

## Chapter 4 Supplement

### Resource Content and Relationship Elements

---

#### Questions for Review, Study, or Discussion

1. This chapter explores information and metadata elements having to do with what aspects of digital resources? What are two of the most challenging aspects of resource description and cataloging, regardless of the metadata scheme being used? The chapter concludes with a section on what aspects of information resources and what kinds of metadata elements?

#### Content Types and Genres

2. Why are broad, generic resource type elements important in metadata? What functions do they enable for end users of digital collections? Does their value increase when taking into account cross-searching across multiple collections of different resource types and when aggregating metadata from various institutions and collections into a common repository?
3. What distinction can be made between broad, generic type of resource elements and more specific resource type or genre elements?
4. Why do virtually all standard metadata schemes and best practice guides agree that resource type and genre terms should be taken from a controlled vocabulary? What implications does this have for user functionality and interoperability?
5. What are the official DCMI Definition and Comment for the **Dublin Core Type** element? Does it include any element refinements or encoding schemes? What does the official Comment recommend and how does it distinguish the DC *Type* element from the DC *Format* element?
6. The *DCMI Type Vocabulary* the most commonly used controlled vocabulary for type of resource terms in Dublin Core. How many terms are in that controlled vocabulary? Why does the *Vocabulary* include the terms *Image*, *Still Image*, and *Moving Image*? Is the term *Physical Object* intended to be used for digital images of physical objects? What terms from the *DCMI Type Vocabulary* should be used for digital images of physical objects?
7. If an institution decides to use more specific type of resource or genre terms than those established in the *DCMI Type Vocabulary*, could there still be a value in including one of the broader terms in addition to more specific terms? Why? What would be the point?
8. When using most digital content management systems such as CONTENTdm, do metadata creators need to enter *Type* terms in each new record when they are all the same for a particular collection?
9. One of the most common sources of confusion for many implementers of Dublin Core is the difference between the DC *Type* and *Format* elements. What is the difference? What aspects and/or examples help you remember the difference and fix it clearly in your mind? Connecting the difference to the *content versus carrier* distinction made in Chapter 2 can be potentially useful for this purpose, even though the connection with Type versus Format is not quite that exact.

#### Formats and Physical Description

10. What kinds of format and physical characteristics of resources do most standard metadata schemes include elements for recording? Do the Dublin Core and MODS schemes include elements for all of these aspects? What three additional specialized elements do the VRA schemes include?
11. What are the official DCMI Definition and Comment for the **Dublin Core Format** element? Does it include any element refinements or encoding schemes?

12. For what types and aspects of resources is the *Internet Media Types* controlled vocabulary applicable? For what types and aspects of resources are the *DC Medium* and *Extent* refinements applicable? The examples on page 96 illustrate the full range of possible combinations of these two refinements and of the IMT encoding scheme.
13. Recall that in practice most metadata implementers find it important for their users to record some amount of information about both a digitized resource and its original analog resource in the same record. Table 4.6 includes three examples. Does this practice make sense to you?
  - Why might these various characteristics be considered valuable for users of the digital collection? What kinds of information do they give about both the digital resource and its analog original that users might find useful? Might any of them be used also for browsing, hyperlinking, and gathering functions?

### Subject Content Metadata

14. What is the distinction between know item searching and exploratory searching? What tends to be the most common and useful type of exploratory searching and browsing?
15. What are some of the problems or challenges inherent in the process of subject analysis and representation, and why is this process still useful for users of digital collections?
16. What is a subject *term*? What is a *pre-coordinated subject string*?
17. What is the difference between general keyword searching and searching the content of specific metadata fields, such as subject fields?
18. Even if users can search the full text of resources, do you agree that there is still value to being able to search and/or browse through subject terms specifically selected by metadata creators and entered into the metadata records that represent specific resources? What about for non-textual resources?
19. What are some advantages of using a controlled vocabulary for such subject terms over uncontrolled terms that individual metadata creators might think up themselves, or that end users might use to tag resources? What are some advantages and disadvantages of each method?
20. What do metadata project coordinators need to do in practice when it comes to the time staff spend on subject analysis and representation?
21. In what sense is creating subject metadata inherently a two step process, at least logically?
  - Do you have cataloging or other resource description experience with analyzing the subject content of resources and assigning controlled vocabulary terms to represent that content? If so, to what extent are you consciously aware of these two aspects as separate from each other? To what extent do you consistently use a specific subject vocabulary to such an extent that you immediately start to think in terms of that vocabulary?
22. What are some differences in how metadata creators go about the process of analyzing the subject content of texts, recorded sound and moving images, still images, and other types of resources? Can you think of other aspects not mentioned in the book?
23. What five fundamental questions might a metadata creator ask about a resource in order to analyze its subject content? What is meant by the term *aboutness*? How and why do some people distinguish *aboutness* from *ofness* when it comes to image resources? How might the concepts of both *aboutness* and *ofness* be further distinguished from the concept of *isness* (although this latter term is not commonly used in cataloging or metadata literature)?
24. What are subject *facets* and what are some of the most common kinds of facets? By separating out these facets and assigning controlled terms to each, how can this enable the functionality of *faceted navigation, browsing, or search*? How are these uses of the term *facets* and *faceted* different from the use of those terms in traditional library and information science classification theory and practice?
25. What is the concept of *exhaustivity* in subject indexing? How do metadata designers and creators encounter it in practice? What are some implications for end users that result from decisions about the number of subject concepts to represent with terms in the metadata for a resource?

