A Review on Metadata Development of National Digital Archives Program in Taiwan

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Outline

- Introduction
- Service Model
- Supportive Projects
- Standards Used
- Major Achievements
- Future

Introduction[1]

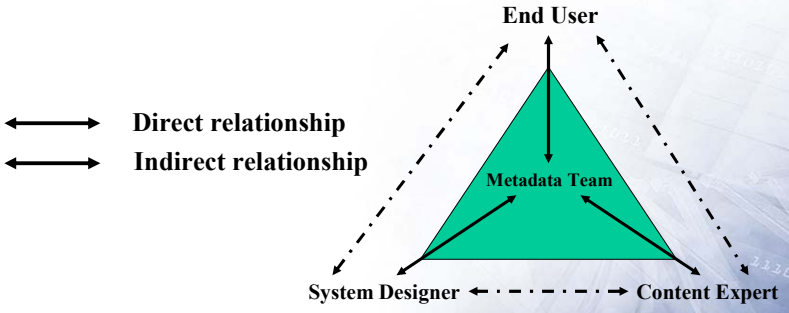
- 1998 – 2001 – SMART
  Sinica **M**etadata **A**rchitecture and **R**esearch **T**eam
- 2001
  The National Digital Archives Pilot Project at Academia Sinica
- 2002 – MAAT
  Metadata **A**rchitecture and **A**pplication **T**eam of the ***N***ational ***D***igital ***A***rchives ***P***rogram (NDAP) in Taiwan

Introduction[2]

- NDAP
  Since 2001, MAAT has supported over 60 projects of NDAP under sponsorship from the National Science Council (NSC) in Taiwan.
- K12 eLearning
  A cooperative project with the Ministry of Education in Taiwan and the Institute of Information Science at Academia Sinica.

Service Model

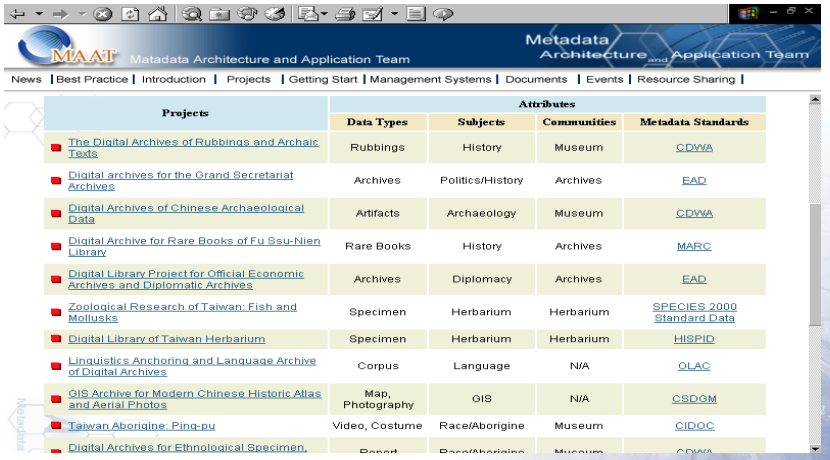
- The service model



Supportive Projects[1]

Themes	History, Politics, Humanities, Archeology, Ethnology, Diplomacy, Zoology, Botany, Species, Genomics, Linguistics, Geology, Geography, Visual Arts, Performing Arts, etc.
Data Type	Rubbings, Files, Official Documents, Antiques, Rare Books, Full Text, Specimens, Corpus, Maps, Photos, Painting and Calligraphy, Video Tapes, Score, Dress, Reports, Investigation, etc.
Organization	Academia Historica, National Library, National History Museum, National Museum of Natural Sciences, National Taiwan University, Taipei National University of The Arts, National Palace Museum, Academia Sinica, etc.

