSION

BRIDGING THE KNOWLEDGE DIVIDE: EXPANDING GLOBAL OPEN ACCESS

» **Moderator:** Frances O'Brien, Dean, WVU Libraries
» **Friday, June 13 9:30 a.m.–10:45 a.m.**

OceanDocs and Open Science Directory: Two facets of the information policy of UNESCO/IOC-IODE

» **Panelist:** Marc Goovaerts, Information Technology,
Hasselt University Library

The International Oceanographic Data and Information Exchange (IODE) of the Intergovernmental Oceanographic Commission of UNESCO (IOC) has developed, in the past five years, the tools for a modern information policy focused on increasing accessibility of scientific literature in the field of marine science