The National Library of Korea as Part of the Global Dublin Core Community

Sam Gyun Oh
Sungkyunkwan University
Representing the National Library of Korea
samoh@skku.edu

Makx Dekkers
Dublin Core Metadata Initiative
mail@makxdekkers.com

Abstract
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Professor Sam Gyun Oh,
Sungkyunkwan University, Representing the National Library of Korea
samoh@skku.edu

Makx Dekkers,
Managing Director, Dublin Core Metadata Initiative
mail@makxdekkers.com

History of Dublin Core

• In October 1994, informal discussion at 2nd WWW Conference, Chicago

• Identified a need for a “core” set of descriptors to help discover content on the Web

• 1-3 March 1995, OCLC/NCSA workshop in Dublin, Ohio
Dublin Core: the idea

• A basic description mechanism that:
  - can be used in all domains
  - can be used for any type of resource
  - is simple, yet powerful
  - can be extended and can work with specific solutions

• Making it easier to find information wherever located (Internet/Intranets)

Interoperability aspects

• Core semantics
  - Dublin Core metadata elements, extensions and refinements, controlled vocabularies

• Shared data model
  - DCMI Abstract Model: underlying grammar

• Implementation agreements
  - Application Profiles (under construction)
Modular metadata: the Dublin Core vocabulary and model

Thomas Baker

The Play has the title “Antony and Cleopatra”, was written in 1606 by William Shakespeare, and is about “Roman history”.

![Diagram](IFLA 2006, Seoul Korea - Sam Oh and Maks Dekkers)
One-to-one Principle

Description 1

Description 2

Description 3

Three Descriptions in a Record

Record

Description A

Description B

Description C

...related to other resources
A basis for comparing syntax options

Example of Simple Dublin Core in XHTML

One model, many ways to implement

• Choose what’s best for you
  – HTML, XML, XHTML, Databases…: appropriate for different contexts

• Interoperability depends on shared model
  – Evolving guidelines for Dublin Core in HTML, XML, XHTML…
DCMI features

• Core semantics
  – The Dublin Core and related vocabularies

• Data model
  – Abstract Model a DCMI Recommendation since March 2005

• Application Profiles
  – Use core semantics
  – Based on the Abstract Model
  – Customize for specific purposes

Three legs of Interoperability

• Shared semantics
  – Everyone understands a Core

• Shared model (independent of syntax)
  – DCMI Abstract Model

• Content-level agreement
  – Same way to write a date (“2005-09-12”), a name (“Baker, Thomas”)…
Like a language

- **Small vocabulary** (like a pidgin)
  - Without shared words, no understanding

- **Basic grammar**
  - Without Subject – Verb – Object, no sentences

- **Jargons and styles**
  - Emerging agreement within communities

Core and extension vocabularies

- **Core-like RDF vocabularies**
  - SKOS Core: about knowledge systems
  - Dublin Core: about information resources
  - FOAF: about people and organizations
  - Shared underlying (RDF) model
  - Shared mechanisms for extensibility

- **Extension-like vocabularies**
  - Web as context for community creation of vocabularies
**DCMI as an organization**

- **Core elements** for describing information
  - Find, share, manage information

- **Formal framework** for interoperability
  - The “grammar” of metadata language

- **Support for communities**
  - Community usage in application profiles
  - Documentation for usage in different areas
  - Platforms for people to come together to share experiences.

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**Flexible modularity**

- Modularity, Flexibility, Reusability, Interoperability of Metadata

- Model-based re-combinability
Dublin Core Community

• Since 1995, workshops and conferences in USA, UK, Australia, Finland, Germany, Japan, Italy, China, Spain

• DC-2006: University of Colima, Mexico: 3-6 October 2006 in Manzanillo, Colima

• Participation from many sectors (libraries, research, governments, companies) and from more than fifty countries

Standardization

• 1998: Dublin Core Element Set version 1.0
• 1998: Internet RFC2413
• 1999: Dublin Core Element Set version 1.1
• 2000: EU Recommendation: CEN CWA 13874
• 2003: International standard: ISO 15836
• National standards and recommendations (e.g. Australia, Denmark, Netherlands, UK)
Dublin Core on the Web

• Successful standard on the Web

• Growing use in specific communities with high quality requirements:
  – Public Sector and Government Information
  – Corporate knowledge management

• May be seen as an essential building block for Semantic Web(s)

Dublin Core Metadata Initiative

• From group of interested volunteers to a more formal organization

• Governance structure (DCMI by-laws)
  – DCMI Board of Trustees
  – DCMI Directorate
  – DCMI Usage Board
  – DCMI Advisory Board
**DCMI Board of Trustees**

- **Membership**
  - Representatives of DCMI Affiliates
  - Three independent experts
  - One representative DCMI Host (OCLC)

- **Oversees the DCMI Directorate**
  - Strategic directions
  - Financial management

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**DCMI Usage Board**

- **Membership**
  - seven invited experts from range of domains, backgrounds and geographies

- **Manages the ‘orderly development of the Dublin Core standards’**
  - evaluates proposals from the community
  - maintains authoritative documentation
DCMI Advisory Board

- Currently 43 members, 14 countries
  - Working Group chairs
  - Affiliate representatives
  - Invited experts and liaisons

- Technical and operational advice
  - Coherence of work
  - Avoidance of conflicts
  - Technical reviews

DCMI operational model

- Basic philosophy:
  - basic results (standards, documentation) available for free, no usage restrictions
  - participation open to all, at no cost

- Community ownership
  - Voluntary effort from DCMI participants
  - Support from DCMI Host (OCLC)
  - Shared ownership: DCMI Affiliates
DCMI Affiliates

• National (or regional) organizations
• Represent stakeholder communities within their region
• Established on contractual basis (3/5 yr)
• Rights and responsibilities defined in Affiliate Agreement
• Annual Affiliate fees to fund central organisation and subcontracted work

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Affiliate activities

• Maintenance of local documentation
• National standardization
• Promotion and outreach to local community, feedback to global level
• DC-branded training and services
• Strategic influence through voting rights on DCMI Board of Trustees

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**Affiliate models**

- Finland, Singapore, Korea
  - National Libraries

- United Kingdom (consortium)
  - Museums, Libraries and Archives Council and JISC (higher education)

- New Zealand (consortium)
  - National Library, National Archives and State Services Commission (eGovernment)

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**Strengthening the value**

- **Challenges:**
  - Better identify community needs
  - Adapt organization to deliver value

- **Mission:**
  - Develop international, open standards for resource description and discovery
  - Support world-wide community
  - Promote widespread use of Dublin Core
DCMI Activities

- Standards maintenance and support
  - protect the core assets and maintain stability
  - provide documentation and implementation guidelines

- Forum
  - enable sharing of experience, solicit feedback and input for development and review processes

- Marketing and awareness
  - promote and explain (business cases, guidance)

Sharing Ownership

- Develop the Affiliate Program beyond current partners
  - Finland (2003), UK (2004), Singapore (2005), New Zealand (2005), Korea (2006)

- Investigate other funding options
  - grants, projects, sponsorship

- Based on small central organization, value for money

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DCMI Relationships

• Internal partnerships:
  – DCMI Affiliates and Host
  – DCMI Participants and contributors

• External liaisons:
  – Other standards organizations (IEEE-LOM, W3C, OASIS, CEN)
  – Implementers, vendors, consultants, service providers

The National Digital Library (NDL) of Korea

• NDL Vision

  – Implementing an environment that enables users to perform integrated searching of all the digital libraries in the world and functioning as a comprehensive library portal.

  – NDL intends to build collaborative partners with world DLs and to manage high quality digital assets available in the world and provides users with easy access to them.
**NDL Operating Principles**

- 7 NDL Operating Policies
  - Providing a portal service that guarantees easy access to high quality resources without physical boundaries.
  - Offering easy and comfortable search interface to the system.
  - Observing international standards to ensure interoperability among other DLs in the world.
  - Continuing to build a large digital collection to provide quality services to users.
  - Employing a collection development policy based on participation and sharing.
  - Investing in long-term preservation of digital assets and provides retrieval services to them.
  - Keeping abreast with the next generation technology to provide better services to users.

**The Role of The National Metadata Center**

- Maintaining the official translation of DCMI documents in Korean.
- Providing a leadership as the national library
- Developing necessary standards and tools for libraries exploiting semantic web technology.
- Keeping an eye on emerging international standards that affect library services and actively participating international standard developments.
- Operating the national metadata and ontology registry that anyone can look up before they implement any application profiles.
- Supporting metadata and ontology research to publish annual guidelines.
The National Library of Korea
http://www.nl.go.kr/

The Dublin Core Metadata Initiative
http://dublincore.org/

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