Chapter 1 Supplement

Introduction to Metadata for Digital Collections

Questions for Review, Study, or Discussion

1. What does the term *metadata* encompass and what type and context of metadata does this book focus on?
2. How would you define *metadata* in a few sentences if you had to explain it to a colleague, a fellow student, a friend, or a family member? It's not easy, especially for people not in the field as either practitioners or students!
3. What definitions of metadata have some writers given? What do they have in common with each other?
4. The book gives examples of metadata found in Microsoft Word documents, iTunes, digital photographs, library catalogs, and online digital collections. What characteristics do all of these examples all have in common? What is different among them? The text lists three especially important common characteristics. Can you think of others?
5. The basic components of metadata are properties, values, statements, and records. Can you explain and give examples of each?
6. What is a digital collection? What are some key characteristics of a digital collection? What other terms are sometimes used synonymously for the term *digital collection* in current literature and practice?
7. Do you have any favorite digital collections of your own or that you have worked on yourself? If not, do some exploring and find one or two digital collections that reflect some diverse subject matter, resource types, genres, and formats.
8. One of the most import points, and a primary focus of the book, concerns what metadata *does*. What functions does descriptive metadata serve for users of digital collections? What methods of information retrieval does it support? One of many types of functionality supported by metadata is faceted navigation, browsing, or searching. Explain what that means.
9. Metadata is often categorized into what three primary types? What are the common sub-types of one of these primary types? What are the basic characteristics of each type of metadata, and what functions does each provide for users?
10. Why are metadata standards important? In the broadest sense, what can the term *standards* be understood to encompass? What is the most common use of the term *standards* in the wider professional metadata community? In actual practice, do most digital collection implementations use (a) formal national/international standards, (b) informal local standards and specifications, or (c) a combination of both?
11. The book uses a common fourfold typology of metadata standards. What are the four types, what are their characteristics, and what are some well-known examples of each? Do you have experience working with one or more of these types of standards, either those listed or others?
12. Designing a metadata scheme and creating metadata for digital resources is one part of a larger process of creating and implementing an online collection. What aspects of this larger process does this chapter include? Do you have personal experience with any of these? If you currently work with digital collections or in an institution that creates them, who within your organization does which of these activities?
13. What are some common "out-of-the-box" software solutions for digital collection creation and management? Do you have experience working with any of these?

14. What distinction does the text make between *metadata design* and *metadata creation*? What six components does it list as parts of the process of metadata scheme design? Who might be responsible for metadata creation? Do metadata creators always work directly with metadata in its encoded form or typing in all the coding by hand?
15. What points does the text make about metadata sharing, harvesting, and aggregation in relation to metadata design?

Recommended Readings and Resources for Reference or Further Study

- Gilliland, Anne J. 2008. "Setting the Stage." In *Introduction to Metadata*. 2nd ed., version 3.0, edited by Murtha Baca, 1–19. Los Angeles: Getty Research Institute. http://www.getty.edu/research/publications/electronic_publications/intrometadata/setting.html.
- Coyle, Karen. 2005. "Understanding Metadata and its Purpose." *Journal of Academic Librarianship* 31, no. 2 (March): 160–163. http://www.kcoyle.net/jal-31-2.html.
- Chopey, Michael A. 2005. "Planning and Implementing a Metadata-Driven Digital Repository." *In Metadata: A Cataloger's Primer*, edited by Richard P. Smiraglia, 255–287. Binghamton, NY: Haworth Press.
- NISO (National Information Standards Organization). 2004. "Understanding Metadata." Bethesda, MD: NISO Press. http://www.niso.org/publications/press/UnderstandingMetadata.pdf.
- Gill, Tony. 2008. "Metadata and the Web." In *Introduction to Metadata*. 2nd ed., v. 3.0, edited by Murtha Baca. Los Angeles: Getty Research Institute. http://www.getty.edu/research/publications/electronic_publications/intrometadata/metadata.html.
- Boiko, Bob. 2005. "Defining Data, Information, and Content: A CM Domain White Paper." http://www.metatorial.com/downloads/Boiko_Wp_DefiningDataInformationContent.pdf.

Exercises

Recommended Exercises

1. Find three or four examples of diverse types of digital collections; make note of the name of the collection and the URL for its home page. Find examples that include diverse subject matter, diverse resource types, and, if possible, diverse types of hosting institutions.
2. Look at one or more records from one of the digital collections you found. Print the record and identify the metadata *properties, values, statements,* and *record* by circling and labeling each. Identify the information *resource* about which the statements are being made, and note how the metadata abut that resource is distinct from the resource itself. Review Section 1.1, "What Is Metadata" on pages 1-5 of the text.
3. Review the different types of metadata in the sidebar on page 12 of the book. Although more detailed administrative, technical, preservation, and rights metadata may be maintained separately for internal staff use, can you find examples, within descriptive metadata records displayed to end users, of metadata properties and values that could also serve one or more of the functions above in addition to their descriptive functions? Can you find an example of a complex digital object that uses structural metadata, and identify the components that constitute the publicly-viewable structural metadata?

Suggestions for Instructors

- Consider selecting and providing students with sources for some or all of the exercises above, sources that you have found and that provide good examples.
- Have each student create 1-3 original metadata records in Excel for an invented digital collection.
    - Provide them with a simple set of metadata fields with minimal definitions and minimal content or input guidelines, and no controlled vocabularies.
    - Provide them with an Excel spreadsheet template with the fields given the columns, and instruct them not to alter it as they fill in the fields, creating a one metadata record per row in the spreadsheet.
    - Emphasize that you are purposely not given them more detailed guidance and that they are not bound to follow any set of resource description or cataloging rules and that one purpose of the exercise is to see the variety of ways that different students enter metadata into the fields. This exercise is not a test of right versus wrong, and they can do no wrong.
    - After students have submitted their work, copy and paste all of submissions into a master spreadsheet file and use Excel's sorting and filtering functions to illustrate to students how the use of metadata value and content standards affects functionality for users, including their ability to apply search limits, browse through categories, generate alphabetical indexes of personal names, retrieve all resource by or about the same person, and so forth. Have students discuss the results.
    - The point of this simple but very effective exercise is to emphasize the importance of following standards in resource description, and to illustrate concretely how the use, or the lack of use, of standards affects the functionality available to users. The exercise could be assigned during one week and the results submitted and discussed the following week.

Additional Exercise Ideas

1. Review the four main types of metadata standards listed in the sidebar on page 13. Look at one of the specific examples listed for each of the four types, or others that you may be familiar with. Links to many of these standards are provided in the "Metadata Standards and Resources" section of the Companion Website. Compare and contrast characteristics of each of the four types and discuss how each would be used when designing a metadata scheme and creating metadata for digital resources. Note: focus on data structure, content, and value standards if you have little or no familiarity with data format/interchange, encoding standards.
2. Discussion: Do you have any experience with digitization, digital collections, or metadata design or creation for digital objects? Describe and share.