Revision

- Last lecture looked at MARC as a specific, albeit early, example of complex metadata.
- Some problems specific to this standard were raised
  - Very complex structure
  - Variable-length fields
  - Repeatable fields
  - Sparse population of structure
  - Tape-based standards

Reading

[also see his article “So what is a content management system” http://www.steptwo.com.au/kmc_what/index.html from June 2003, and other CMS related papers]

Web-site management

- A web site needs
  - Content
  - Design/Architecture
  - Management for
    - Consistency
    - Of presentation to users
    - Retrieval of results
    - Loading material
    - Removing and archiving material
    - Re-use of material

Outline

- Web-site management
- Template based systems
- Content Management Systems
- Work-flow and CMS
- Implementing CMS

Separation of Form and Content

- HTML/the Web are predicated on the notion of separating content and form,
- But there is an expectation of web “authors” to be efficient in both,
- And an expectation that material will be presented in a professional business-like consistent manner and content will be of a professional standard.
Component architecture

- Separates content from the presentation format
- The same information can be delivered using various formats, depending upon the site user’s needs and interests.
- Dynamic serving of content builds pages on-the-fly as they are requested

Template based system - Advantages

- Consistency of appearance
- Corporate image
- User familiarity
- Easy to make changes
- Content creators don’t have to worry about style, layout, perhaps architecture

Specialised activities

- Web management and design and architecture should be the domain of web managers, designers and information architects.
- Content should be the domain of those who know about content

Template based system - Disadvantages

- Boring
- Often a compromise design, lacking any extreme identifying features
- Formulaic
- Can be difficult to “enforce”
- Lack of individuality, of specific “branding”
- Content creators can feel they are operating like hack writers

Centralized control of site design elements

- Designers should design
- Authors should develop content
- When a site design team controls decisions about page layout, colors, fonts, navigation, and graphical elements, branding consistency is assured.
- More adherence to other corporate standards.
- Important when content providers are located in remote offices.

Content Management Systems

- These are systems that are used
  – to deal with content and presentation separately, then
  – to merge and manage content, design, architecture, archiving, deletion.
- The term is now almost exclusively applied to Web [and intranet] content.
**Definition of Content Management System**

Software that enables one to add and/or manipulate content on a Web site. The features of a CMS system vary, but most include:
- Web-based publishing,
- format management,
- revision control, and
- indexing, search, and retrieval.

**Features of a CMS**

- Delivers up-to-date, accurate, and personalized content to various target audiences.
- Supports content providers in:
  - regularly making changes,
  - adding new content or
  - updating existing material.
- Ensures that materials:
  - are displayed only when they are current, and
  - removed when they become out-of-date.
- Supports fast approval of content for timely delivery.
- Enables personalized content to match the needs, interests, and language of the individual user.

**2 Elements – CMA and CDA**

- The content management application (CMA) element allows the content manager or author, who may not know HTML, to manage the creation, modification, and removal of content from a Web site without needing the expertise of a Webmaster.
- The content delivery application (CDA) element uses and compiles that information to update the Web site.

[jhmcis.jhmi.edu/standards/webguidelines/glossary.cfm](http://jhmcis.jhmi.edu/standards/webguidelines/glossary.cfm)

**Content authors should be able to**

- Create materials using standard desktop applications, integrating image, video, and other types of media.
- Post to the Web using pre-built design templates with correct formatting and corporate branding elements.
- Create new content, or revise existing materials, without involving technical resources.
- Be empowered to keep content up-to-date and be able to directly post content to a staging environment.

**Content Management Scheme**

- Many issues associated with content management, including:
  - usability,
  - information architecture and
  - information management.
- Actively involve staff throughout the organisation in:
  - content management,
  - as reviewers and
  - administrators.
- Integrating with (or modifying) many business processes.

**Automated scheduling - publishing and archiving**

- Calendaring allows content providers to determine when content is published on the site and when it is removed.
- CMS automates this process so that date-sensitive information is available only while relevant.
- No one in the organization has to remember when to post or eliminate site content.
Work-flow and CMS

• The process of getting content into the CMS needs to be managed.
• Authors create content in the context of the authorised templates that have previously been developed.
• The content has metadata generated/added by the author and then
• A reviewer checks the content, may add more metadata, and finally
• The material is published and other content added to the CMS database.

Before implementing the CMS

• Constrain initial project scope
• Minimise custom development
• Identify areas of greatest risk
• Build internal capabilities and knowledge
• Improve organisational information management
• Plan to reassess CMS suitability
• Learn from the experiences of others

A workflow process for content approval

• Routing of materials for approval should follow a predictable process.
• Non-automated processes are subject to human error, resulting in the omission of essential reviews.
• Often when a mistake is discovered, several employees must take time to remove and replace the erroneously posted material.
• More importantly, the posting of inaccurate Web content can impact the organization’s credibility or even its income.

Implementing CMS

• Implement the CMS as part of a broader information or knowledge strategy.
• Implementation involves all the challenges the introduction of a relatively new and immature product brings.
• Interrelate the CMS to other information systems, such as document and records management.
• Allow for long-term viability of the system and supporting processes by “future-proofing” the implementation.

From current site to CMS

• Current site [intra or internet presence] may lack structure, coherence, contain duplicated material, contain out-dated information, have incorrect information, and be managed in an ad hoc fashion.
• Use the move to a CMS to address these issues

Migrating content into the CMS

• Conduct a content audit.
• Use the opportunity to migrate to a new site structure if appropriate
• Check to ensure that all content has an owner
• Consider rewriting content if necessary
• Consider user-centred design to ensure that the site best meets users’ needs
Non-technical issues

- Focus on content management processes
- Consider an appropriate governance model
- Consider change management and internal communications
- Develop a network of stakeholders

CMS @ Monash

- An effort towards management of a very large web site 300-500k web pages.
- Adjunct to existing Web services, using Interwoven’s Teamsite and Metatagger.
- CMS materials on a “standard” relational database

Version archiving and an audit trail

- Provides a record of site changes
- Time and effort can be saved if authors can refer back to a previous version of a Web page
- Cutting and pasting copy from an earlier version can speed the creative process, or quickly correct an error
- Webmaster is able to determine who has made which changes on the site
- Full site audit for legal reasons

CMS @ Monash

- Staged implementation – Law, then Education, then Library, then Monash International, etc.
- Designing metadata to meet specific Monash needs
- Needed/needs more resourcing

Dynamic Web pages

- Content is easily served up in formats appropriate to various browsing devices when it is stored separately from its format.
- Pages can be compiled on the fly when they are requested.
- Separating content and presentation ensures that your site will look right, regardless of the device a user to access it.

Objectives

- Make it easier for authors to create and maintain sites
- Enable a consistent look and feel
- Enable an approval process
- Enable timeliness and currency
- Provide audit trails and roll back
- Enhance discovery
- Enhance security
**TeamSite and Metatagger**

- Best fit for the requirements overall
- Ability to manage metadata
- Ease of use for authors
- Ability to implement a logical information architecture
- Ability to migrate into the system at our chosen pace
- Used by some other tertiary institutions

**Teaching the system**

- A major feature of the *Interwoven* application is that the system can be “shown” about 12 documents of a specific type, and the common elements are able to be automatically set as defaults for metadata content.

**Next Tutorial**

- Looking at some metadata authoring/editing tools.
- Raising some issues about metadata content