

# 詮釋資料專題(Metadata) (106 上學期)

藍文欽

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課程編號: 126 U1370 上課時間: 星期五 9:10-12:10 上課地點: 圖資系會議室

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## 課程簡介

本課程之重點，在引導同學瞭解詮釋資料 (metadata) 之意義、類型與功用，對各類詮釋資料之格式與相關規範能有基本認識，並能明白詮釋資料互通轉換的意義與作法。藉由小組實作，幫助同學掌握設計、應用、與評估詮釋資料的相關原則與方法。課程內容包括：

- 詮釋資料之意義、類型與功用
- 詮釋資料之相關標準 (如：content standards, structure standards, value standards, encoding standards, etc.)
- XML 與 RDF 之基本概念
- 介紹各類 metadata schemas (如：DC, MODS, TEI, CDWA, CCO, VRA, IEEE-LOM, SCORM, EAD, MPEG-7, ePub, etc.) [重點會放在 Dublin Core、MODS、CDWA、VRA]
- Metadata schema 之設計與建置(如：element sets, value space, application profiles, encoding schemas, metadata records, etc.)
- Metadata harvesting and aggregating / Metadata services
- Metadata interoperability
- Metadata quality measurement and improvement

## 課程專屬之 Mailing List：metadata-L@mail.lis.ntu.edu.tw

- 請透過 <http://list.lis.ntu.edu.tw> 加入此課程 list
- 討論事項則請寄往 metadata-L@mail.lis.ntu.edu.tw
- 課程 mailing list，可將它視同一個 email 帳號，收件人是修課的全部同學。
- 這是大家共享的園地，可分享心得、討論問題等，請多加利用。

## 課程教材

### 1. 指定教科書：

Lubas, R. L., Jackson, A. S., & Schneider, I. (2013). *The metadata manual: A practical workbook*. Oxford: Chandos Publishing. [本校訂有電子版，可全書下載]

Miller, S. J. (2011). *Metadata for digital collections: A how-to-do-it manual*. London: Facet Publishing. [Companion Website:

<http://www.alastore.ala.org/nealschuman/companionwebsite/metadata-digital-collections/>]

Riley, J. (2017). *Understanding metadata: What is metadata, and what is it for?*

Baltimore: NISO. Available at:

[http://www.niso.org/apps/group\\_public/download.php/17446/Understanding%20Metadata.pdf](http://www.niso.org/apps/group_public/download.php/17446/Understanding%20Metadata.pdf)

Zeng, M. L., & Qin, J. (2016). *Metadata* (2nd ed.). New York: Neal-Schuman.

[Companion Website: <http://www.metadataetc.org/book-website2nd/index.html>]

Appendix A: Metadata Standards:

<http://www.metadataetc.org/book-website/readings/appendixaschemas.htm>

Appendix B: Value Encoding Schemes and Content Standards:

<http://www.metadataetc.org/book-website/readings/appendixbencodschemes.htm>

## 2. 參考資源：

中央研究院/數位典藏與數位學習國家型科技計畫訓練講義

<http://metadata.teldap.tw/bibliography/train-document.htm>

吳政叡（1998）。*都柏林核心集與元資料系統*。臺北市：漢美。

吳政叡（2000）。*都柏林核心集與圖書著錄*。臺北市：臺灣學生。

肖瓏、趙亮、鄭巧英、馮項雲、沈芸芸編著（民99）。*中文元資料概論與實例*。臺北市：文華圖書館管理。

張曉林主編（2002）。*元數據研究與應用*。北京：北京圖書館出版社。

陳昭珍主編(2000)。*中文詮釋資料(Metadata)格式彙編*。臺北市：國家圖書館。

陳雪華、陳昭珍、陳光華合編(2001)。*數位圖書館XML/Metadata管理系統*。臺北市：文華。

詮釋資料格式規範研訂小組編撰（民92）。*詮釋資料格式規範*。臺北市：國家圖書館。

經濟部標準檢驗局主辦（民96）。「界定 Metadata 中文名詞論壇」會議成果報告書 -- <http://metadata.teldap.tw/bibliography/bibliography-frame.html>

劉嘉（2002）。*元數據導論*。北京：華藝。[本校訂有電子版]

謝瀛春總編輯（民95）。*數位典藏技術彙編*。2006版。臺北市：數位典藏國家型科技計畫計畫辦公室。

Baca, M., (Ed.) (2016) *Introduction to metadata: Pathways to digital information*. (3rd ed.). Los Angeles, Calif.: Getty Information Institute. Available at:

<http://www.getty.edu/publications/intrometadata/>

Caplan, P. (2003). *Metadata fundamentals for all librarians*. Chicago: American

- Library Association.
- Cole, T. W., & Foulonneau, M. (2007). *Using the Open Archives Initiative protocol for metadata harvesting*. Westport, Conn.: Libraries Unlimited.
- Eden, B. L. (Ed.) (2012). *Twenty-first century metadata operations: Challenges, opportunities, directions*. Abingdon, Oxon : Routledge.
- Foulonneau, M., & Riley, J. (2008). *Metadata for digital resources: Implication, systems design and interoperability*. Oxford: Chandos.
- Gorman, G. E., (Ed.) (2004). *Metadata applications and management*. Lanham, Md.: Scarecrow Press.
- Haynes, D. (2004). *Metadata for information management and retrieval*. London: Facet.
- Hilder, P. (2012). *Information resource description: Creating and managing metadata*. London: Facet. [在資訊組織一指定參考書架]
- Hillmann, D. I. & Elaine L. W. (2004) *Metadata in practice*. Chicago: American Library Association.
- Hooland, S. v., & Verborgh, R. (2014). *Linked data for libraries, archives and museums: How to clean, link and publish your metadata*. London: Facet Publishing.
- Inmon, B. O., & Fryman, L. (2008). *Business metadata* [electronic resource]. Boston: Elsevier/Morgan Kaufmann. Available at:  
<http://www.sciencedirect.com/science/book/9780123737267>
- Intner, S. S., Lazinger, S. S., & Weihs, J. (2006). *Metadata and its impact on libraries*. Westport, Conn.: Libraries Unlimited, 2006.
- Ma, J. (2007). *Metadata*. Washington, D.C.: Association of Research Libraries.
- Mitchell, E. (2015). *Metadata standards and Web services in libraries, archives, and museums: An active learning resource*. Santa Barbara, Calif.: Libraries Unlimited.
- Park, J.-R. (2012). *Metadata best practices and guidelines: Current implementation and future trends*. London: Routledge.
- Pomerantz, J. (2015). *Metadata*. Cambridge, MA: The MIT Press.
- Sicilia, M.-A. (2014). *Handbook of metadata, semantics and ontologies*. Singapore: World Scientific.
- Smith, G. (2008). *Tagging: People-powered metadata for the social web*. Berkeley, CA: New Riders.
- Smiraglia, R. P., (Ed.) (2005). *Metadata: A cataloger's primer*. New York: Haworth. Co-published simultaneously as *Cataloging & Classification Quarterly*, 40 (3/4).

Taylor, A. G., & Joudrey, D. N. (2009). *The Organization of information* (3rd ed.). Westport, Conn.: Libraries Unlimited.

Vellucci, Sherry L. (1999). Metadata. In M. E. Williams (Ed.), *Annual Review of Information Science and Technology*, vol. 33 (pp. 187-222). Medford, NJ: Information Today.

Wook, D., Zaidman, M., Ruth, L. (2014). *Linked data: Structured data on the Web*. Shelter Island, NY: Manning.]

## [XML & RDF]

Cole, T. W., & Han, M-J K. (2013). *XML for catalogers and metadata librarians*. Santa Barbara, Calif.: Libraries Unlimited.

Desmarais, N. (2000). *The ABCs of XML: The librarian's guide to the extensible markup language*. Houston, Texas: New Technology Press.

Miller, D. R., & Clarke, K. S. (2004). *Putting XML to work in the library: Tools for improving access and management*. Chicago: ALA.

St. Laurent, S. (1999). *XML: A Primer*. 2nd ed. Foster City, CA: M&T Books.(有中譯本，余顯強編譯。汐止：博碩文化，2000)

余顯強。(2004)。XML 標準與技術簡介。臺北市:數位典藏訓練廣分項計畫。

勞虎。(1999)。無廢話 XML。(可由下列網址下載：[http://yes.nctu.edu.tw/Lecture/Web/XML/PDF/wfhxml\\_b5/wfhxml.pdf](http://yes.nctu.edu.tw/Lecture/Web/XML/PDF/wfhxml_b5/wfhxml.pdf))

Hjelm, J. (2001). *Creating the semantic web with RDF*. New York: Wiley.

Powers, S. (2003). *Practical RDF*. Beijing: O'Reilly.

國家文化資料庫知識管理系統詮釋資料規範 1.1 版 <http://web.archive.org/web/20021015163628/http://km.cca.gov.tw:80/download/rule.html>

中央研究院/數位典藏與數位學習國家型科技計畫後設資料工作組

<http://metadata.teldap.tw/index.html>

參考規範：<http://metadata.teldap.tw/standard/standard-frame.html>

A Framework of Guidance for Building Good Digital Collections: A NISO Recommended Practice, 3rd ed. [內含六則 metadata principles]

<http://www.niso.org/publications/rp/framework3.pdf>

Baca, M. (2016). Glossary. In M. Baca (Ed.), *Introduction to metadata* (3rd ed.). Los Angeles: Getty Publications. Available at:

<http://www.getty.edu/publications/intrometadata/glossary/>

Data Documentation Initiative (DDI) <http://www.ddialliance.org/>

Library of Congress Workshop.

Metadata and Digital Library Development.

<https://www.loc.gov/catworkshop/courses/metadatadl/index.html>

Metadata Standards and Applications.

<https://www.loc.gov/catworkshop/courses/metadatastandards/index.html>

Metadata Basics (created by Marcia Zeng)

<http://www.slis.kent.edu/~mzeng/metadatabasics/>

Metadata and Cataloging Online Resources (Comp. by Steven Miller)

<http://people.uwm.edu/ml/metadata-resources/>

MIME Media Types <http://www.iana.org/assignments/media-types/index.html>

UKOLN Metadata <http://www.ukoln.ac.uk/metadata/>

W3C Data Activity <http://www.w3.org/2013/data/>

**成績評分標準：**點名不到，每次扣學期總成績**參分**。作業請依規定時間準時繳交，每遲交一日，扣該次作業成績五分。

作業 1: Dublin Core 練習 (描述一本書及一個網頁，採用 RDF 架構及 XML 標誌語言) (10%) [書：Zeng & Qin (2016), *Metadta*, 2nd ed.; 網頁：台大總圖] (10/20 交)

作業 2: MODS 練習 (將作業一所描述的項目，改以 MODS 描述)(10%) (11/3 交)

作業 3: 選擇另一種類型的資源，並選用適當之 Metadata Schema 予以描述 (另紙說明此資料的特性，及選擇 Metadata Schema 時的考慮，以及為何此 Schema 是合適的選擇) (20%) (12/8 交)

作業 4: 選擇兩種 metadata 標準，編輯它們之間的對照表(crosswalk) (10%) (1/3 交)

期末分組作業: 針對某類型之資源，自行設計適用的 Metadata Schema。(50%) (1/17 中午以前交)

**課程進度：**

9/15 課程簡介 / Metadata Basics

Miller, S. J. (2011). *Metadata for digital collections*, Chap. 1.

Caplan, P. (2003). *Metadata fundamentals for all librarians*, Chap. 1.

Intner, Lazinger, & Weihs. (2006). *Metadata and its impact on libraries*, Chap. 1.

Riley, J. (2017). *Understanding metadata: What is metadata, and what is it for?*

Smiraglia, R. P. (2005). *Introducing Metadata. Cataloging and Classification Quarterly*,

40 (3/4), 1-15. <http://www.columbia.edu/cu/libraries/inside//units/bibcontrol/osmc/smiraglia.pdf>

肖瓏、趙亮、鄭巧英、馮項雲、沈芸芸編著（民99），中文元資料概論與實例，第二章。

Baca, M. (2016). Glossary. In M. Baca (Ed.), *Introduction to metadata* (3rd ed.). Los Angeles: Getty Publications. Available at:  
<http://www.getty.edu/publications/intrometadata/glossary/>

## 9/22      **Metadata Basics (cont.)**

Zeng, & Qin. (2016). *Metadata*, Chap. 1-2.

Miller, S. J. (2011). *Metadata for digital collections*, Chap. 2.

Greenberg, J. (2005). Understanding metadata and metadata schemes. *Cataloging and Classification Quarterly*, 40 (3/4), 17-36.

<http://www.columbia.edu/cu/libraries/inside//units/bibcontrol/osmc/greenberg.pdf>

Coyle, K. (2005). Understanding metadata and its purpose. *Journal of Academic Librarianship* 31(2), 160-163.

Gilliland, A. J. (2016). Setting the stage. In M. Baca (Ed.), *Introduction to metadata* (3rd ed.). Los Angeles, CA: Getty Research Institute. Available at:  
<http://www.getty.edu/publications/intrometadata/setting-the-stage/>

Gill, T. (2016). Metadata and the Web. In M. Baca (Ed.), *Introduction to metadata* (3rd ed.). Los Angeles, CA: Getty Research Institute. Available at:  
<http://www.getty.edu/publications/intrometadata/metadata-and-the-web/>

Elings, M. W., & Waibel, G. (2007). Metadata for all: Descriptive standards and metadata sharing across libraries, archives and museums. *First Monday*, 12(3).  
<http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1628/1543>

## 9/29      **XML & RDF 概述**

XML (eXtended Markup Language)

RDF (Resource Description Framework)

Lubas, R. L., Jackson, A. S., & Schneider, I. (2013). *The metadata manual: A practical workbook*, Chap. 2.

Miller, S. J. (2011). *Metadata for digital collections*, Chap. 6.

Morgan, E. L. (2004). Getting started with XML: A workshop.  
<http://www.informations.com/musings/getting-startyed>

W3C Extensible Markup Language (XML) <http://www.w3.org/XML/>

XML Files <http://www.xmlfiles.com/>

XML Tutorial <http://www.w3schools.com/xml/default.asp>

Cole, T. W., & Han, M-J K. (2013). *XML for catalogers and metadata librarians*. Santa Barbara, Calif.: Libraries Unlimited.

Costello, R. L. (2006). XML schemas: Best practices. Available at: <http://www.xfront.com/BestPracticesHomepage.html>

Desmarais, N. (2000). *The ABCs of XML: The librarian's guide to the extensible markup language*. Houston, Texas: New Technology Press.

Manola, F., Miller, E. & McBride, B. (2014). RDF 1.1 primer. W3C Working Group Note 25. Available at: <http://www.w3.org/TR/rdf11-primer/>

Miller, D. R., & Clarke, K. S. (2004). *Putting XML to work in the library: Tools for improving access and management*. Chicago: ALA.

St. Laurent, S. (1999). *XML: A Primer*. 2nd ed. Foster City, CA: M&T Books.(有中譯本，余顯強編譯。汐止：博碩文化，2000)

Srivastava, R. (2007). XML schema: Understanding namespaces. Oracle Technology Network. Available at: <http://www.oracle.com/technetwork/articles/srivastava-namespaces-092580.html>

余顯強。(2004)。*XML 標準與技術簡介*。臺北市:數位典藏訓練廣分項計畫。

勞虎。(1999)。*無廢話 XML*。(可由下列網址下載：[http://yes.nctu.edu.tw/Lecture/Web/XML/PDF/wfhxml\\_b5/wfhxml.pdf](http://yes.nctu.edu.tw/Lecture/Web/XML/PDF/wfhxml_b5/wfhxml.pdf))

W3C Resource Description Framework (RDF) <http://www.w3.org/RDF/>

Powers, S. (2003). *Practical RDF*. Cambridge: O'Reilly.

Hjelm, J. (2001). *Creating the semantic web with RDF*. New York: Wiley.

Ianella, R. (1998). An idiot's guide to the Resource Description Framework. *The New Review of Information Networking*, 4. <http://renato.iannella.it/paper/rdf-idiot>

Miller, E. (1998). An introduction to the Resource Description Framework. *D-Lib Magazine* (May). <http://www.dlib.org/dlib/may98/miller/05miller.html>

RDF Tutorial -- <http://www.w3schools.com/rdf/default.asp>

吳政叡，資源描述架構在都柏林核心集的應用介紹。<http://dimes.lins.fju.edu.tw/pub/bul-ncl-taiwan-5-1/rdf1.html>

Zeng & Qin (2016), *Metadata*, Chap. 10.1.1

Lubas, R. L., Jackson, A. S., & Schneider, I. (2013). *The metadata manual: A practical workbook*, Chap. 3.

Miller, S. J. (2011). *Metadata for digital collections*, Chap. 3 & 4.

Dublin Core Metadata Initiative (DCMI) <http://dublincore.org>

Hillmann, Diane. (2005). Using Dublin Core.  
<http://dublincore.org/documents/usageguide/>

Coyle, Karen. (2009). Guidelines for Dublin Core Application Profiles.  
<http://www.dublincore.org/documents/2009/05/18/profile-guidelines/>

Dublin Core Metadata Initiative (DCMI) <http://dublincore.org>

DCMI Metadata Terms <http://dublincore.org/documents/dcmi-terms/>

DCMI Abstract Model <http://dublincore.org/documents/abstract-model/>

DCMI Library Application Profile <http://dublincore.org/documents/library-application-profile/>

NSDL (National Science Digital Library) DC Metadata Guidelines  
<http://nsdl.org/collection/metadata-guide.php>

Expressing Dublin Core Metadata Using the Resource Description Framework (RDF)  
<http://dublincore.org/documents/dc-rdf/>

Expressing Dublin Core Description Sets Using XML (DC-DS-XML)  
<http://dublincore.org/documents/dc-ds-xml/>

Expressing Dublin Core Description Sets Using HTML/XHTML Meta and Link Element (DC-HTML) <http://dublincore.org/documents/dc-html/>

## **10/13      MARC Family / MODS**

LC MARC Standard <http://www.loc.gov/marc/>

Metadata Object Description Schema (MODS) <http://www.loc.gov/standards/mods/>

Zeng & Qin (2016), *Metadata*, Chap. 10.1.2

Miller, S. J. (2011). *Metadata for digital collections*, Chap. 7.

Guenther, R. S. (2003). MODS: The Metadata Object Description Schema. *Libraries and the Academy*, 3 (1), 137-150.

Guenther, R. S. (2004). Using the Metadata Object Description Schema (MODS) for resource description: Guidelines and applications. *Library Hi Tech*, 22 (2), 89-98.

## **10/20      Metadata Schemas 選介 – For Cultural Objects and Classics (e.g., CDWA /**

**CCO / TEI header) (交作業一)**

Intner, Lazinger, & Weihs. (2006). *Metadata and its impact on libraries*, Chap. 2.

Lubas, R. L., Jackson, A. S., & Schneider, I. (2013). *The metadata manual: A practical workbook*, Chap. 5.

Zeng & Qin (2016), *Metadata*, Chap. 10.2

CDWA (Categories for the Description of Works of Art)

[http://www.getty.edu/research/conducting\\_research/standards/cdwa/](http://www.getty.edu/research/conducting_research/standards/cdwa/)

CCO (Cataloging Cultural Objects) <http://www.vrafoundation.org/ccoweb/index.htm>

CCO General Guidelines <http://www.vrafoundation.org/ccoweb/cco/partone.html>

CIDOC <http://cidoc.mediahost.org/>

CHIN Data Dictionary: Humanities

<http://daryl.chin.gc.ca:8000/BASIS/chindd/user/wwwhe/SF>

Descriptive Metadata Guidelines for RLG Cultural Materials

[http://www.oclc.org/research/activities/past/rlg/culturalmaterials/RLG\\_desc\\_metadata.pdf](http://www.oclc.org/research/activities/past/rlg/culturalmaterials/RLG_desc_metadata.pdf)

Technical Metadata for Text (textMD) <http://www.loc.gov/standards/textMD/>

TEI (Text Encoding Initiative) <http://www.tei-c.org/index.xml>

TEI Header <http://www.tei-c.org/release/doc/tei-p4-doc/html/HD.html>

Learn the TEI <http://www.tei-c.org/Support/Learn/tutorials.xml>

**10/27      Metadata Schemas 選介 – For Visual Materials (e.g., VRA Core)**

Intner, Lazinger, & Weihs. (2006). *Metadata and its impact on libraries*, Chap. 2.

Lubas, R. L., Jackson, A. S., & Schneider, I. (2013). *The metadata manual: A practical workbook*, Chap. 6.

Miller, S. J. (2011). *Metadata for digital collections*, Chap. 8.

VRA (Visual Resources Association) Core 4.0

<http://www.vraweb.org/projects/vracore4/index.html>

Data Dictionary – Technical Metadata for Digital Still Images (ANSI/NISO Z39.87-2006)-

[http://www.niso.org/kst/reports/standards/kfile\\_download?id%3Austring%3Aiso-8859-1=Z39-87-2006.pdf&pt=RkGKiXzW643YeUaYUqZ1BFwDhIG4-24RJbcZBWg8uE4vWdpZsJDs4RjLz0t90\\_d5\\_ymGsj\\_IKV86hjP37r\\_hKQ00ioOP35W6Q1wkBOLKANPbfamndQa6zkS6rLL3oIr](http://www.niso.org/kst/reports/standards/kfile_download?id%3Austring%3Aiso-8859-1=Z39-87-2006.pdf&pt=RkGKiXzW643YeUaYUqZ1BFwDhIG4-24RJbcZBWg8uE4vWdpZsJDs4RjLz0t90_d5_ymGsj_IKV86hjP37r_hKQ00ioOP35W6Q1wkBOLKANPbfamndQa6zkS6rLL3oIr)

NISO Metadata for Images in XML Schema (MIX) <http://www.loc.gov/standards/mix/>

**11/3      Metadata Schemas 選介— For Educational Resources and Research Data  
(e.g., IEEE-LOM / SCORM / CanCore / GEM / DC-ED) (交作業二)**

IEEE LOM (Learning Object Metadata) <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1032843>

SCORM (Sharable Content Object Reference Models)  
<http://www.adlnet.gov/Technologies/scorm/SCORMSDocuments/2004%204th%20Edition/Documentation.aspx>

DCMI Education Community <http://dublincore.org/groups/education/>

DC-Education Application Profile

[http://projects.ischool.washington.edu/sasutton/dcmi/ed/04-05/DC-Education\\_AP\\_11-30-04.html](http://projects.ischool.washington.edu/sasutton/dcmi/ed/04-05/DC-Education_AP_11-30-04.html)

CanCore <http://cancore.athabasca.ca/en/index.html>

IMS Learning Resource Meta-data <http://www.imsglobal.org/metadata/index.html>

Zeng & Qin (2016), *Metadata*, Chap. 10.3

Data Documentation Initiative (DDI)

<http://www.ddialliance.org/DDI/codebook/index.html>

Definitions for Survey and Census Metadata [http://www.census.gov/quality/S10-0\\_v1.4\\_Metadata\\_Definitions.pdf](http://www.census.gov/quality/S10-0_v1.4_Metadata_Definitions.pdf)

Standard for Survey Design and Statistical Methodology Metadata (SDSM)

<http://www.census.gov/srd/www/metadata/metada18.pdf>

Andrei Lopatenko's Resource Guide to Metadata for Science, Research, Education, and Technology [http://derpi.tuwien.ac.at/~andrei/Metadata\\_Science.htm](http://derpi.tuwien.ac.at/~andrei/Metadata_Science.htm)

The Science Literacy Project. Metadata Standards [http://sdl.syr.edu/?page\\_id=32](http://sdl.syr.edu/?page_id=32)

NBII (National Biological Information Infrastructure) Metadata Standards –

<http://www.nbii.gov/portal/server.pt/community/metadata/704>

Ecological Metadata Language (EML) <http://knb.ecoinformatics.org/software/eml/>

Federal Geographic Data Committee (FGDC) Metadata <http://www.fgdc.gov/metadata>

e-Government Metadata Standard

<http://www.cabinetoffice.gov.uk/govtalk/schemasstandards.aspx>

GILS (Government Information Locator Service/ Global Information Locator Service)

[http://www.usgs.gov/gils/prof\\_v2.html](http://www.usgs.gov/gils/prof_v2.html)

Content Standards for Digital Geospatial Metadata (CSDGM)

[http://www.fgdc.gov/metadata/csdgm/index\\_html](http://www.fgdc.gov/metadata/csdgm/index_html)

Darwin Core <http://rs.tdwg.org/dwc/index.htm>

Data Documentation Initiative (DDI) <http://www.ddialliance.org/>

**11/10      Metadata Schemas 選介 - Archival (e.g., DACS / EAD / ISAD(G))**

薛理桂、王麗蕉 (2010)。檔案編排與描述：理論與實務。臺北市：文華圖書館管理

Zeng & Qin (2016), *Metadata*, Chap. 10.4

DACS (Describing Archives: A Content Standard)

<http://www.archivists.org/governance/standards/dacs.asp>

ISAD(G): General International Standard Archival Description

[http://www.ica.org/sites/default/files/isad\\_g\\_2e.pdf](http://www.ica.org/sites/default/files/isad_g_2e.pdf)

Encoded Archival Description (EAD) <http://www.loc.gov/ead/>

Rules for Archival Description (Canadian standard)

[http://www.cdncouncilarchives.ca/RAD\\_chap1\\_revised\\_Aug2003.pdf](http://www.cdncouncilarchives.ca/RAD_chap1_revised_Aug2003.pdf)

**11/17      Metadata Schemas 選介 - Commercial Metadata and Right Management  
Metadata (e.g., ONIX / <indec> / DOI / CDL Rights Management  
Framework)**

Zeng & Qin (2016), *Metadata*, Chap. 10.5, 10.6

ONIX (ONline Information eXchange) <http://www.editeur.org/8/ONIX/>

EPUB <http://idpf.org/epub/30>

IPTC Metadata Standards <https://iptc.org/standards/>

<indec> Metadata Framework: Principles, Model and Data Dictionary

<http://www.indec.org/pdf/framework.pdf>

DOI (Digital Object Identifier) <http://www.doi.org/>

CDL Rights Management Framework <http://www.cdlib.org/inside/projects//rights/>

copyrightMD and Open Digital Rights Language (ODRL)

<http://www.metadataetc.org/book-website/exercises/exercise2-5.htm>

**11/24      Metadata Schemas 選介 - for Multimedia Materials (e.g., MPEG-7, ID3v2,  
PBCore)**

Zeng & Qin (2016), *Metadata*, Chap. 10.7

PBCore (Public Broadcasting Metadata Dictionary) <http://pbcore.org/2.0/>

MPEG-7 <http://mpeg.chiariglione.org/standards/mpeg-7/mpeg-7.htm>

MPEG-21 <http://mpeg.chiariglione.org/standards/mpeg-21/mpeg-21.htm>

BBC Standard Media Exchange Framework Data Model

<http://www.bbc.co.uk/guidelines/smef/>

SMPTE (Society of Motion Picture and Television Engineers) Standards

<http://www.smpste.org/standards/>

LC Moving Images Collections (MIC) Standards

[http://mic.loc.gov/catalogers\\_portal/cat\\_standrslst.htm](http://mic.loc.gov/catalogers_portal/cat_standrslst.htm)

## 12/1      **Metadata Schemas 選介 – Preservation and Provenance Metadata, and other types of metadata (e.g., PREMIS, OAIS, vCard, FOAF)**

Zeng & Qin (2016), *Metadata*, Chap. 10.8, 10.9

PREMIS (Preservation metadata) <http://www.loc.gov/standards/premis/>

PROV-O Ontology <http://www.w3.org/TR/prov-o/>

Reference Model for an Open Archival Information System (OAIS)

<https://public.ccsds.org/pubs/650x0m2.pdf>

FOAF (The Friend of a Friend) <http://xmlns.com/foaf/0.1>

RDF-vCARD <http://www.w3.org/TR/vcard-rdf>

## 12/8      **Metadata Interoperability (交作業三)**

Miller, J. S. (2011). *Metadata for digital collections*, Chap. 9.

Caplan, P. (2003). *Metadata fundamentals for all librarians*, Chap. 4.

Foulonneau, & Riley. (2008). *Metadata for digital resources*, Chap. 8-11.

Zeng & Qin. (2016). *Metadata*, Chap. 8

Chan, L. M., & Zeng, M. L. (2006). "Metadata Interoperability and Standardization: A Study of Methodology, Part I." *D-Lib Magazine*, 12(6). Available online:

<http://www.dlib.org/dlib/june06/chan/06chan.html>

Chan, L. M., & Zeng, M. L. (2006). "Metadata Interoperability and Standardization: A Study of Methodology, Part II." *D-Lib Magazine*, 12(6). Available online:

<http://www.dlib.org/dlib/june06/zeng/06zeng.html>

Miller, P. (2000). "Interoperability: What Is It and Why Should I Want It?"

<http://www.ariadne.ac.uk/issue24/interoperability>

肖瓏、趙亮、鄭巧英、馮項雲、沈芸芸編著（民99），中文元資料概論與實例，第十六章。

Metadata Encoding and Transmission Standard (METS)

<http://www.loc.gov/standards/mets/>

**12/15      Metadata Life Cycle / Choosing a Metadata Standard / Metadata Building Blocks – Schemas – Structure and Semantics**

Miller, J. S. (2011). *Metadata for digital collections*, Chap. 10.

Foulonneau, & Riley. (2008). *Metadata for digital resources*, Chap. 2.

Chohey, M. A. (2005). Planning and implementing a metadata-driven digital repository. *Cataloging and Classification Quarterly*, 40 (3/4), 255-287.

Zeng & Qin. (2016). *Metadata*, Chap. 3.

肖瓏、趙亮、鄭巧英、馮項雲、沈芸芸編著（民99），中文元資料概論與實例，第三章。

**12/22      Metadata Building Blocks – Schemas – Syntax and Content Standards**

Caplan, P. (2003). *Metadata fundamentals for all librarians*, Chap. 2 & 3.

Zeng & Qin. (2016). *Metadata*, Chap. 4.

**12/29      Practical Implementation of a Metadata Strategy / Metadata Records**

Foulonneau, & Riley. (2008). *Metadata for digital resources*, Chap. 3-5.

Zeng & Qin. (2016). *Metadata*, Chap. 5.

**1/3      Metadata Harvesting and Aggregating / Metadata Services / Metadata Quality Measurement and Improvement (交作業四)**

Zeng & Qin. (2016). *Metadata*, Chap. 6 & 7.

**1/12      Final Project Presentation （期末報告請於1/17 中午前繳交）**