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Web Accessibility and Metadata

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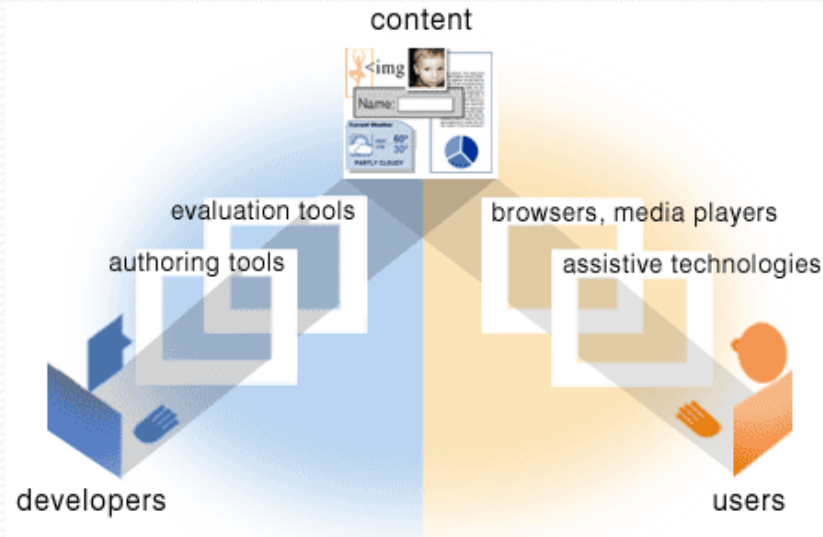
Web Accessibility

- W₃C Web Accessibility Initiative
(<http://www.w3.org/WAI/>)
- Provides guidelines for accessible websites
- Accessibility?
 - Means that people with disabilities can use the Web
 - Also benefits others, e.g. older people
 - Several different components of Web development and interaction work together well to produce an accessible site



Web Accessibility (2)

- **Components**



Source: W3C WAI

- **Techniques (examples)**

- Online shopper with colour blindness - user customised style sheets
- Reporter with repetitive stress injury - keyboard equivalents for mouse commands, access keys
- Online student who is deaf - captioned audio from multimedia

Source: W3C WAI

Metadata

- Data about data
- “Meta”
 - Greek for "after", "beyond", "with", "adjacent", "self" (Source: Wikipedia)
- In HTML, metadata is often used to provide information about the webpage, owner, date of creation, etc.
- This is again invisible information
- So why have it?
- Search engines often use metadata to find out what content a webpage has to offer, so that the search engines can index it
 - Only indexed pages can be found in a search query

Metadata (2)

- Again defined by W3C (<http://www.w3.org/Metadata/>)
- This work led to the development of the **Resource Description Framework** (RDF, <http://www.w3.org/RDF/>)
 - Standard model for data interchange on the WWW
- In recent years, there has been a lot of talk about the **Semantic Web**, which is a web of data
 - Example (from W3C)
 - There is lots of data we all use every day, and it is not part of the web
 - I can see my bank statements on the web, and my photographs, and I can see my appointments in a calendar
 - But can I see my photos in a calendar to see what I was doing when I took them? Can I see bank statement lines in a calendar?
 - No? Because we don't have a web of data. Because data is controlled by applications, and each application keeps it to itself.

Dublin Core Metadata Initiative (DCMI)

- Open organisation engaged in the development of interoperable metadata standards (Source: <http://dublincore.org/>)
- Describes levels of interoperability

➤ 4: Description Set Profile Interoperability

- Shared formal vocabularies and constraints in records

➤ 3: Description Set syntactic interoperability

- Shared formal vocabularies in exchangeable records

➤ 2: Formal semantic interoperability

- Shared vocabularies based on formal semantics

➤ 1: Shared term definitions

- Shared vocabularies defined in natural language

Source: <http://dublincore.org/metadata-basics/>



Metadata in HTML

- `<meta>` tag
- Has two fields **name** and **content**
`<meta name="Some Name" content="Some Content">`
- Can define any name and content we like, but...
- ... search engines look for names recommended by the *W3C Dublin Core* (<http://dublincore.org/>):

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN">
<HTML>
  <HEAD>
    <META NAME="DC.Creator" CONTENT="Roland G&ouml;lke">
    <META NAME="DC.Title" CONTENT="Interspeech 2008">
    <META NAME="DC.Subject" CONTENT="Interspeech 2008 homepage">
    <META NAME="DC.Description" CONTENT="Interspeech 2008 homepage">
    <META NAME="DC.Type" CONTENT="Text">
```

Dublin Core Metadata in HTML

- The *Simple Dublin Core Metadata Element Set* (DCMES) consists of only 15 metadata elements

Element	DC Metadata tag	Example
Title	DC.Title	<code><meta name="DC.Title" content="IIT / IIT G Website" /></code>
Creator	DC.Creator	<code><meta name="DC.Creator" content="Roland Goecke" /></code>
Subject	DC.Subject	<code><meta name="DC.Subject" content="Website for 4478 / 8936" /></code>
Description	DC.Description	<code><meta name="DC.Description" content="University unit homepage" /></code>
Publisher	DC.Publisher	<code><meta name="DC.Publisher" content="University of Canberra" /></code>
Contributor	DC.Contributor	<code><meta name="DC.Contributor" content="Girija Chetty" /></code>
Date	DC.Date	<code><meta name="DC.Date" content="2012-02-21" /></code>
Type	DC.Type	<code><meta name="DC.Type" content="Text" /></code>
Format	DC.Format	<code><meta name="DC.Format" content="text/html" /></code>
Identifier	DC.Identifier	<code><meta name="DC.Identifier" content="iit_iit_g_2014_s1" /></code>
Source	DC.Source	<code><meta name="DC.Source" content="https://learnonline.canberra.edu.au" /></code>
Language	DC.Language	<code><meta name="DC.Language" content="en" /></code>
Relation	DC.Relation	<code><meta name="DC.Relation" content="http://www.canberra.edu.au" /></code>
Coverage	DC.Coverage	<code><meta name="DC.Coverage" content="Australia" /></code>
Rights	DC.Rights	<code><meta name="DC.Rights" content="http://www.canberra.edu.au/copyright" /></code>