Report on NKOS/CENDI Workshop

Marcia Zeng

Presenting a Jointly-sponsored Workshop

NEW DIMENSIONS IN
KNOWLEDGE ORGANIZATION SYSTEMS

Sponsored by CENDI and the Networked Knowledge Organization Systems Working Group
Hosted by The World Bank

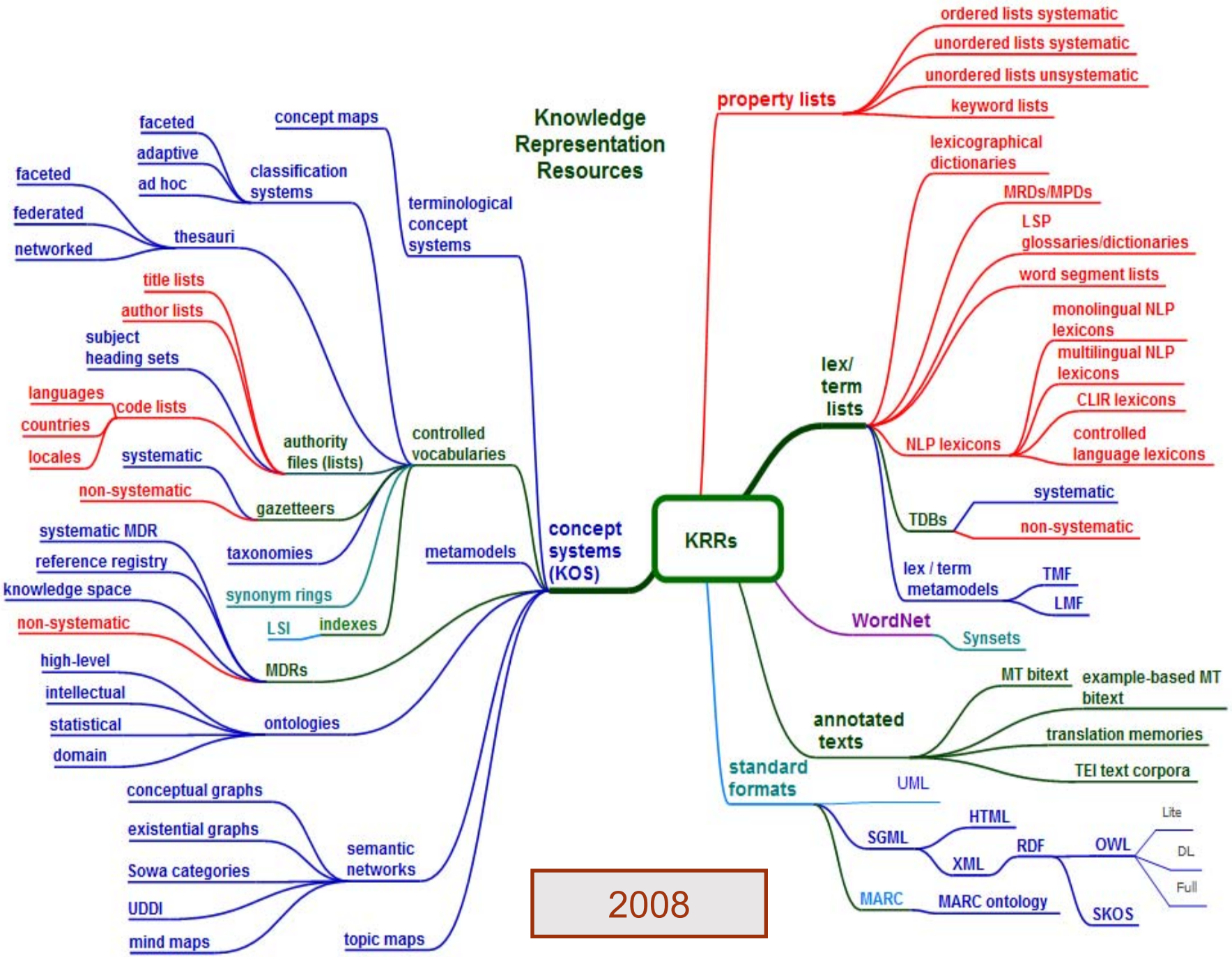
The World Bank, Washington, DC
Board Room, 13th Floor
September 11, 2008