Supportive Projects[2]



Projects	Attributes			
	Data Types	Subjects	Communities	Metadata Standards
The Digital Archives of Rubbings and Archaic Texts	Rubbings	History	Museum	CDWA
Digital archives for the Grand Secretariat Archives	Archives	Politics/History	Archives	EAD
Digital Archives of Chinese Archaeological Data	Artifacts	Archaeology	Museum	CDWA
Digital Archive for Rare Books of Fu Ssu-Nien Library	Rare Books	History	Archives	MARC
Digital Library Project for Official Economic Archives and Diplomatic Archives	Archives	Diplomacy	Archives	EAD
Zoological Research of Taiwan: Fish and Mollusks	Specimen	Herbarium	Herbarium	SPECIES 2000 Standard Data
Digital Library of Taiwan Herbarium	Specimen	Herbarium	Herbarium	HISPID
Linguistics Anchoring and Language Archive of Digital Archives	Corpus	Language	N/A	OLAC
GIS Archive for Modern Chinese Historic Atlas and Aerial Photos	Map, Photography	GIS	N/A	CSDGM
Taiwan Aborigine: Ping-pu	Video, Costume	Race/Aborigine	Museum	CIDOC
Digital Archives for Ethnological Specimen.	Report	Race/Aborigine	Museum	CDWA

- URL:http://www.sinica.edu.tw/~metadata/project/project-eng-frame.html

Standards Used[1] *– NDAP*

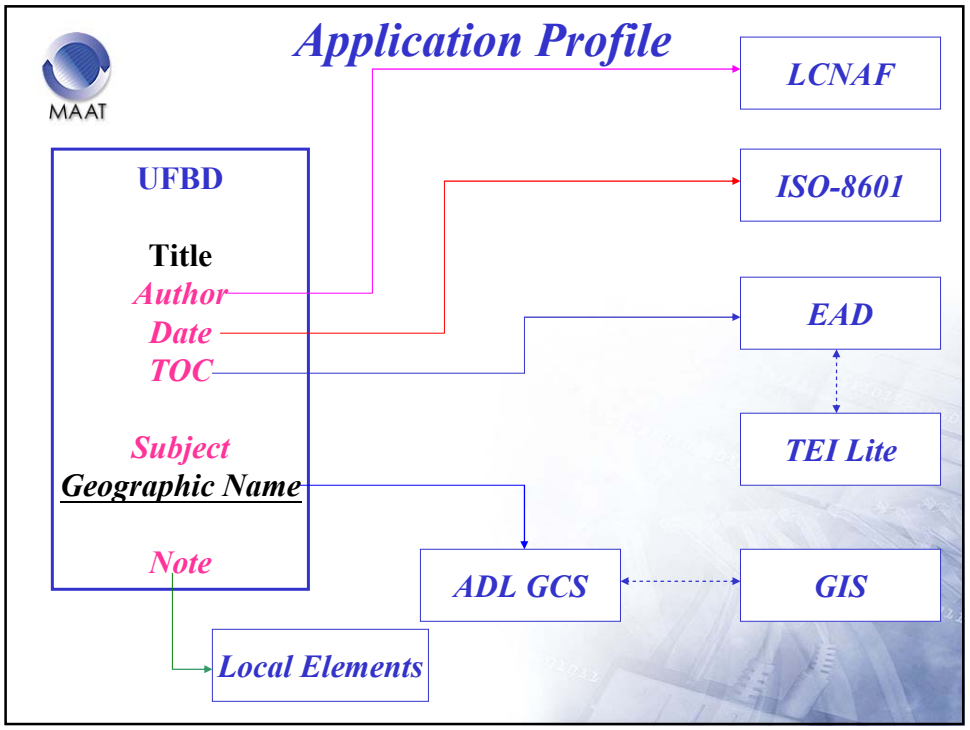
	Archives	Hrbm.	Lib.	Musm.	Others
A & H Sci.	EAD, CSDGM, MARC 21		CSDGM, MARC 21	CDWA, CIDOC, CSDGM	OLAC, TEI Lite
Social Sci.				VRA 2.0	ECHO, ECML, XrML
Bio.		CSDGM, HISPID, Species 2000			

Standards Used[2] – Others

- eLearning – IEEE's LOM (Learning Object Metadata)
- Gazetteer – ADL's GCS (Gazetteer Content Standard)
- All projects – Dublin Core

Standards Used[3] – Approach

- Adopt existing standard directly and prepare related best practices, or
- Develop Application Profile (AP)
- A hybrid approach: use existent metadata standards as a reference to customize them into various application profiles for a wide of requirements in NDAP.



MAAT

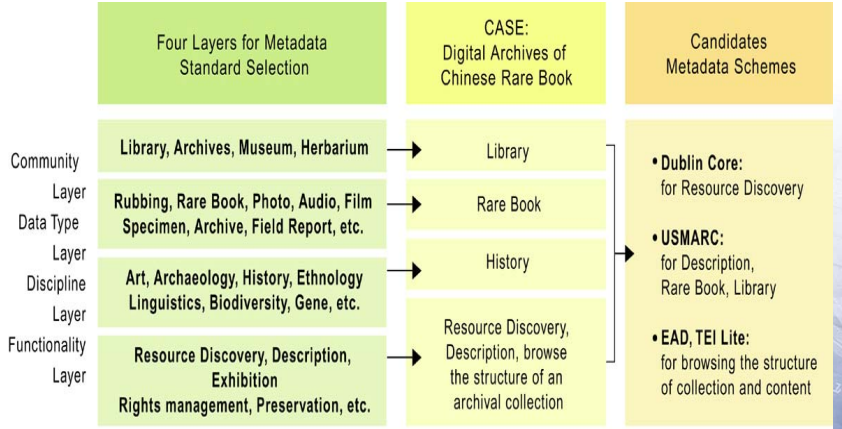
Major Achievements

- A Model for Metadata Standard Selection
- A Metadata Lifecycle Model: a content-based analysis
- Metadata – Information Interaction
- Generic Metadata Attributes
- Common Core Element Sets
- A two-parallel Strategy for cross-walking
- International Collaboration

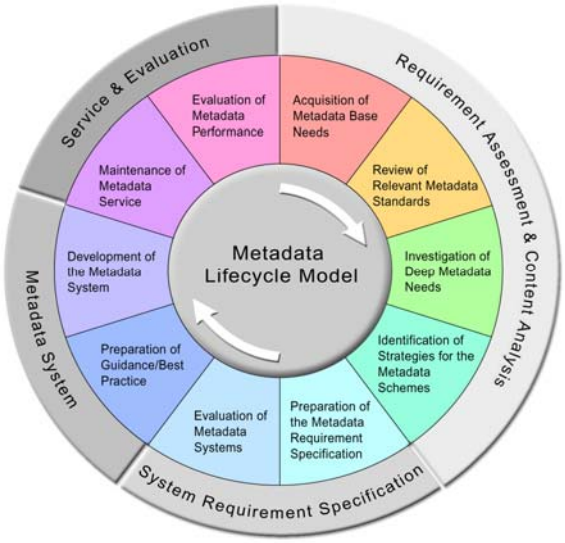
A Model for MD Standard Selection

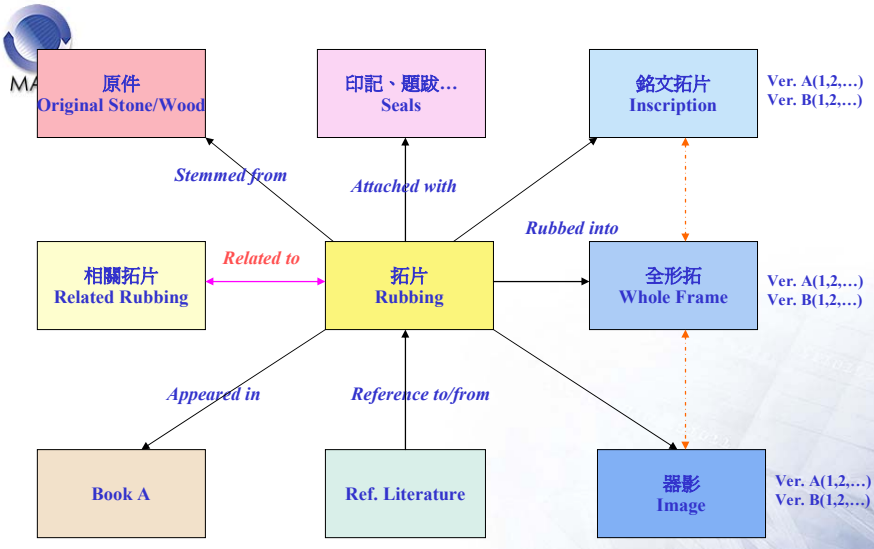
Community Layer	**Library, Archives, Museum, Herbarium**
Data Type Layer	**Rubbing, Rare Book, Photo, Audio, Film Specimen, Archive, Field Report, etc.**
Discipline Layer	**Art, Archaeology, History, Ethnology Linguistics, Biodiversity, Genomics,etc.**
Function Layer	**Resource Discovery, Description, Exhibition Rights management, Preservation,etc.**

The Four Layers and Exemplar for Metadata Selection

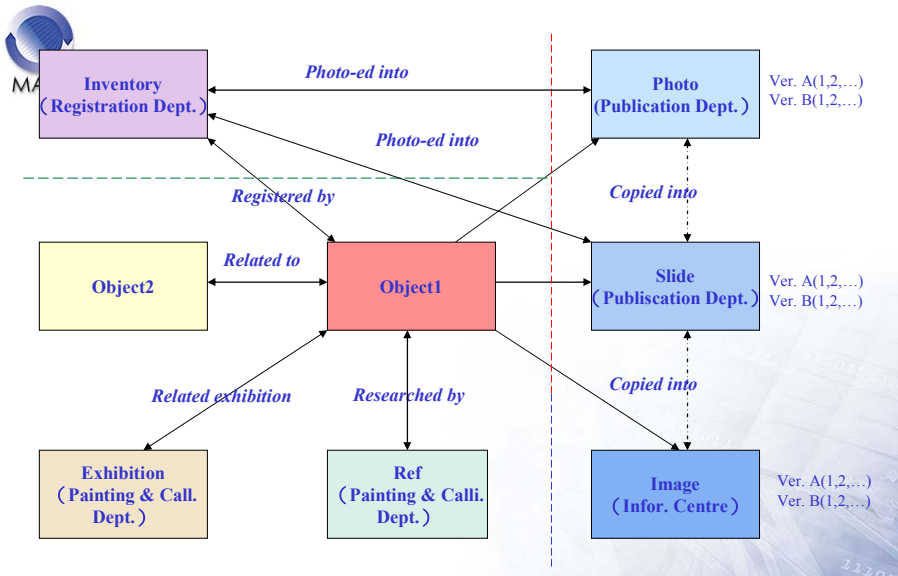


Metadata Lifecycle Model



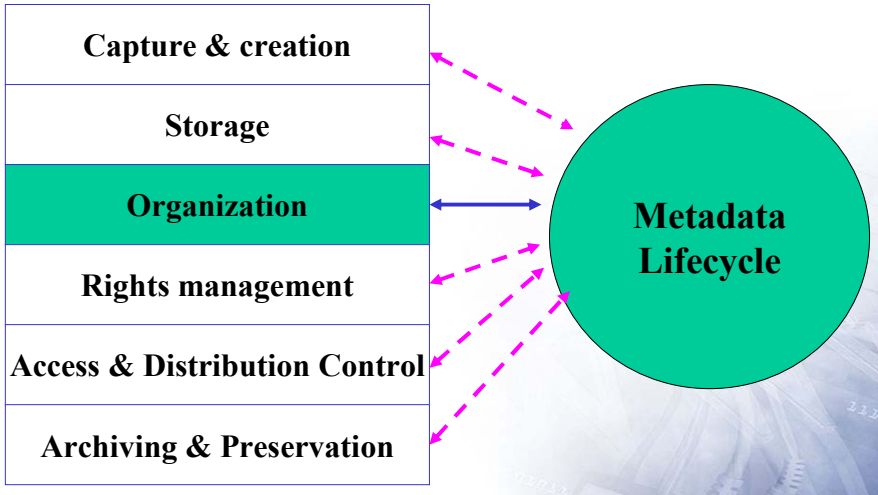


Content-based approach: Chinese Rubbings

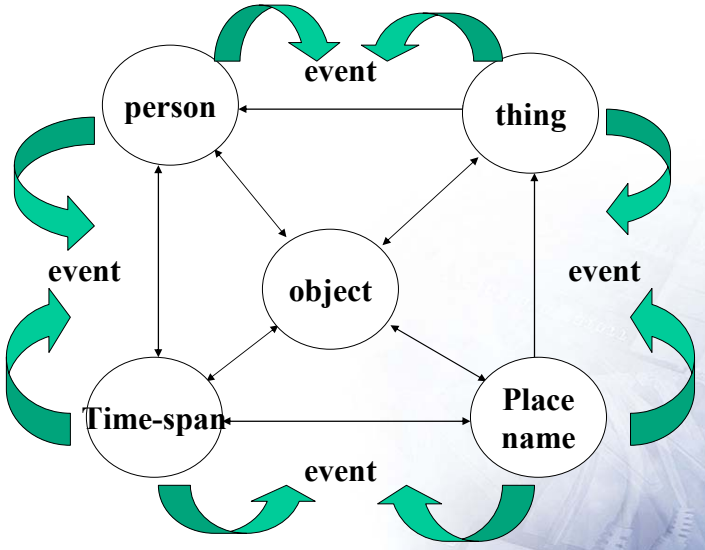


Content-based approach: artworks at NPM

Metadata- Information Interaction



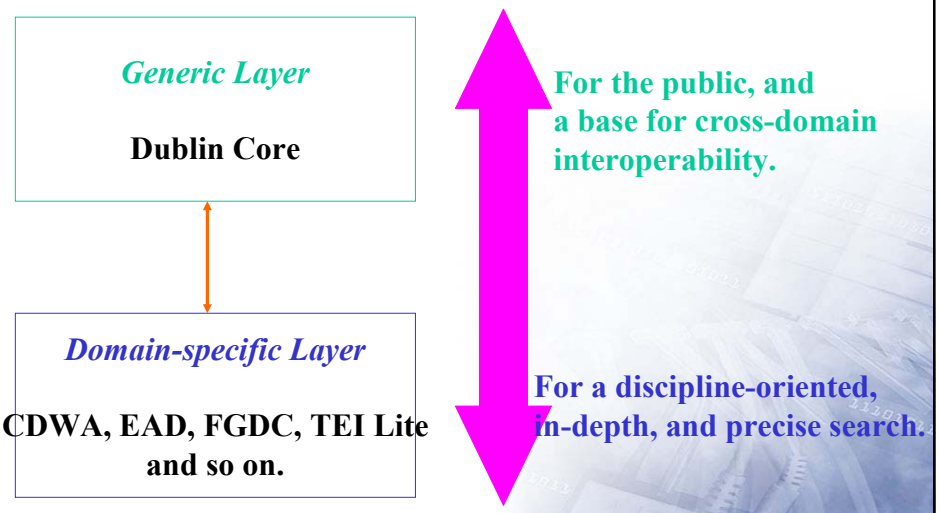
Generic Metadata Attributes



Common Core Element Sets

- Chinese Rare Book
- Archives
- Museum: is in process
- Zoology
- Botany
- Botany and Zoology
- Anthropology – in process by the Anthropology Thematic Group

Parallel Strategy



Standards – Intl' collaboration

- Copyright for Chinese version
  - ADL's GCS
  - CDWA
  - EAD
  - MIDAS
  - HISPID
  - OLAC – by The Linguistics Anchoring and Language Archive of Digital Archives
  - TEI Lite
- DLI2 – A multilingual gazetteer system for integrating spatial and cultural resources with ECAI.

Publications[1] – Conf. Paper

- Chen, Y.-N., Chen, S.-J., & S.C. Lin. (2003). A metadata lifecycle model for digital libraries: Methodology and application. Paper presented at World Library and Information Congress: 69th IFLA General Conference and Council, Aug. 1-9, 2003, IFLA. Berlin, Germany: ICC.

Publications[2] – Conf. Paper

- Chen, Y.-N., Chen, S.-J., Sum, H.-C., & S.C. Lin. (2003). Functional requirements of metadata system: From user needs perspective. Paper presented at DC-2003: Supporting Communities of Discourse and Practice: Metadata Research and Application, Sep. 28 – Oct. 2, 2003, Information School of the University of Washington, Dublin Core Metadata Initiative, University of Washington Libraries, and Information Institute of Syracuse, Syracuse University. Seattle, Washington: Bell Harbor International Conference Center.

Publications[3] – Conf. Paper

- Chen, Y.-N., Lin, S.C., & Chen, S.-J. (2002). An application practice of the IFLA FRBR model: A metadata case study at the National Palace Museum in Taipei. In Proceedings of the 65th Annual Meeting of the American Society for Information Science & Technology (pp. 181-193), Nov. 18-21, 2002. Philadelphia, USA: American Society for Information Science & Technology (ASIS & T).

