



Dublin Core<sup>®</sup> Metadata Initiative

*Making it easier to find information.*

# Dublin Core: Process and Principles

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Stuart Weibel has worked in the Office of Research at OCLC (Online Computer Library Center) since 1985. He has been active in Internet standards work for fifteen years and for ten years played a leadership role in the Dublin Core Metadata Initiative.



- 500,000 addressable objects on the Web in 1995 (<http://dublincore.org/about/history/>)
- In 2008, Google announced it had found one trillion unique URLs. This is a two million fold increase ([googleblog.blogspot.com](http://googleblog.blogspot.com))
- There needs to be a common standard to describe the variety of information resources available on the internet.



# What is DC?

- **Language.** Dublin Core is often presented as a modern form of *catalog card* -- a *set* of elements (and now qualifiers) that describe resources in a complete *package*.
- **Pidgin.** Dublin Core presents itself as a metadata pidgin for digital tourists who must find their way in this linguistically diverse landscape.



# Mission

- Provide simple standards to facilitate the finding, sharing and management of information.
- Developing and maintaining international standards for describing resources
- Supporting a worldwide community of users and developers
- Promoting widespread use of Dublin Core solutions



# Principles

- Open consensus building
- International scope and participation
- Neutrality of purposes and business models
- Neutrality of technology
- Cross disciplinary focus
- The One-to-One Principle
- The Dumb-down Principle
- Appropriate values



- DCMI traces its roots to Chicago at the 2nd International World Wide Web Conference, 1994.
  - Yuri Rubinsky of SoftQuad
  - Stuart Weibel and Eric Miller of OCLC
  - Terry Noreault, Director OCLC Office of Research
  - Joseph Hardin, Director of the NCSA)
- Discussion on semantics and the Web revolved around the difficulty of finding resources (difficult even then, with about 500,000 addressable objects on the Web).



# History - Birth

- NCSA and OCLC holding a joint workshop to discuss metadata semantics in Dublin, Ohio, March 1995.
- Since that time conferences and workshops have been held in England, Australia, Finland, Germany, Canada, Japan, Italy, and the United States.





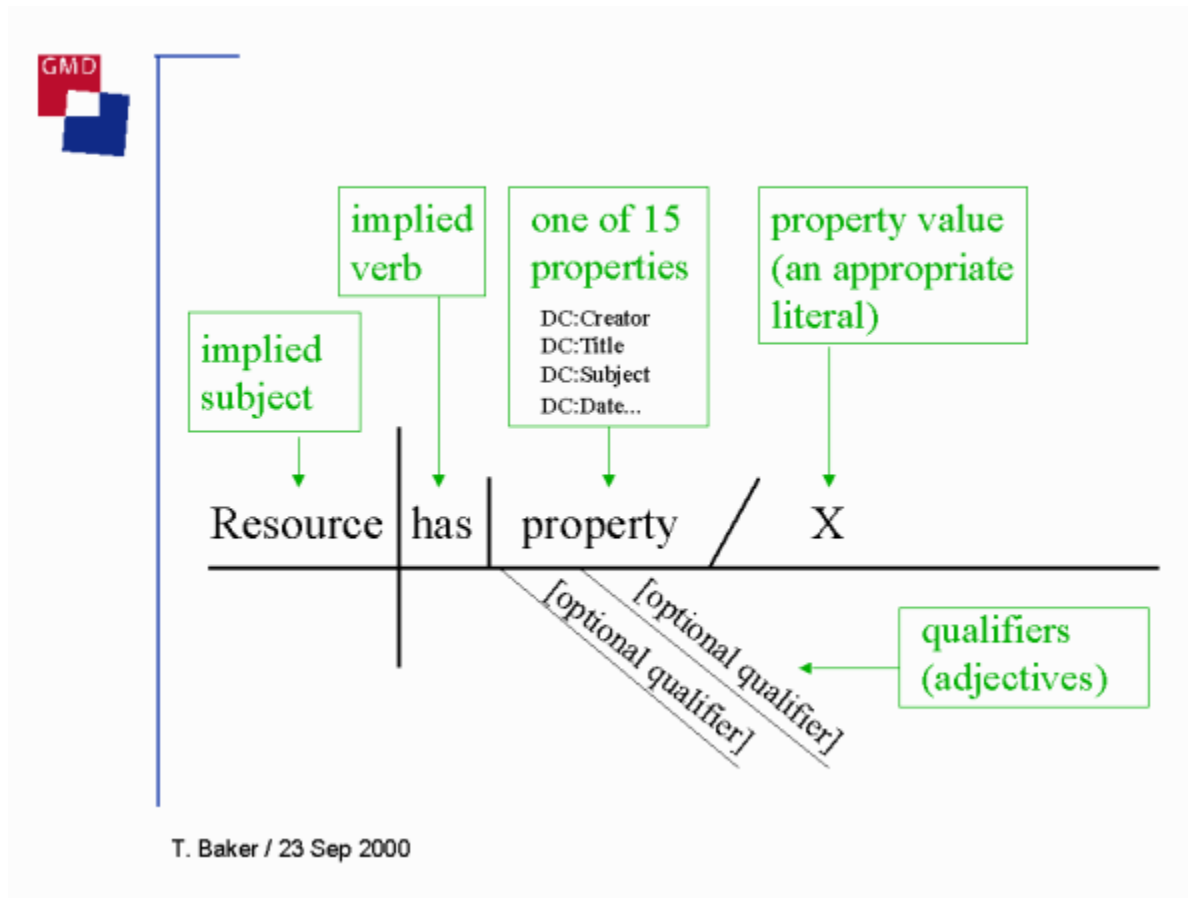
- The Simple Dublin Core Metadata Element Set
  1. Title
  2. Creator
  3. Subject
  4. Description
  5. Publisher
  6. Contributor
  7. Date
  8. Type
  9. Format
  10. Identifier
  11. Source
  12. Language
  13. Relation
  14. Coverage
  15. Rights
  
