

Drupal and Winona360

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What is Drupal?

- CMS - Content Management System
(drupal.org)
- Build a website with more structured organization than a wiki
- Other CMSes - Joomla, ExpressionEngine, other products can function as a CMS:
Wordpress (blogging) and MS Sharepoint (document management)

Drupal Usage

- Obama campaign website, current White House website (whitehouse.gov)
- Winona360
(<http://edutech.tlt.winona.edu/winona360/>)

Strengths of Drupal

- Designed for multiple users from the ground up
- Strong development community manifests itself in two ways
 - get your questions answered by a vibrant development community
 - large infrastructure of extensions (modules/themes)

Modules in Drupal

- Main unit of customization in Drupal -- functional component
- Cover almost every functionality you can think of -- “there's a module for that”
- Installation profile: collection of modules that form an "application" of Drupal
 - OpenPublish is one such profile: Winona360 built on this profile

Themes in Drupal

- Main unit of customization in Drupal -- presentational component
- Themes consist templates that contain blocks (that themselves can contain template code) that correspond roughly to DIVs on a web page, which are then styled by CSS
- Main tip here: you can build a theme as a "subclass" of another theme -- Winona360 theme is built this way upon OpenPublish default theme
- Easily create themes with a WYSIWYG tool called Artisteer (Artisteer.com) -- good for quick and dirty themes

Spotlight Modules in Drupal

- Enhanced Forum, Admin Menu - builds upon already existing functionality in Drupal
- Other modules integrate with LDAP/Active Directory login, UI widgets, RSS feed integration, WYSIWYG editing
- Most powerful modules for creating content: CCK, Views

CCK+Views+Themes (Demo)

- CCK - Content Creation Kit: allows construction of complex content types (non-relational), structured form-based entry of content makes it easy for non-technical users to enter content
- Views - complex module with hideous interface that lets you express structured displays of content types -- a "query builder" that lets you create lists of content types on a page, block or RSS feed
- Views allow us to create Blocks that can be placed anywhere on a page
- Drupal also has an extensive API that abstracts away a lot of the underlying database that holds the content (Authors block)

OpenPublish, Winona360 and the Semantic Web

- OpenPublish installation profile includes many modules created by Phase2 Technology
- Specialized application of Drupal for building News and Journalism sites
- Modules interface with OpenCalais web service -- modules analyze content semantically and submit it to OpenCalais to generate tags for the stories and related suggested content

Tips and Tricks

- OpenPublish profile VERY resource hungry -- site died at one point, spent some time making optimizations to MySQL configuration
- Made heavy use of conditional blocks and changing the home page on Drupal
- Extensively used Firebug as theming tool -- most of the Winona360 Drupal theme is built with CSS

Tips and Tricks

- RSS feed integration thru Feed Object, which creates content from RSS feeds -- allows Winona360 to evolve as a "blog network" -- one of the principles of "citizen journalism" is to "give everyone a blog"
- Optimized site page-loading performance with YSlow extension -- principles based on O'Reilly book "High Performance Web Sites"