26. What is the concept of *specificity* in subject indexing? How does it differ from *exhaustivity*? How do metadata designers and creators encounter it in practice? What might be some reasons for including one or more broader terms in addition to the most specific term or terms in the metadata for a resource?
27. Pages 105-109 deal specifically with the subject analysis and indexing of images. Much of the content of this section overlaps with topics from the previous sections, but it goes into some of them in greater detail in terms of their application specifically to images. Are there aspects of this section that stand out for you? How do decisions about *exhaustivity* (number of subject terms) apply to the *ofness* of what is depicted in an image? How is the image in Figure 3.2 from the previous chapter used as an example? How does the political cartoon in Figure 4.1 and the famous image in Figure 4.2 further illustrate the distinction between *ofness* and *aboutness* in the subject indexing of images? How can the concept of *isness* come into play in representing images with subject terms? Might the *isness* aspect of images be better represented in metadata fields other than Subject? What example illustrating the issue of *specificity* (specific versus general terms) in subject indexing is given on page 109?
28. What are the official DCMI Definition and Comment for the **Dublin Core Subject** element? Does it include any element refinements or encoding schemes?
29. What range of types of subjects does the DC Subject element encompass? What two types of subject content go into the DC *Coverage* element instead of DC *Subject*?
30. Are implementers of Dublin Core restricted to using only the six DC Subject vocabulary encoding schemes listed in DCMI Metadata Terms?
31. What are the official DCMI Definition and Comment for the **Dublin Core Coverage** element? What kinds of content do they specify for this DC element? What two element refinements does the *Coverage* element include? What encoding schemes are listed?
32. Why do you think that *Coverage* has been distinguished from *Subject* as an element in Dublin Core? What are some potential uses for this kind of information? What other types of metadata communities might want to map metadata to and from Dublin Core? Remember that geospatial coordinates are one type of data encompassed by DC *Coverage*. Where, how, and by whom are geospatial coordinates used today?
33. Why is DC *Coverage* essentially a *subject content* element? What is the distinction between *Spatial* and *Temporal Coverage*? How is DC *Coverage Temporal* different from DC *Date*? This is a commonly misunderstood distinction, with the result that DC *Coverage Temporal* is sometimes misused and results in less functional and interoperable metadata.
34. Why are descriptions, abstracts, and tables of contents included in the section on subject content metadata in this book?
35. What are at least two primary functions for users of a narrative description or abstract of the subject content of a resource? How can this type of information be useful even for images in which the user can see what is depicted in the image?
36. What is the official DCMI Definition and Comment for the **Dublin Core Description** element? Does it include any element refinements or encoding schemes?
37. The DC Description element is often used in practice for what two different purposes?

### Resource Relationships

38. What relationships among resources are included in Barbara Tillet's Taxonomy?
39. What two types of relationships are especially common in metadata for digital collections?
40. How can the distinction between content and carrier (also covered in Chapter 2) be helpful in understanding the equivalence and derivative relationships?
41. What kinds of values should ideally be used in relationship elements in metadata records? What is an alternative?

42. What are the official DCMI Definitions and Comments for the **Dublin Core *Relation* and *Source*** elements? Does either include any element refinements or encoding schemes?
43. What does the DCMI recommend as best practice for identifying the related resource?
44. In what sense are the Dublin Core *Relation* and *Source* elements very different from the other thirteen DC elements?
45. What variety of types of relationships among resources can the DC *Relation* encompass? How does this contrast with the DC *Source* element? In practice, while not exactly what was originally envisioned by the creators of the Dublin Core scheme, how can these elements sometimes be used?
46. What DC *Relation* element refinement is perhaps the most commonly used?
47. What is the difference between the DC *Relation* *IsVersionOf* and *IsFormatOf* refinements?
48. DC *Source* is probably the most ambiguous, misunderstood, and misused of the fifteen core elements. Why is this so? What type of relationship is it intended to cover? For what kind of related resource should DC *Source* be used and for what kinds of related resource should it not be used? How should the phrase “in whole or in part” in the DC *Source* element definition be understood?
49. What are readers cautioned to keep in mind when looking at the Dublin Core Full Record Examples in Section 4.4 of the text?