http://nkos.slis.kent.edu/2008workshop/NKOS-CENDI2008.htm

Typology for KRRs

Knowledge Representation Resources

Sue Ellen Wright
Kent State University, Kent, Ohio
NKOS-CENDI September 2008


Knowledge Representation Resources
KRRs
concept systems (KOS)
terminological concept systems
concept maps
classification systems
faceted
adaptive
ad hoc
thesauri
faceted
federated
networked
controlled vocabularies
authority files (lists)
title lists
author lists
subject heading sets
code lists
languages
countries
locales
gazetteers
systematic
non-systematic
taxonomies
synonym rings
indexes
LSI
metamodels
MDRs
systematic MDR
reference registry
knowledge space
non-systematic
ontologies
high-level
intellectual
statistical
domain
semantic networks
conceptual graphs
existential graphs
Sowa categories
UDDI
mind maps
topic maps
property lists
ordered lists systematic
unordered lists systematic
unordered lists unsystematic
keyword lists
lex/ term lists
lexicographical dictionaries
MRDs/MPDs
LSP glossaries/dictionaries
word segment lists
NLP lexicons
monolingual NLP lexicons
multilingual NLP lexicons
CLIR lexicons
controlled language lexicons
TDBs
systematic
non-systematic
lex / term metamodels
TMF
LMF
WordNet
Synsets
annotated texts
MT bitext
example-based MT bitext
translation memories
TEI text corpora
standard formats
UML
SGML
HTML
XML
RDF
OWL
Lite
DL
Full
MARC
MARC ontology
SKOS
2008

Colors

- **Blue: systematic, represents shallow to deep semantic structures**
- **Red: non-systematic, primarily lists with random or conventional (e.g., alphabetical) ordering principles**
- **Green: hybrid superordinate nodes with both systematic and non-systematic children; texts of various kinds**
- **Purple: WordNet: internally hybrid system; shallow systematics, lexicographical approach**

"New Dimensions in KOS"

