Emerging Trends in Knowledge Organization and Information Organization Course Curriculum

Selenay Aytac
Long Island University
720 Northern Boulevard
Brookville, NY 11548
selenay.aytac@liu.edu

Margaret E. I. Kipp
University of Wisconsin-Milwaukee
3210 N Maryland Ave
Milwaukee, WI 53211
kipp@uwm.edu

Diane Neal
Victoria L. Rubin
Cristina Pattuelli
Pratt Institute
Ingrid Hsieh-Yee
The Catholic University of America

ABSTRACT
In this panel we will discuss the importance of knowledge organization and information organization in library and information science curricula and the emerging trends both inside and outside of library and information science which will affect the curriculum in coming years.

Keywords
Knowledge organization, information organization, teaching, curriculum, emerging technologies, current trends

INTRODUCTION
Knowledge Organization (KO) or Information Organization (IO) education has long been a vital part of library and information science curricula. ALA core competencies for "Organization of Recorded Knowledge and Information" summarize the major components as: (1) The principles involved in the organization and representation of recorded knowledge and information, (2) The developmental, descriptive, and evaluative skills needed to organize recorded knowledge and information resources, and (3) The systems of cataloging, metadata, indexing, and classification standards and methods used to organize recorded knowledge and information (ALA…,2009). Therefore, early courses in the subject area emphasized cataloging, subject analysis, classification and resource description in depth while emerging trends in KO and IO now encompass courses in metadata creation and the organization of electronic resources. Newer courses in KO and IO intersect with emerging research trends in natural language processing, the semantic web and social networking via the invisible colleges of scholarly communication networks. Some of these courses move beyond the description of resources while maintaining linkages to resource description through subject analysis and metadata creation in order to better educate tomorrow’s library and information professionals.

This panel connects scholars whose research and teaching interests intersect around KO and IO. Each panelist has taught KO or IO courses at both the introductory level and as advanced courses specializing in emerging trends linked to their research interests.

Panelists will consider the following general questions:

- When many libraries engage in the practice of copy cataloging with only minimal intervention from a librarian or library technician, what is the importance of teaching KO and IO principles in library and information schools?
- What are the emerging trends in KO and IO both within the library and information science context?
- How can KO and IO instructors merge both traditional and emerging trends in the course curriculum in order to prepare library and information professionals for the future?
- How can we better facilitate language technologies for KO and IO courses?
- What are the major components of a KO course for innovative information services?
- What are the new topics employed in KO or IO curriculum by ALA accredited schools of LIS?

PANEL STYLE
The panel will last 1.5 hours. Panelists will present their research and teaching focus and will give a short review of their research and teaching work in this area. Each panelist will raise questions relevant to the topic of the panel which will motivate the audience to consider the future of teaching in KO and IO curriculum and how this can and should intersect with emerging trends in research and practice.
PANELLISTS

Balancing AACR2 and RDA coverage, questioning the need for teaching original cataloging

Diane Neal <dneal2@uwo.ca> is an assistant professor in the Faculty of Information and Media Studies at The University of Western Ontario, the past chair of ASIS&T's Classification Research Special Interest Group (SIG CR), and the chair of the ASIS&T 2011 Annual Meeting's Knowledge Organization Track.

Building on her previously developed analytical framework of determining core competencies for technology in libraries, Dr. Neal will raise controversial questions and encourage productive discussion among the panelists and audience members. Topics for consideration will include the following:

- In light of the fact that the number of topics vital to librarians' career preparation continues to increase, what are the most important things to teach LIS students in the knowledge organization curriculum?
- Why do LIS students need to learn traditional cataloging and classification skills such as MARC coding, DDC number building, and LCSH assigning at a time when third parties provide so many bibliographic records for downloading?
- With RDA implementation facing libraries, but with AACR2 still used in practice, how do LIS programs teach both?
- Given the number of advertised metadata, resource discovery, and digital collection librarian positions, how do we incorporate database administration, taxonomy development, and XML-based metadata schema utilization into an already packed LIS curriculum?

Teaching Linked Data and the Semantic Web to MLIS Students

Margaret E. I. Kipp <kipp@uwm.edu> is an Assistant Professor and member of the Information Organization Research Group, School of Information Studies, University of Wisconsin-Milwaukee. Dr. Kipp has a background in computer science and worked as a programmer/analyst and a systems librarian.

The growth of the web has been paralleled by the increasing importance of metadata both on and off-line. Metadata creation has become an important part of library and information science, which is demonstrated by the increasing number of jobs advertising positions for metadata/cataloging librarians. Metadata plays an important role in the Semantic Web and Web 2.0 which are both backed by more or less complex metadata schemas. While the web itself is only lightly organized, the Semantic Web takes a more rigorous approach to information organization.