Publications[4] – Conf. Paper

- Lin, S.C., Chen, Y-.N., & Chen, S.-J. (2001). A metadata case study for the FRBR model based on Chinese painting and calligraphy at the National Palace Museum in Taipei. Paper presented at DC-2001: International Conference on Dublin Core and Metadata Applications, Oct. 22-26, 2001. Tokyo, Japan: National Institute of Informatics.

Publications[5] – Conf. Paper

- Chen, Y.-N., & Chen, S.-J. (2001). A practical metadata approach towards Chinese rubbings. Paper presented at DRH-2001: Digital Resources for the Humanities, Jul. 8-10, 2001. London, UK: SOAS.

Publications[6] – Journal Paper

- Chen, Y.-N., & Chen, S.-J. (2004). A metadata practice of the IFLA FRBR model: A case study for the National Palace Museum in Taipei. Journal of Documentation, 60(2), 128-143.
- Chen, Y.-N., Chen, S.-J., Chiang, H.-Y., & Liu, C.-H. (2000). A case study in designing Chinese metadata. Online Information Review, 24(3), 229-233.

Publications[7] – Journal Paper

- Chen, Y.-N., Chen, S.-J., & Cheng, J.-R. (2004). The study of metadata for K12 e-Learning in Taiwan. Bulletin of Library and Information Science, 49, 14-68. (Chinese)
- Chen, Y.-N., & Chen, S.-J. (2004). An analytical review of metadata standards and practices in archives community. National Central Library Bulletin, 91(1), 29-57. (Chinese)

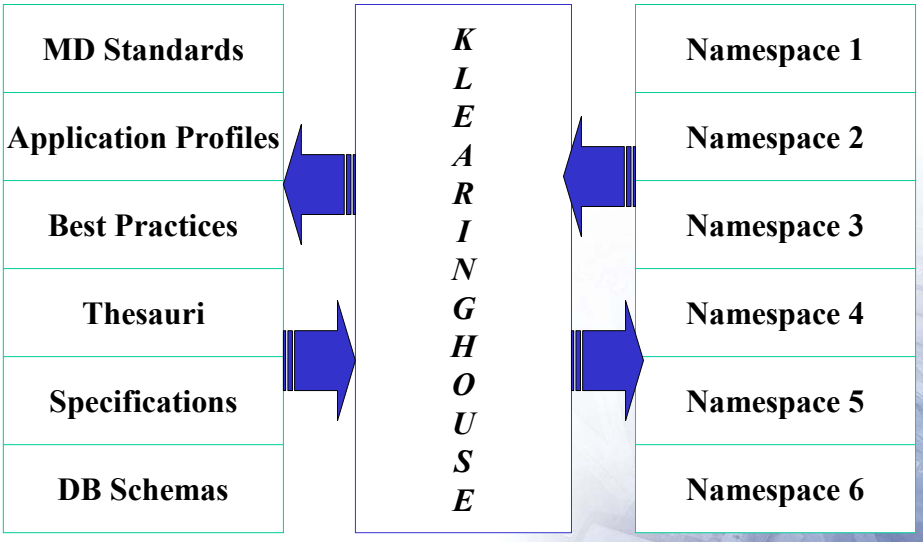
Publications[8] – Journal Paper

- Chen, Y.-N., Chen, S.-J., Sum, H-C., & Chung, F.-C. (2002). The needs assessment and development of metadata systems. Journal of Education Media & Library Sciences, 40(1), 102-127. (Chinese)
- Chen, Y.-N., & Chen, S.-J. (2001). Metadata for museum information: Development and analysis. Journal of Library & Information Science, 27(2), 52-66. (Chinese)
- Chen, Y.-N., Chen, S.-J., Chiang, H.-Y., & Tang, C.-C. (1999). Metadata practice for the digital library: A view from Academia Sinica. Journal of Library & Information Science, 25(2), 71-90. (Chinese)

Future Works

- **DIY Materials and Training Courses**
- **Best practices**
- **Metadata Klearinghouse (Knowledge-based Clearinghouse)**

Metadata Klearinghouse



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Thank for your attention, and welcome any comments!