CENDI/NKOS Workshop

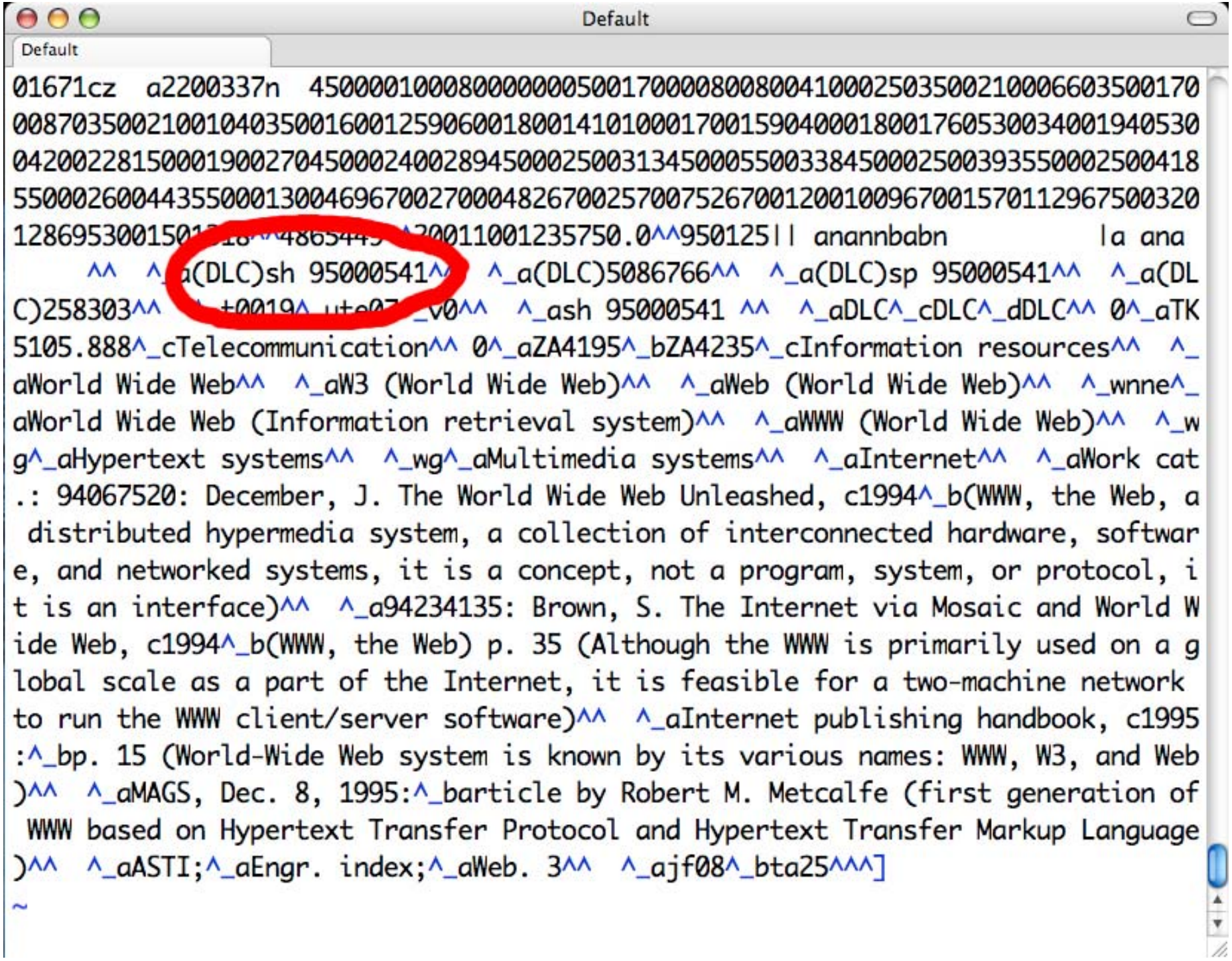
September 11, 2008
Washington, DC, USA

SKOS: New Dimensions in Interoperability

Ed Summers

Jon Phipps

An international conference to share and advance knowledge and experience about standards; the technologies that build upon them, and implementation experiences.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C)258303^^ ^_ash 95000541 ^^ ^_aDLC^_cDLC^_dDLC^^ 0^_aTK
5105.888^_cTelecommunication^^ 0^_aZA4195^_bZA4235^_cInformation resources^^ ^_
aWorld Wide Web^^ ^_aW3 (World Wide Web)^^ ^_aWeb (World Wide Web)^^ ^_wnne^_
aWorld Wide Web (Information retrieval system)^^ ^_aWWW (World Wide Web)^^ ^_w
g^_aHypertext systems^^ ^_wg^_aMultimedia systems^^ ^_aInternet^^ ^_aWork cat
.: 94067520: December, J. The World Wide Web Unleashed, c1994^_b(WWW, the Web, a
distributed hypermedia system, a collection of interconnected hardware, softwar
e, and networked systems, it is a concept, not a program, system, or protocol, i
t is an interface)^^ ^_a94234135: Brown, S. The Internet via Mosaic and World W
ide Web, c1994^_b(WWW, the Web) p. 35 (Although the WWW is primarily used on a g
lobal scale as a part of the Internet, it is feasible for a two-machine network
to run the WWW client/server software)^^ ^_aInternet publishing handbook, c1995
:^_bp. 15 (World-Wide Web system is known by its various names: WWW, W3, and Web
)^^ ^_aMAGS, Dec. 8, 1995:^_barticle by Robert M. Metcalfe (first generation of
WWW based on Hypertext Transfer Protocol and Hypertext Transfer Markup Language
)^^ ^_aASTI;^_aEngr. index;^_aWeb. 3^^ ^_ajf08^_bta25^^^]
~

http://lcsh.info/sh95000541#concept

LCSH: World Wide Web

http://lcsh.info/sh95000541#concept

Google

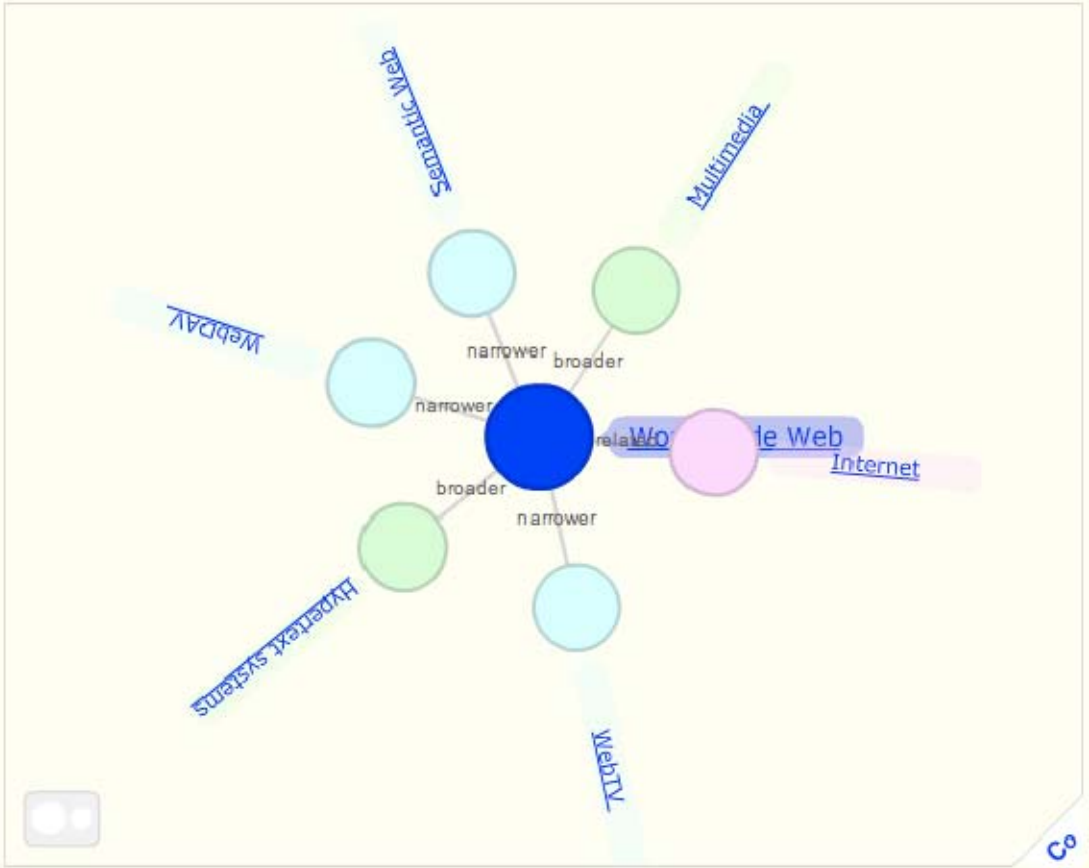
World Wide Web

Use For: W3 (World Wide Web), WWW (World Wide Web), Web (World Wide Web), World Wide Web (Information retrieval system),