Transferring to semantic web style RDF/XML metadata would allow librarians to connect their well described resources to the emerging resources of the Semantic Web and web 2.0. Because of the importance of the library in the public sphere, it is vital that library resources be interconnected with web resources as users most often begin their searches on the web rather than at the library. MLIS students need a firm grasp of the interconnections between information organization and information technology both on the web and in the library.

This section of the panel will report on the scope, coverage and results of teaching a course on linked data in libraries to a group of MLIS students which encouraged them to explore aspects of information organization through experimenting with library and non-library metadata and metadata creation tools, semantic web and web 2.0 tools, metadata databases and information retrieval tools and the creation of active and passive web pages and scripts for library mashups. (http://791linkeddata.blogspot.com/)

Language Technologies for Knowledge Organization

Victoria L. Rubin <vrubin@uwo.ca> is an Assistant Professor at the Faculty of Information and Media Studies and the Principal Investigator of the Language and Information Technologies Research Lab at the University of Western Ontario, London, Canada.

Humans communicate in a predominantly verbal mode. We transfer our ideas in words. We record, store and manipulate them as texts ranging from literary masterpieces, works of science, and presidential speeches to trivial instant messages and tweets. Textual data, broadly defined, are prone to problematic properties that impede data accessibility, comprehension, and meaningful use (Table 1, A column). Corresponding conceptual solutions are possible (Table 1, B). For instance, lengthy texts can be shortened, English texts – translated to Russian. Corresponding functional roles are filled by language technologies such as Automatic Summarization and Machine Translation (Table 1, C). Texts can be processed, computed, and otherwise manipulated to offer partial intelligent solutions to complement human abilities.

<table>
<thead>
<tr>
<th>Textual Data Properties</th>
<th>Conceptual Solutions</th>
<th>Technologies Performing Functional Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too many</td>
<td>Select</td>
<td>Information Retrieval, Question Answering</td>
</tr>
<tr>
<td>Often too long</td>
<td>Shorten/digest</td>
<td>Automatic Summarization and Indexing</td>
</tr>
<tr>
<td>Often contradictory</td>
<td>Reconcile</td>
<td>Multi-Document Summaries, Opinion Mining</td>
</tr>
<tr>
<td>Lack structure</td>
<td>Structure</td>
<td>Layered Natural Language Processing (NLP) analyses that rely on linguistic insights or probabilities (Liddy, 2003)</td>
</tr>
</tbody>
</table>
Knowledge organization education in ALA-accredited schools of library and information science

Cristina Pattuelli <mpattuel@pratt.edu> is an Assistant Professor at the School of Information and Library Science at the Pratt Institute, New York. Dr. Pattuelli holds a Ph.D. in Information and Library Science from the University of North Carolina at Chapel Hill, as well as advanced degrees in Philosophy and Cultural Heritage Studies from the University of Bologna, Italy.

Dr. Pattuelli will discuss the results of a recent investigation she conducted on the current state of knowledge organization education in ALA-accredited schools of library and information science. The study examined the subject content of knowledge organization courses taught in 57 ALA-accredited LIS programs and was based on a pilot study conducted on the ten top-ranked ten LIS schools. Approximately 2,000 course readings of introductory-level knowledge organization courses were analyzed and indexed. Results indicated that traditional bibliographic methods and practices remain at the core of knowledge organization courses. Findings also showed that metadata has become a central component of course content and new topics from information architecture to markup languages and semantic web are becoming integral part of introductory-level knowledge organization education.

These results offer insights into the state of a discipline in a transitional phase between traditional practices and emerging trends in information discovery and access. The study provides the context for discussing design requirements of knowledge organization curricula and, in general, offers an opportunity to further the conversation about whether knowledge organization education is responding to the evolving areas of expertise required of today’s information professionals.

A Holistic Approach to Information/Knowledge Organization in the 21st Century

Ingrid Hsieh-Yee <hsiehyye@cua.edu> is Interim Dean and Professor of the School of Library and Information Science at The Catholic University of America. Dr. Hsieh-Yee won research awards from the American Society for Information Science and Technology (ASIS&T) and the Association for Library and Information Science Education (ALISE).

Information/knowledge organization is the cornerstone of the library and information profession. Instead of focusing on tactical efforts such as encoding data in a particular way or applying a cataloging standard, the presentation will emphasize a holistic approach to organizing information and knowledge in order to support research, decision making, and information use effectively in the digital age. The presenter will use the unique information environment of the 21st century as the context to explain why information users, information, and technology are the three areas information/knowledge organization educators need...
to cover in their curriculum. Emerging issues in these three areas will be highlighted and strategies to address these issues will be discussed to help the profession stay competitive and relevant. While information and knowledge organization practices vary by the subject domain in which such practices are applied, educators will do well to focus on the fundamentals and enrich students’ learning experience by applying the basics of information organization in selected contexts.

References:

