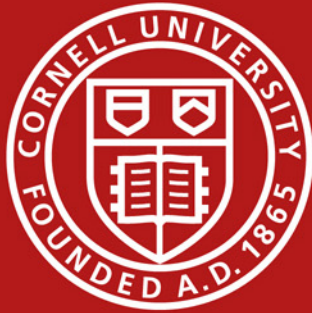




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Catalogers Wanted: Metadata Practice in the Web Era

Marty Kurth

NELINET Bibliographic Services Conference

November 18, 2005



This presentation is based on:

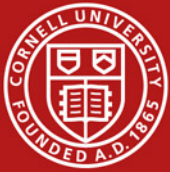
Kurth, Martin. "Found in Translation: Four Characteristics of Metadata Practice." In *Metadata and the Digitization of Information: A Festschrift in Honor of Thomas P. Turner*, edited by Elaine Westbrook and Keith Jenkins. Lanham, MD: Scarecrow Press. (In publication.)
<http://www.library.cornell.edu/cts/metadataservices/kurth-translation-20050408.pdf>



Disclaimer

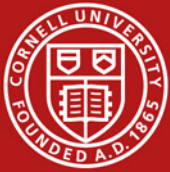
This presentation is not about metadata!
("Darn!")

It's about metadata practice, i.e., the work,
not the stuff we work with.
("I'm paying for this?")



Why?

- To identify what metadata practitioners contribute to facilitating the use of information on the Web
- To help catalogers relate metadata practice to cataloging practice



What I'll cover

- Typical approaches to metadata work
- Metadata practitioners' responsibilities
- Primary role that practitioners perform
- Central contribution of practitioners to scholarly communication and collaboration



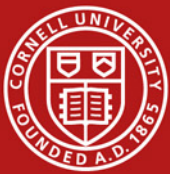
The context for all this

Because what I'll say is shaped by my experience of working with metadata for Web resources in libraries, I'll briefly give the historical context of that experience



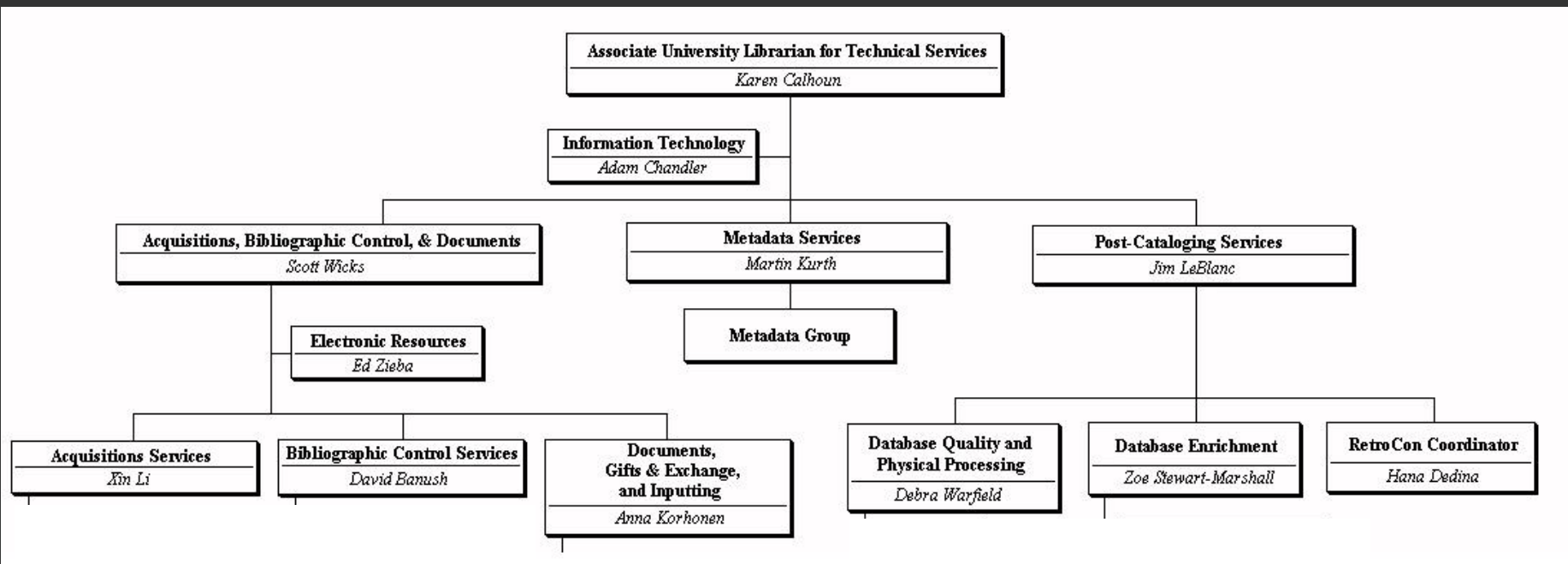
From "CUL Goals & Objectives 2002-2007"

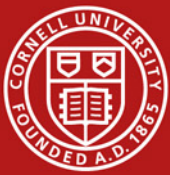
II.3. Establish and operate a "consulting to production" metadata service capable of producing metadata in a variety of formats to organize, manage, and preserve collections over time and to enable effective discovery and use.



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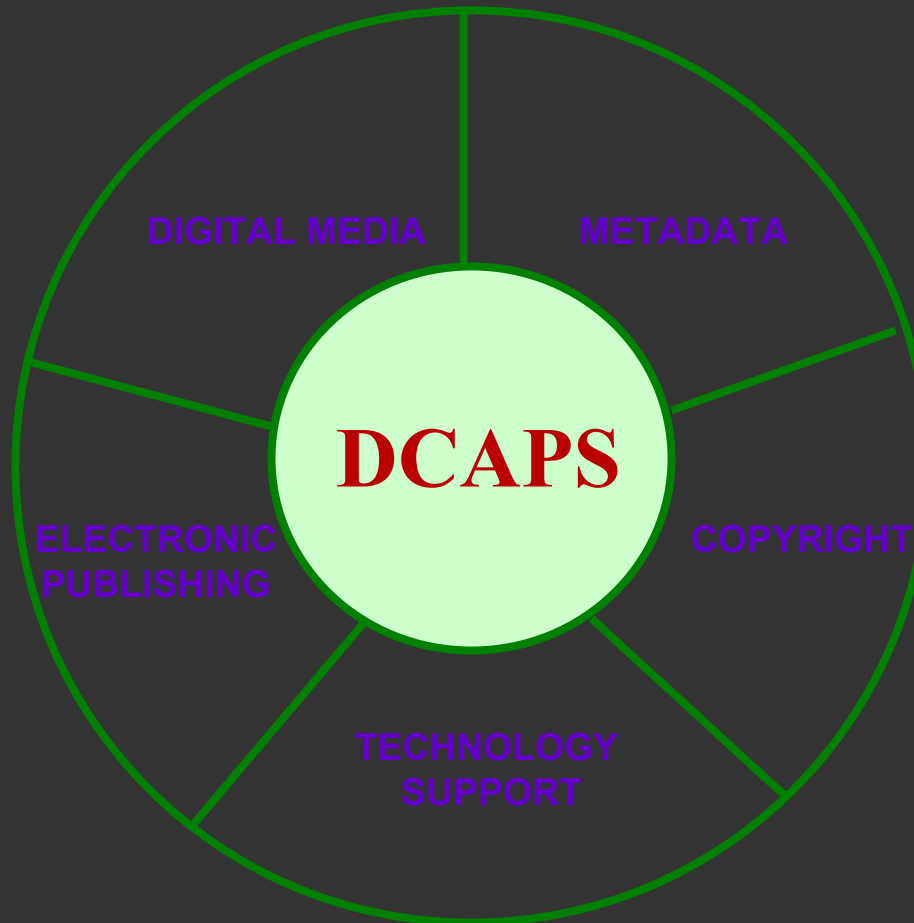
CTS formed Metadata Services by reallocation in 2002





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The DCAPS service model



DCAPS: Digital Consulting & Production Services



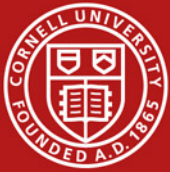
The Metadata Services mission

Metadata Services provides metadata **consulting, design, development, production, and conversion** services to Cornell's faculty, staff, and community partners to increase the value of their digital resources.



Metadata defined for our clients

Metadata organizes information about digital resources, including titles, authors, keywords, format, versions, and rights. It increases the value of digital resources by making them easier to access, use, share, and re-purpose.



Given this context . . .

Let's discuss metadata practice in terms of the metadata that practitioners design, develop, produce, and convert to other formats in order to manage digital resources and make them accessible to end users.



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Metadata practice approaches metadata in aggregates



Practitioners work in the context of

- Projects
- Collections
- Services
- Communities of practice



NISO Framework of Guidance for Building Good Digital Collections

"Objects, metadata, and collections must now be viewed not only within the context of the **projects** that created them but as building blocks that others can reuse, repackage, and build **services** upon."



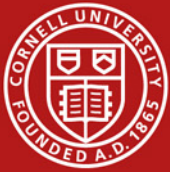
Metadata work scenarios first consider

- "Project" goals, requirements, user needs
- Scholarly communities the effort will serve
- Other initiatives serving those communities
- Interoperability mechanisms that may apply



Which means that . . .

Practitioners seek to understand the big picture before they design the parameters for the structure and content of individual metadata records

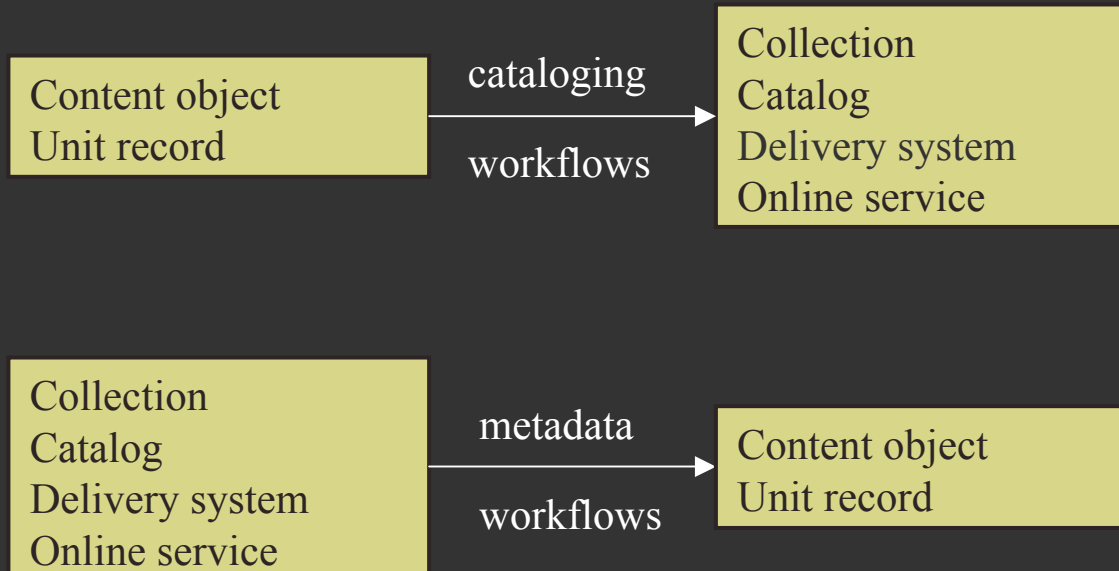


This approach differs from most cataloging, where . . .

- a cataloger considers the item in hand first
- content and encoding standards are clear
- creation tools and delivery mechanisms are pre-determined
- documentation is widely shared
- there is an established community that shares theory and practice



The two approaches contrasted





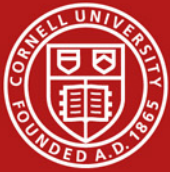
Why is this important?

Cataloging skills still apply in a metadata environment because cataloging and metadata workflows are mirror images of one another.



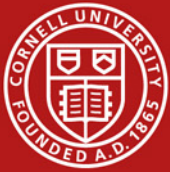
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Metadata practice
comprises interpersonal,
informational, and
operational layers



Social aspects of metadata work

- Practitioners serve on teams that include "scholars, information professionals, and technologists" (Greenstein and Thorin)
- Metadata design and development are highly consultative
- Interactions involve advocacy, negotiation, and committing resources



Because of these social aspects,
metadata practitioners perform multiple
roles in project teams . . .

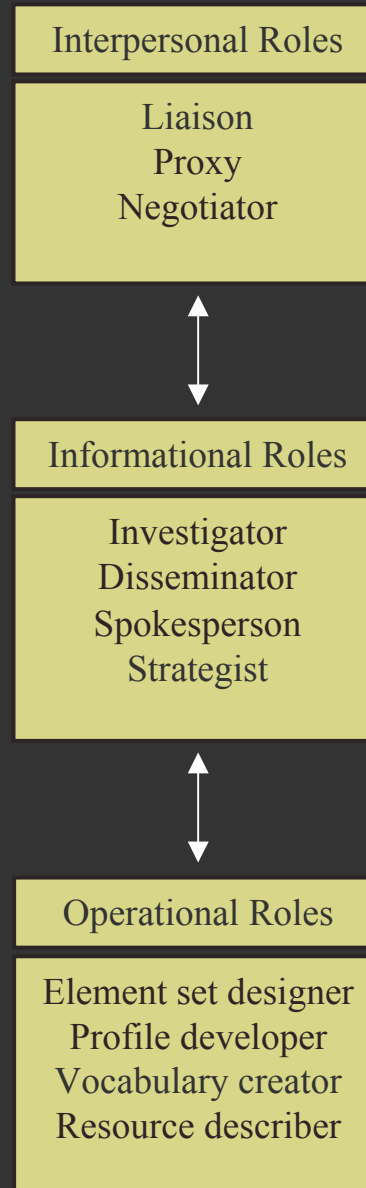
. . . and metadata practitioners' roles
are similar to managerial roles:

interpersonal, informational, decisional



The metadata practitioner's organizational responsibilities

(from Mintzberg by way of Choo)





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Doesn't everyone on a team do that?

What's unique about metadata work?



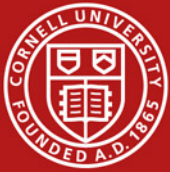
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Metadata practice
specializes in cross-
community translation



How "communities of practice" function

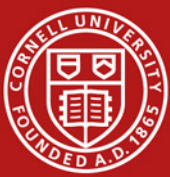
- Members consult community history to make meaning
- Group knowledge yields competent members
- Group requires that members share information
- Group bestows identities and status on members



We know the drill

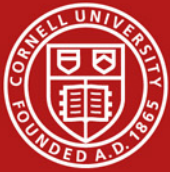
Policies, procedures, standards,
rules, codes, reference sources,
meetings, workshops, associations,
conferences, awards, and . . .

. . . acronyms!



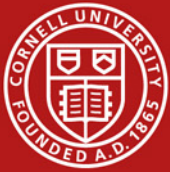
But . . .

- Shared culture and language make it hard to discuss group work outside the group
- Group's conceptual framework and language create communication boundaries
- Communicating outside the group requires recoding
- Communicating across boundaries requires learning the language of the target group



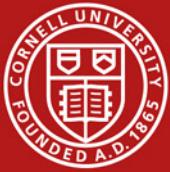
Boundary spanning (Tushman and Scanlan)

- Gather information from one side and translate it to match the culture and language of the other
- Develop formal and informal information sources inside and outside the community
- Use internal and external sources to support translation work



Sound familiar?

- Reconcile searches that subject experts want with system limitations and interoperability requirements
- Investigate controlled vocabularies that relate to natural language terms
- Develop element-set profiles and local vocabularies that meet user needs and delivery system constraints
- Map and transform local metadata for harvesting and reuse



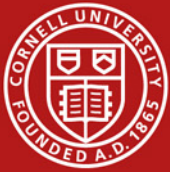
In other words, metadata practice . . .

- relays messages among communities to build systems that support community work
- actively engages with the languages of collaborators' communities
- helps communities make meaning
- **regularizes community terminology** (intra-)
- **map community terminology to other communities** (inter-)



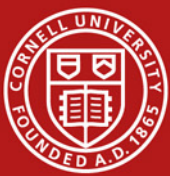
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Metadata practice's
semantic and syntactic
translations support
interoperability



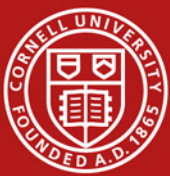
Metadata is modular (in creation and use)

- ISBN, AACR, LCCN, LCSH
- descriptive, technical, preservation, rights



Metadata work's central operations ("It's all translation")

- Mapping – establishing relationships between equivalent elements in different schemes
- Transformation – designing and implementing scripts/tools to move mapped metadata between schemes
 - as in translating the language of a resource into ISBD, MARC 21, and subject vocabs



Mapping and transformation operate on

- Semantics – the meaningful content that metadata conveys
- Syntax – the structure that expresses that content

650 0 \$a Insurgency \$z Somalia \$x History
\$y 20th century.

<term>Insurgency--Somalia--History--20th
century</term>



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What do mapping and transformation have to do with **metadata aggregates**, **layers of metadata responsibilities**, and **cross-community translations**?



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NISO Framework of Guidance for Building Good Digital Collections

Digital objects, metadata, and collections are **building blocks** for reuse and integration



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We create "boundary objects" to connect the blocks (Bowker & Star)

We actively engage with user communities to build tools.

The tools we create influence the work that user communities perform.



Or, globally, on the surface of the Web . . .

We map and transform metadata to facilitate multidisciplinary research and instruction.

We create tools that support the semantic and syntactic interoperability of Web resources.



Conclusion: Implications for libraries

- Wholly manual processes do not scale
- Metadata workflows benefit from practitioners with complementary skills
- Opportunities lie in integrating automated and manual operations