- Each element is optional and may be repeated.

# Qualified DC

Element	Element Refinement	Encoding Scheme
Title	Alternative	
Subject		LCSH, MeSH, DDC, LCC, UDC
Description	Table of Contents, Abstract	
Date	Created, Valid, Available, Issued, Modified	DCMI Period, W3C-DTF
Type		
Format	Extent	
	Medium	IMT
Identifier		URI
Source		URI
Language		ISO 639-2, RFC 1766, RFC 3066
Relation	Is Version Of, Has Version, Is Replaced By, Replaces, Is Required By, Requires, Is Part Of, Has Part, Is Referenced By, References, Is Format Of, Has Format, Conforms To	
Coverage	Spatial	DCMI Point, ISO 3166, DCMI Box, TGN
	Temporal	DCMI Period, W3C-DTF
Audience	Mediator	

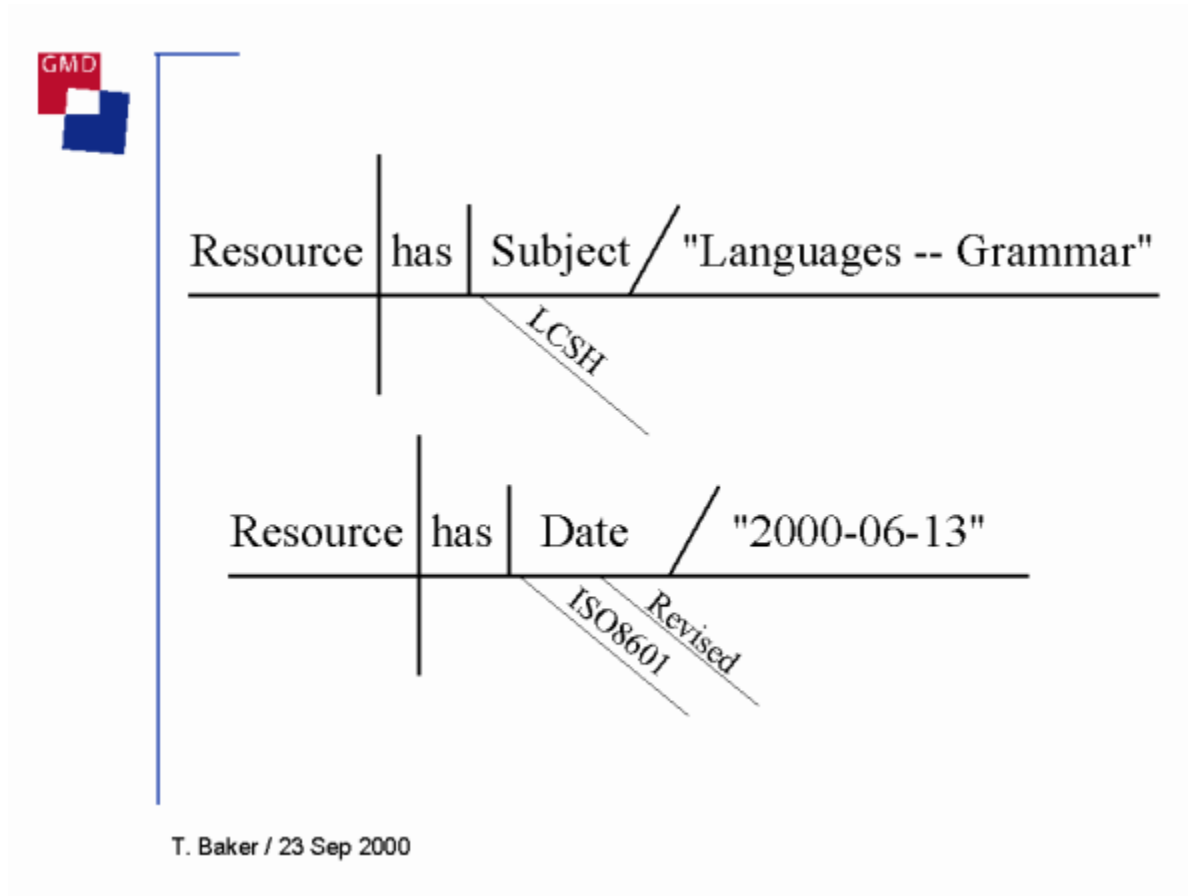


# Tag Structure





# Example





```
<meta name="DC.Title"  
  content="Dublin Core Metadata Initiative  
  Home Page">  
<meta name="DC.Language" content="en">  
<meta name="DC.Contributor"  
  content="Dublin Core Metadata Initiative">  
<meta name="DC.Date" content="2001-01-16">  
<meta name="DC.Date.modified" content="2010-  
  10-16">  
<meta name="DC.Format" content="text/html">
```



```
<?xml version="1.0"?>
<metadata xmlns=http://example.org/myapp/
  xmlns:xsi="..." xsi:schemaLocation="..."
  xmlns:dc=http://purl.org/dc/elements/1.1/
  xmlns:dcterms="http://purl.org/dc/terms/">
  <dc:title>UKOLN</dc:title>
  <dcterms:alternative> UK Office for Library and Information
    Networking </dcterms:alternative>
  <dc:description>UKOLN is a national focus of expertise
    in digital information management...</dc:description>
  <dc:publisher>UKOLN, University of Bath</dc:publisher>
  <dc:identifier>http://www.ukoln.ac.uk/</dc:identifier>
</metadata>
```



```
<?xml version="1.0"?>
<rdf:RDF xmlns:rdf=http://www.w3.org/1999/02/22-rdf-syntax-ns#
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:dcterms="http://purl.org/dc/terms/">
<rdf:Description> <dcterms:abstract>The paper resolves the issues of the
  data model draft. </dcterms:abstract> </rdf:Description>
<rdf:Description>
<dc:creator>Karl Mustermann</dc:creator>
<dc:title>Algebra</dc:title>
<dc:subject>mathematics</dc:subject>
<dc:date>2000-01-23</dc:date>
<dc:language>EN</dc:language>
<dc:description>An introduction to algebra</dc:description>
</rdf:Description>
</rdf:RDF>
```



- In 2001, the workshop format was broadened to include tutorials and peer-reviewed conference papers and posters
- Over 1500 subscribers from more than 50 countries
- Registry provides definitions in more than 20 languages





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# Current Usage



- <http://dublincore.org/projects/>
- <http://glifos.cah.utexas.edu/index.php/Special:UserLogin>
- <http://glifos.cah.utexas.edu/index.php/TexOilIndustry:To20>



# Questions?

- Do you think the Simple DC metadata elements are sufficient as a general scheme for information resources?
- Why do you think DC has not been more widely adopted on the Web specifically and the Internet more generally?
- What ways could motivate individuals or institutions (public or private) to fully adopt these or other metadata standards?