Broader Terms: Hypertext systems, Multimedia systems,

Narrower Terms: Semantic Web, WebDAV (Standard), WebTV (Trademark),

Related Terms: Internet,



Editorial Notes:

- 94234135: Brown, S. The Internet via Mosaic and World Wide Web, c1994 (WWW, the Web) p. 35 (Although the WWW is primarily used on a global scale as a part of the Internet, it is feasible for a two-machine network to run the WWW client/server software)
- ASTI; Engr. index; Web. 3
- Internet publishing handbook, c1995: p. 15 (World-Wide Web system is known by

Transferring data from mochibot.com...

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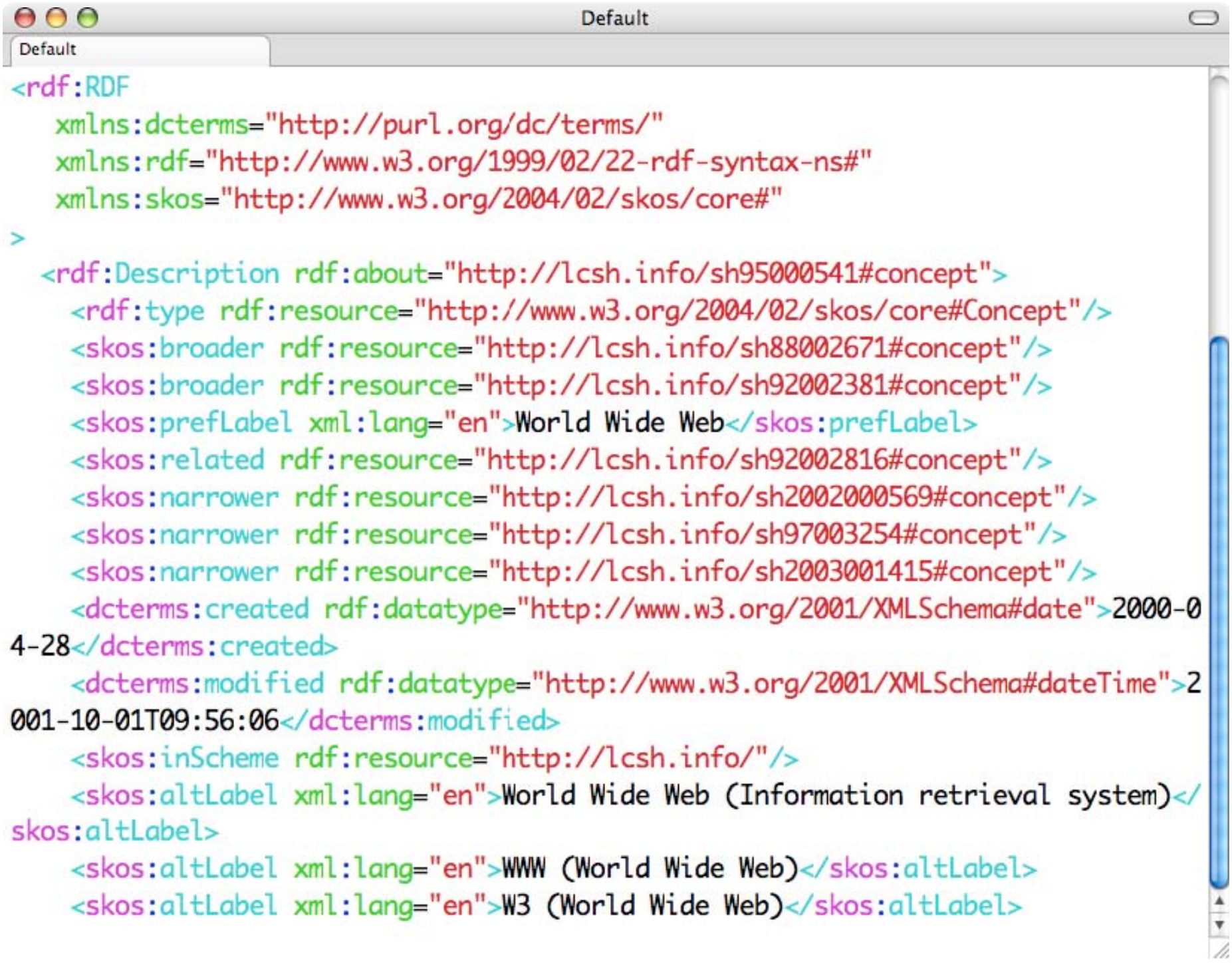
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<skos:altLabel xml:lang="en">W3 (World Wide Web)</skos:altLabel>

NKOS Networked Knowledge Organization Systems

Knowledge Organization Systems and Search

Thursday, 11 September 2008

10:45 – 11:15 AM EDT

Presented by Jay Ven Eman, Ph.D., CEO

Access Innovations, Inc. / Data Harmony – woman-owned, small business

505.998.0800 / www.accessinn.com / www.dataharmony.com

j_ven_eman@accessinn.com

GSA Advantage! www.gsaAdvantage.gov

Access Innovations [GS-35F-0820N]

Experiences in Mapping Multiple Vocabularies in Agriculture

Lori Finch
National Agricultural Library
lfinch@nal.usda.gov

Presented at the joint CENDI / NKOS event at the World Bank
"New Dimensions in Knowledge Organization Systems"
September 11, 2008

LCSH to NALT mapping project

- Objectives:
  - Alignment of LCSH to NALT so that there is an automated assignment of NALT to existing and new cataloging records.
  - Creation of NALT MARC authority records with links to LCSH and make this file available on the thesaurus website.
  - Creation of SKOS file with the LCSH-NALT alignment using SKOS mapping properties

Folksonomies and Taxonomies: Where the Two Can Meet

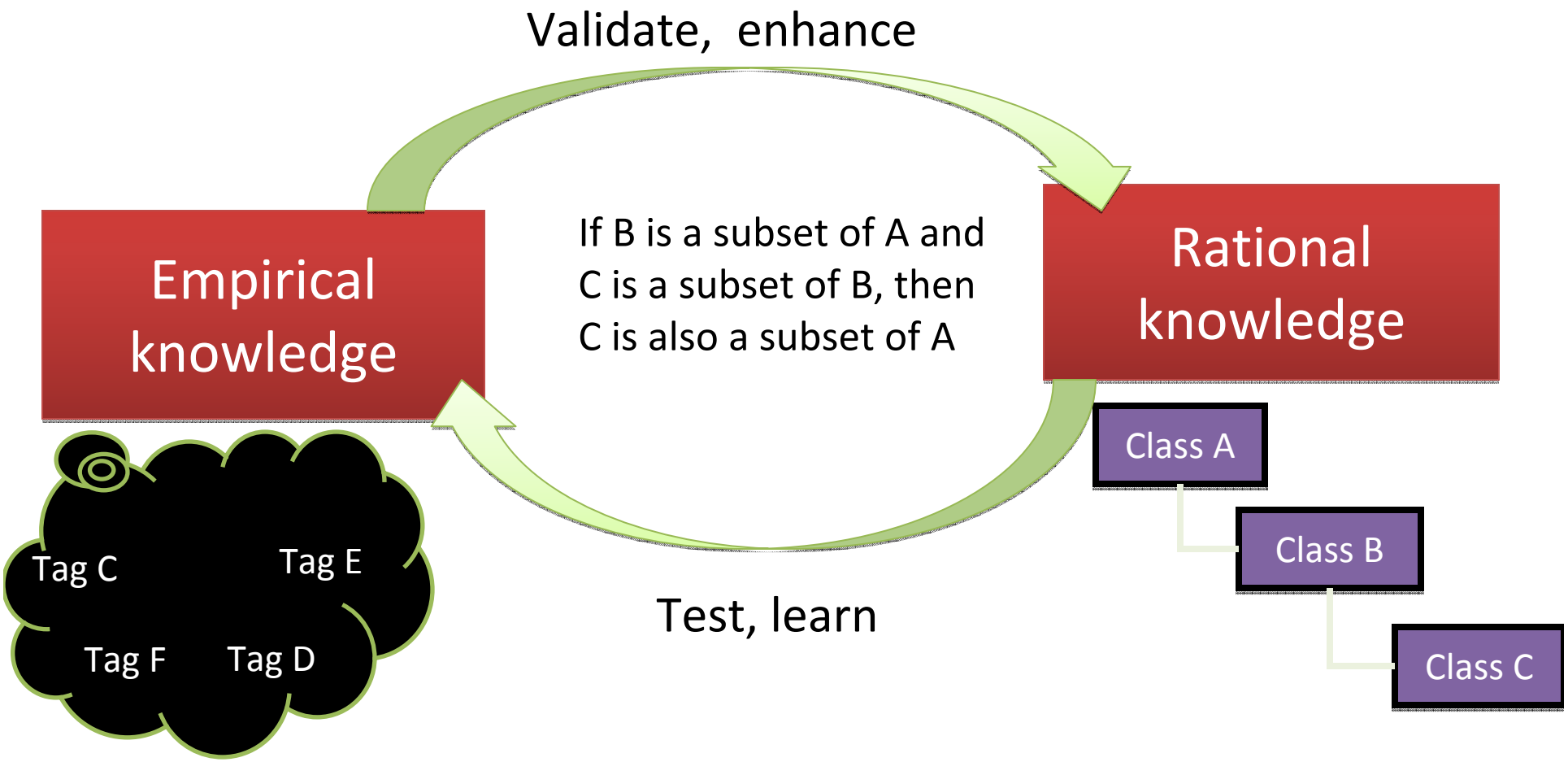
Jian Qin
School of Information Studies
Syracuse University

NKOS Workshop
September 11, 2008, Washington, DC

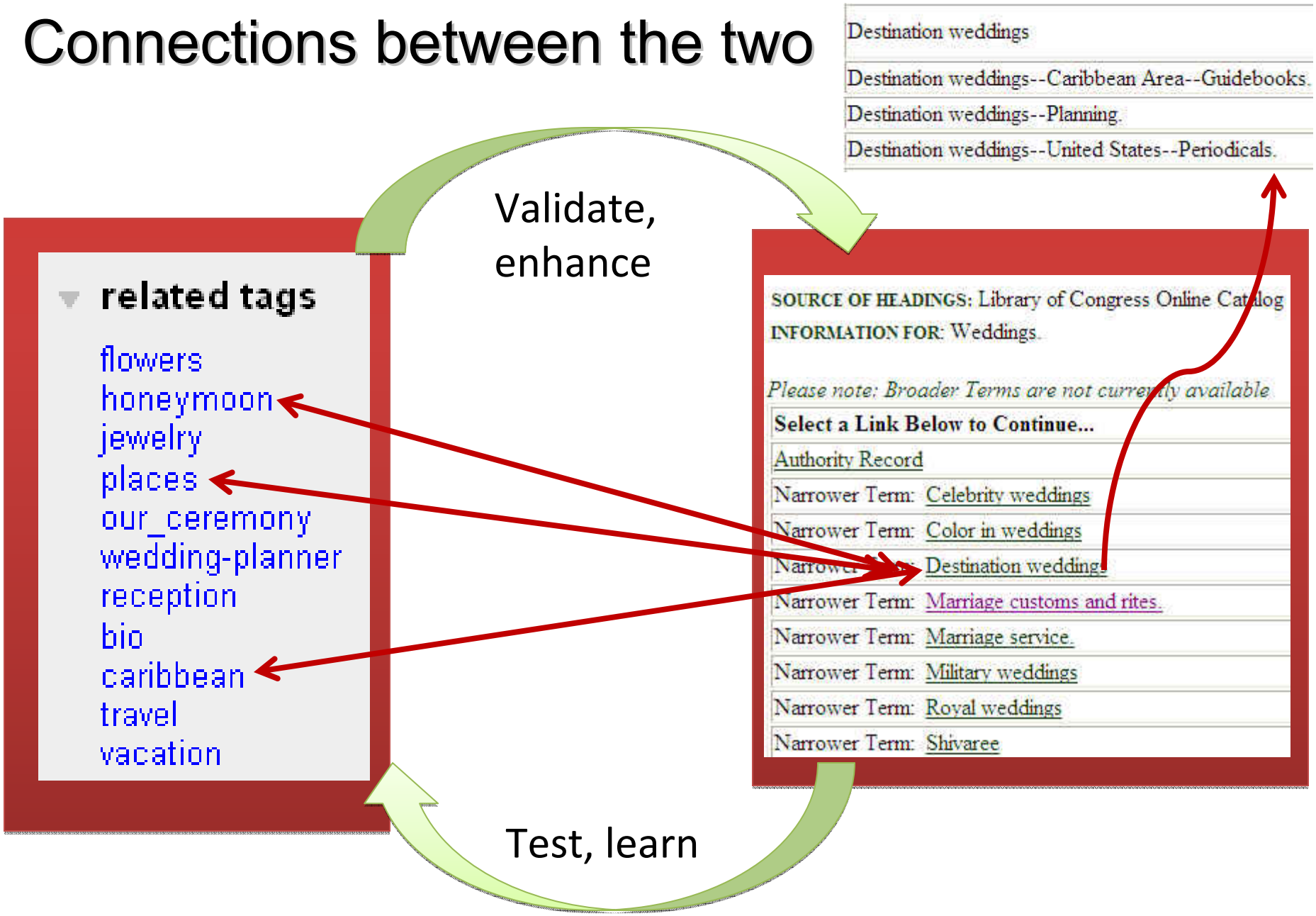
Where differences lie…

- Semantics in social spaces (empirical knowledge)
  - Empirical representation of information objects
  - *A posteriori* knowledge dependent upon sense experience
  - Contextually sophisticated
  - Covert, unorganized concepts hiding in the vast tag mines
- KOS (rational knowledge)
  - Rational representation of knowledge in information objects
  - Top-down, controlled approach
  - Formal expressions of concepts
  - Intellectual and deductive relationships among concepts

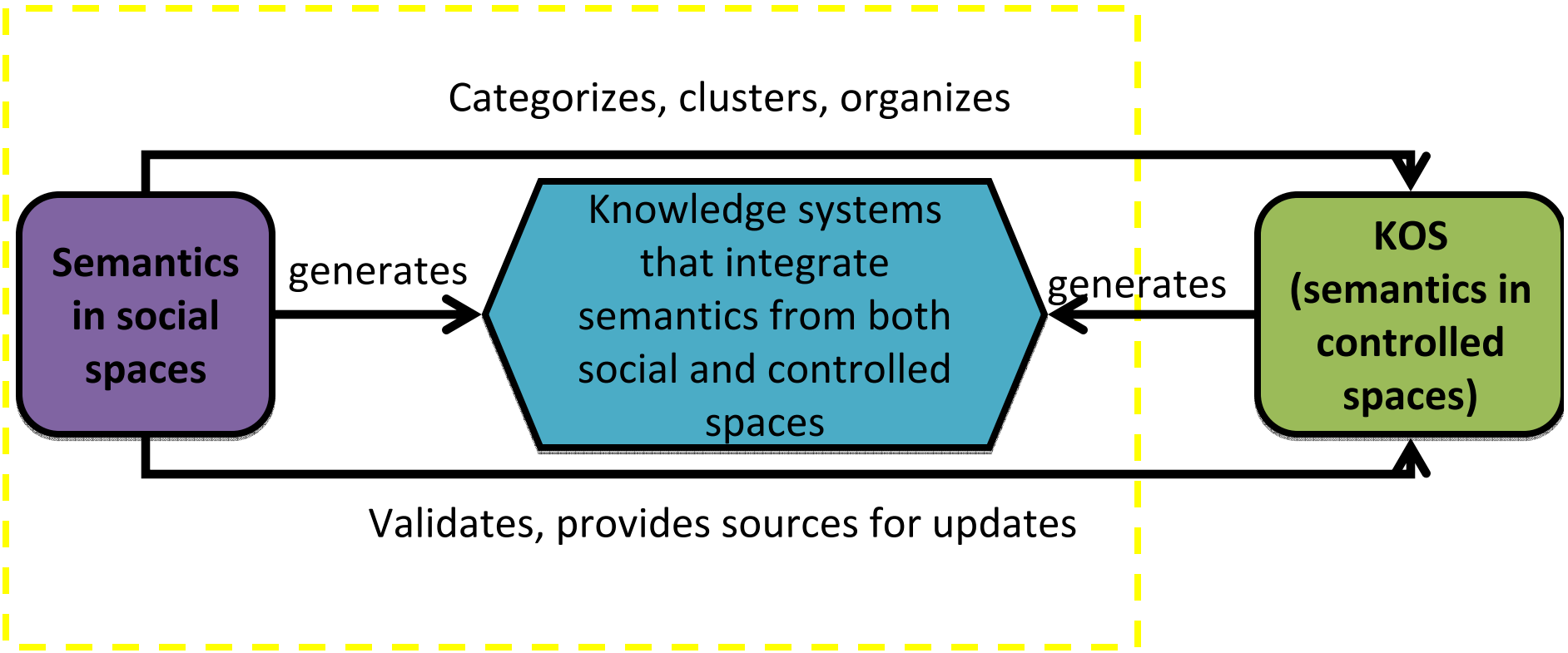
How the two can benefit from one another



