

# Factors in Selecting a Digital Asset Management System:

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# Overview

- Collected vendor names for list to send RFI
- Sent RFI to 60 vendors
  - Integrated Library Systems (ILS)
  - CMS (Content Management Systems)
  - DAM (Digital Asset Management Systems)
  - CDN (Content Distribution Networks)
  - Integrators
- 32 vendors responded
- Analyzed vendor responses as well as open source products
- Sent RFP to 10 vendors
- 5 vendors responded
- Selected vendor with experience in industry, but not in libraries or academia

## External Factors

- Dotcom explosion
- Dotcom implosion
- Knowledge management

# Dotcom explosion

- Software market
  - Creation of software to manage Web sites, digital assets and share content over the Internet
  - Lots of companies with highly specialized software
- Academia
  - Perceived competition from content sites and Internet universities
  - Desire to move content to the Web to facilitate access; OAI
  - High salaries outside of academia cause brain drain

# Dotcom implosion

- Software market
  - Mergers/bankruptcies
  - Blurring of distinctions among vendor products
  - Increased competition for new accounts
- Academia
  - Layoffs make stability of academia attractive to corporate IT managers
  - Loss of dotcoms makes academia an attractive market to software vendors

# Internal Factors

- University's strategic plan
- Merger of libraries, academic computing, student information systems, telecommunications
- Technologies favored
- Legacy system
- The RFI/RFP Process

# University's strategic plan

Content creation for digital archives focused on university's urban initiative

- Collections to support study of Los Angeles as an urban center; mostly images
- Proposed geo-spatial browser as one search interface to provide spatial context for content
- Collaboration with external agencies seen as important in gaining access to this content

# The Merger

- Leadership and staffing changes
  - Influx of staff who had worked in industry
  - Influx of professional managers both on IT and library sides of the house
  - Key vacancies left knowledge gaps
- Changes in organizational philosophy
  - “Buy” not “build” shop
  - Look to broader range of vendors for software
  - Change in definition of “large customer base”
  - Emphasis on formal project management structure



# Structural challenges

- Changed reporting lines for digital information management
- New people in key positions
- Lack of consensus on whether “library” is collaborator or customer among IT staff
- Low-profile of digital library projects within ISD
- Competition with other projects

# Favored Technologies

- Sun Solaris as OS
- Oracle as RDBMS
- Apple OS for scanning
- Windows for cataloging
- Java
- XML
- Tiff as storage
- Mr.Sid as large image viewer

# Legacy System

- SIRSI Unicorn using BRS and Z39.50 server to create database for metadata
- Use WebCat for search & display
- FTP images and series of programs creates derivatives & metadata
- One developer responsible for everything and he's retiring

# Vendor categories

- Integrated Library Systems (ILS)
  - Endeavor, Innopac, SIRSI
- Content Management Systems (CMS)
  - Broadvision, Interwoven, Vignette, Percussion, Stellent
- Digital Asset Management Systems (DAM)
  - Documentum, Artesia, FileNet
- Content Distribution Networks (CDN)
  - Akami, Digital Island
- Integrators
  - Accenture, Deloitte Touche, Cap-Gemini

# Integrated Library Systems

- Database schema structured for library standards out of the box (MARC and Dublin Core)
- Z39.50 searching
- Awareness of emerging library standards like the OAI
- Web-based search interfaces for public use
- Support of library functions such as:
  - Acquisitions
  - Cataloging
  - Circulation
  - Inter-library loan
- Built with authority control in mind

# ILS Strengths & Weaknesses

- Strengths
  - Use of “library” standards
  - Focus on library community
  - Library personnel are familiar with the vendor
  - Low cost if adding to an existing system
- Weaknesses
  - Proprietary databases & architectures
  - Can’t route content
  - Small user base
  - Slow to adopt new technologies
  - Limited customization possible

# Content Management Systems

- Content reuse & templating (banners, text, buttons)
- Manage Web pages and their relationship to each other and directory structure
- Manage and control approval processes for content
- Link management
- Upload new and edited pages to the Web server
- Retrieve content from a repository and present it dynamically or deploy it as a static Web page
- Search a repository for content
- Personalization

(Boiko 2001)

# CMS Strengths & Weaknesses

- Strengths
  - Templates for data entry and display
  - Routing with workflow approval process
  - Easy to move content from the desktop to the Web
  - Emphasis on newer technologies and open architecture
- Weaknesses
  - Authority control and the capability to define and use metadata
  - Not designed for search and retrieval of content



# Digital Asset Management Systems

- Asset capture and digitization
- Asset management
- Access control including security tools and digital rights management
- Flexible storage that allows assets to be reused
- Distribution to the appropriate individuals internally and externally
- Publication to the Web or other channels

(Trippe 2001)

# DAM Strengths & Weaknesses

- Strengths
  - Flexible database schema, some flexibility in interface configuration
  - Security & digital rights management are key components
  - Capability to route content for review
  - Large install base outside of academia with a variety of needs
- Weaknesses
  - Complex
  - Different standards used
  - Designed for intranets
  - Authority control is an add-on

# Content Distribution Networks

- Functions related to the publication/broadcast of content
- Transport protocols for pushing content
- Protocols for harvesting content
- Security protocols to enable transport and harvesting
- Network connectivity, caching and load-balancing

(Mears 2002)

# CDN Weakness

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- Narrow set of functions that assume that the content has been created and is being managed using something else.

# Integrators

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- Consulting firms that build systems for customers from existing software to fulfill a specific set of requirements.
- Roots in financial systems consulting

# Integrators Strengths & Weaknesses

- Strengths
  - They build what is specified and customize software to meet specific needs
- Weaknesses
  - Expensive
  - Recommend software based on what they know, not on how well it fits with your needs

# The RFI/RFP Process

- Challenges with the process
  - Favors selection of commercial software over open source
  - Favors vendors who are better organized and better staffed
- Challenges with the evaluation
  - Level of granularity in requirements
  - Involving the right decision makers in the process
  - Prioritization of requirements

# RFI Showstoppers

<b>Requirement</b>	<b>Factor</b>
Workflows and approval processes	Collaboration with external agencies; University Strategic Plan
Flexible templates for data entry and display	Collaboration with external agencies; University Strategic Plan
Capability to allow external applications to search and retrieve content	Dotcom explosion



# RFI Showstoppers

<b>Requirement</b>	<b>Factor</b>
Referential integrity	Legacy system
Management of derivatives	Legacy system
Operating system	Favored Technologies; Sun OS
Client platform	Favored technologies; Use of Apple OS & Windows
XML support	Favored technologies; XML

# RFI Showstoppers

<b>Requirement</b>	<b>Factor</b>
Database support for Oracle 9i	Favored technologies
Versioning and rollback	Legacy system

# Open Source and/or University Created

Looked at ADL, DLXS, Cheshire II, D-Space, DLESE, Greenstone, Perseus, Virtual Data Center

Generally found:

- Extensive customization requiring commitment of developer to meet our requirements
- Public documentation insufficient for decision making
- Lack of “reliable” support model if software does not function as promised

Scores for these packages were comparable with vendors whose software required excessive customization

# Challenges moving forward

- Docu who?
- Complexity of new system
- Lack of resident expertise
- Interpretation of requirements
- Interpretation of design document
- Finishing this before we start something else

# Future Uses

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- Institutional Repository
- Course Management
- Virtual Collections

# Institutional Repository

- Means to allow faculty to store and retrieve content they have created for research purposes
- Rights management functions
- Push content to other systems
  - E-journal publication
  - Reference works
  - Course management systems
  - University Web site

# Course management

- Route readings and syllabus through curricular committees
- Route thesis and dissertations through appropriate committees
- Route student work to appropriate teaching assistants and faculty
- Place all content in a life cycle; expire content at the end of a semester; archive student work

## Contact Information

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