



Carnegie Mellon University

Content Management Systems & Hosted Applications

Content Management Systems

- Fast, easy, lower cost ways to create and maintain information on the web
- The alternatives to build-it-yourself HTML

Types of CMSs

- Portals
- Blogs
- E-commerce
- Intranets / Groupware
- Discussion boards
- Guestbooks
- Mailing lists
- E-learning
- Image galleries
- Wikis
- Calendars
- Customer relationship management (CRM)
- Document workflow management
- Polls and surveys
- Project management

Architecture of a typical CMS

- Programming
 - PHP, PERL, Java, VB.NET, ASP.NET, Plone
- Database
 - E.g. MySQL, PostgreSQL, Oracle, SQL Server
- Display
 - HTML, Cascading Style Sheets (CSS)
- Content
 - User generated

CMS Benefits - Features

- Comes with immediate capabilities, e.g.
 - Calendaring
 - Document management
 - Authentication
 - Membership management
 - And other functions from previous slide
- Easy to install
- Easy to update
- External support can be hired for problems

CMS Benefits - Sustainability

*Technically simple
Frequently updated*

- Content
 - Updateable by user organization
 - Without requiring HTML skills
- Display
 - Typically have templates to choose from
 - More customized look can be done once
- Programming / Database
 - Updated regularly by vendor, or FOSS community
 - Specialized help can be hired for only these upgrades

*Technically harder
Infrequently updated*

Auberle

- Serves children and families through:
 - Foster care placement
 - Residence for children
 - Educational programs
- Wanted to support communication among their board of directors
- Deployed by student consultant Spring 2005
 - As of Sep 2009, still in use
- Used eGroupWare (FOSS)

Mathru School for the Blind

- To support fundraising
- TCinGC Summer 2008
- www.mathrublindschool.org
- Used Joomla CMS
- Used template from www.cmslounge.com/

Content Management example

- Customer Relationship Management system
- CRMs are relied heavily upon in business
- Also useful for any management of relationship information
 - Collaborators
 - Partners
- CiviCRM is an FOSS project

Education example

- Moodle - deployed by student consultants:
 - (Like Blackboard)
 - Local elementary school
 - Cook Islands Ministry of Education

Where to find CMSs

- cmsmatrix.org
 - To compare of features of a large # of CMSs
- opensourcecms.com
 - To try demonstration sites using CMSs
- Wikipedia
 - (http://en.wikipedia.org/wiki/Comparison_of_content_management_systems)

Commercial CMSs

- Benefits of Commercial CMS
 - More consistent help-desk support
- E.g. Vignette (> \$15K)
 - Spun out of from CNET's internal development
 - Large set of current clients, e.g.
 - Ball State University
 - HP, Motorola, Sun
 - State of Connecticut's Retirement and Benefits Services Division

Commercial CMS

- E.g. Microsoft Sharepoint
 - Full functioned
 - But a confusing and potentially expensive set of requirements of
 - Windows Server
 - Windows SharePoint Services
 - Office SharePoint Server 2007
 - Office SharePoint Designer 2007
 - Potential:
 - Requesting free copy from Microsoft University Relations
 - Problem: Lock in, a problem when there are new releases.

Software options - FOSS

- Free and Open Source
 - Lower initial costs
 - Typically updated by a community of developers
 - But sometimes, a single person
 - You need to research how big and stable that community is.
 - Support via on-line community forums
 - Sometimes commercial support available

Software options - Commercial

- Higher initial costs
- Updated by a company
 - Which may sometimes be a single person
- You need to research how stable that company is
 - How are they doing in the market
- Company should provide support
 - Often also have community forums
 - Support may be fee-based

Levels of hosting service

- Own server
- Web hosting service
- Application hosting

Own server

- Can run any FOSS or commercial software you like
- Often higher total-cost-of-ownership
- Higher security risk
 - If fall behind with software updates

Hosting service

- Low monthly or yearly fees
- No server maintenance required
- Install your own applications
 - Requires expert knowledge to update
- With application installation support
 - (e.g. Fantastico)
 - Update often works without expert knowledge

Fantastico screenshot

- Navigation
 - [Fantastico Home](#)
 - [Control Panel Home](#)
- Blogs
 - [Nucleus](#)
 - [pMachine Free](#)
 - [WordPress](#)
- Content Management
 - [Drupal](#)
 - [Geeklog](#)
 - [Joomla](#)
 - [Mambo Open Source](#)
 - [PHP-Nuke](#)
 - [phpWCMS](#)
 - [phpWebSite](#)
 - [Post-Nuke](#)
 - [Siteframe](#)
 - [TYPO3](#)
 - [Xoops](#)
- Customer Relationship
 - [Crafty Syntax Live Help](#)
 - [osTicket](#)
- Discussion Boards
 - [SMF](#)

Fantastico

Use Fantastico to automatically install any of the scripts listed on the left. Installing any script will use one of your available MySQL databases. Removing any script will free up one of your used MySQL databases.

Click on any of the items on the left to get more details.

UPDATE NOW!

Following installations are not up-to-date. Keep your installations secure and up-to-date and ensure that future versions of Fantastico will be able to maintain your installations by updating now.

	Installed Version	Upgrade Link
Drupal		
Location		
/d	4.7.0	Upgrade to 4.7.3
WordPress		
Location		
/global	2.0.2	Upgrade to 2.0.4

Application hosting

- Higher per-user subscription fees
 - Often have entry-level free accounts
- No maintenance fees
- No maintenance expertise required
- They support the application

East Liberty Development Inc.

- Non-profit Community Development Corporation
- Does real estate development
- Needed a way to coordinate project management while rehabilitating multiple properties
- Used hosted solution Ace Project
 - www.aceproject.com

SalesForce

- Hosted Customer Relationship Management (CRM) application
 - I.e.
 - Keeping track of donors
 - Keeping track of clients or constituents
 - Keeping track of members
- Salesforce Foundation
 - Provides free licenses to qualifying U.S. non-profit organizations
 - So no server, no software, no maintenance needed
- We started using Salesforce for our CP management
 - So far:
 - Robust, reliable, latency is good
 - Only use 10% of functionality, so have to keep turning off functions that I don't need (e.g. donor management)
- Lock-in risk:
 - currently expected to be free forever.
 - All data can be exported as a Comma Separated Value (CSV) file

Ning

- Ning.com
- Provides social networking support
- Customizable look, own IP name
- Features: blogs, photos, videos, forums, RSS feeds, and more
- E.gs
 - Education City Emerging Technologies Group
 - E-Learning For Life: Staff development and networking at Qatar Academy
 - Doha Librarians Connection

Google Apps

- www.google.com/apps
- Features
 - Gmail
 - Google Talk
 - Google Calendar
 - Start Page
 - Google Docs
 - Page Creator
- Free / fee

Specialized hosted apps

- YouTube
- Facebook
- Flickr

... Other you use?