---

## Recommended Readings and Resources for Reference or Further Study

### DCMI Resources

- DCMI. “DCMI Metadata Terms.” <http://dublincore.org/documents/dcmi-terms/>
- DCMI “Dublin Core Metadata Element Set, Version 1.1.” <http://www.dublincore.org/documents/dces/>.
- DCMI. Metadata Training Resources. <http://dublincore.org/resources/training/>
- Hillman, Diane. 2005. Using Dublin Core. <http://dublincore.org/documents/2005/11/07/usageguide/>

### Controlled Vocabularies

- *DCMI Type Vocabulary*: <http://dublincore.org/documents/dcmi-type-vocabulary/>
- *Getty Art and Architecture Thesaurus*: <http://www.getty.edu/research/tools/vocabularies/aat/>
- *IMT (Internet Media Types)*: <http://www.iana.org/assignments/media-types/>
- *Library of Congress Thesaurus for Graphic Materials*: <http://www.loc.gov/rr/print/tgm1/>
- *Thesaurus of Geographic Names*: <http://www.getty.edu/research/tools/vocabularies/tgn/>

### Readings

- Alexander, Arden, and Tracy Meehleib. 2001. “The Thesaurus for Graphic Materials: Its History, Use, and Future.” *Cataloging & Classification Quarterly* 31, no. 3/4: 189–212.
- LCTGM. LC Thesaurus for Graphic Materials. <http://www.loc.gov/rr/print/tgm1/>
  - Introduction Section II: “Indexing Images: Some Principles.”
  - Introduction Section III: “Subject Heading Strings and Subdivisions.”
- Layne, Sara Shatford. 1994. “Some Issues in the Indexing of Images.” *Journal of the American Society for Information Science* 45, no. 8: 583–588.
- Tillett, Barbara B. 1991. “A Taxonomy of Bibliographic Relationships.” *Library Resources & Technical Services* 35, no. 2 (April): 150–158.
- Tillett, Barbara B. 2001. “Bibliographic Relationships.” In *Relationships in the Organization of Knowledge*, edited by Carol A. Bean, and Rebecca Green, 19–35. Information Science and Knowledge Management, vol. 2. Dordrecht: Kluwer Academic Publishers.

## Exercises

### Recommended Exercises

1. Complete the qualified Dublin Core record(s) started for the Chapter 3 exercise, now adding the following elements if and when they apply to a particular resource: *Type, Format, Subject, Coverage, Description, Relation, Source*. Use Chapter 4 as a guide.
  - Continue to follow the example given in Table 2.15 for representing QDC in a table format.
  - Continue to follow one or more application profile documents if you have one or more available to you.
  - Make note of any issues, problems, questions, and uncertainties that arose for you when creating the metadata and applying these Dublin Core elements and their refinements and encoding schemes.
  - Did you encounter any of the issues raised in Chapter 4 for these general types of elements and/or for the Dublin Core elements specifically?
  - What challenges arose for you when analyzing the subject content of the resource(s)? Did you encounter issues of aboutness versus ofness versus inness, facets, exhaustivity, specificity, facets, topical, geographical, and temporal subjects?
  - What kinds of relationships between different resources did you encounter and how did you express those relationships in Dublin Core?
2. Take your complete Qualified Dublin Core metadata record and remove the qualifiers. If you have used the suggested table format, you may do this by copying and pasting your table and deleting the qualifier columns from this version of the table. This is the form in which most service providers will harvest the metadata using the OAI Protocol for Metadata Harvesting. How does the metadata stand in its simple Dublin Core form? Does it remain meaningful and useful?

### Suggestions for Instructors

- See the suggestions given for the Chapter 3 Exercises.

### Additional Exercise Ideas for Chapters 3-4, especially for readers doing self-study without an instructor

1. Find one or more resources that have not yet been described with metadata, or for which you have not looked at the metadata. What aspects are important to bring out for users, in order for them to identify and retrieve the resources? How would you deal with resource type, format or physical description, subject content, and relationships with other resources?
2. Continue with the Qualified Dublin Core record(s) you began for the Chapter 3 exercise by now adding the following elements if and when they apply to your resource(s): *Type, Format, Subject, Coverage, Description, Relation, Source*. Use Chapter 4 as a guide. Which Dublin Core elements and qualifiers are difficult for you to understand? Try reviewing the official DCMI definitions and comments, as well as the text of this chapter and the examples given.
3. Take your complete Qualified Dublin Core metadata record and remove the qualifiers. If you have used the suggested table format, you may do this by copying and pasting your table and deleting the qualifier columns from this version of the table. This is the form in which most service providers will harvest the metadata using the OAI Protocol for Metadata Harvesting. How does the metadata stand in its simple Dublin Core form? Does it remain meaningful and useful?