Connections between the two



Where the two types of semantics meet

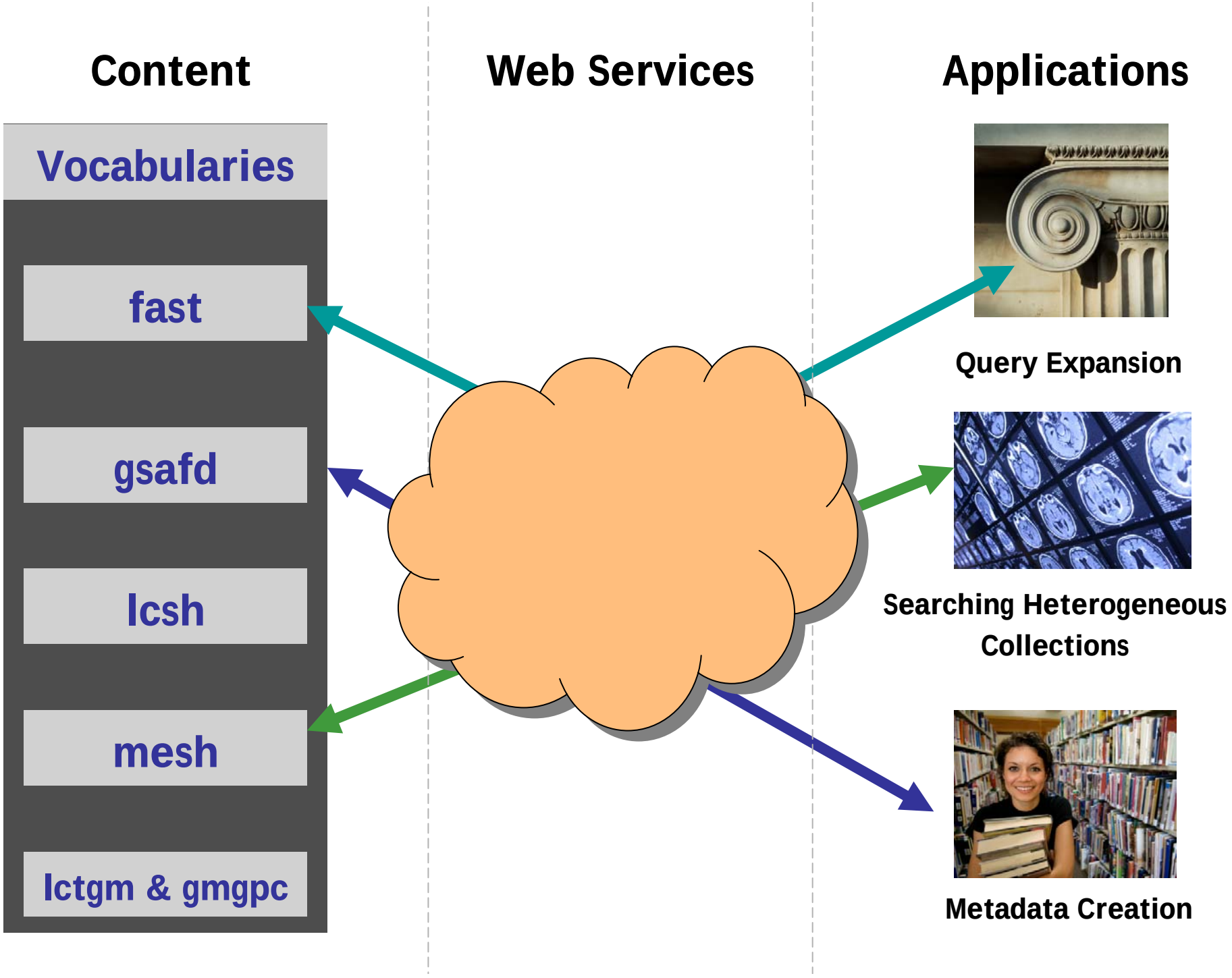


Some examples…

Next slide

Terminology Services

Diane Vizine-Goetz
Senior Research Scientist
OCLC Research


Content
Web Services
Applications
Vocabularies
fast
gsafd
lcsh
mesh
lctgm & gmgpc
Query Expansion
Searching Heterogeneous Collections
Metadata Creation

Semantic MediaWiki
A Tool for Collaborative Vocabulary Development

Harold Solbrig

Division of Biomedical Informatics

Mayo Clinic

Outline

- MediaWiki – what it is, how it works
- Semantic MediaWiki – MediaWiki meets the Semantic Web
- Vocabulary Development in Semantic MediaWiki

[Online presentation only]

INTRODUCTION
KOS & INFORMATION STRUCTURES

I am not a member of the KOS community, but I work in a nearby field, which I call information structures. Information is a broader term than knowledge, because it includes stuff like laws, lies and ordinary conversations. Unlike organization, which is created, structures are naturally occurring systems of relations. However, organization of knowledge is often based on selecting a relational structure. The scientific question I am pursuing is “what are all the important ways in which pieces of information are related?”

What follows is a sketch of a case study plus a few sentences about my general theory of information structure. The case study is something we call OSTI’s Science Word Web. It is presently used to help people find search terms, but we will look at its beautiful structure, which is rather like a sailing ship. This is all very introductory so anyone who wants to know more should contact me personally.

David Wojick
WojickD@osti.gov

Open Ontology Repository Initiative

Frank Olken

Lawrence Berkeley National Laboratory
National Science Foundation
folken@nsf.gov

What is the OOR Initiative?

- **Open** = accessible, minimal intellectual property encumbrances on the ontologies, preferably open source code for the repository
- **Ontology** = formal conceptualization (degree of formalization may vary: frames, graphs (RDF), logic (OWL-DL, Common Logic, ...))
- **Repository** = collection of ontologies, related materials, support for storage, retrieval, integration, etc.
- **Initiative =** group/effort to create OOR

Goals of OOR Initiative

- To promote global use and sharing of ontologies by:
  - Establishing a hosted registry-repository;
  - Enabling open, federated, collaborative ontology repositories, and
  - Establishing best practices for expressing interoperable ontologies and taxonomies in repositories.

Semantic Interoperability in caBIG™ Leveraging Vocabulary, Metadata Registries and Models

Denise Warzel
Associate Director, Core Infrastructure Program
NCI Center for Biomedical Informatics and Information Technology (CBIIT)

NCI Extension: 11179 Grammar + Concepts