

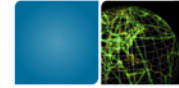
Creating Research Web Sites with Drupal

Randy Carpenter & Steven Akins,

May 25, 2010 – TSO Brown Bag Course

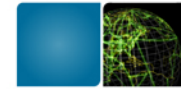


Last Revision:
May 24, 2010



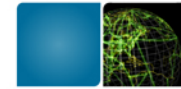
Introduction

- Randy Carpenter, Lead of TSO Research Program Support Group
- Steven Akins, TSO Web Developer
- Will be tutorial-style and interactive so feel free to ask questions
- We have about 45 mins, but will stay until 1PM if there are lots of questions
- Today, we'll cover:
 - Terminology
 - Web Services at Georgia Tech
 - Current state of CoC Research Group web pages
 - We'll build a research group web site from the ground up
 - How-to's for creating your own research group site
 - Test Case: Systems Lab (<http://www.cc.gatech.edu/Systems>)
 - Objective: To make a basic site...perfection takes more time.
- Intended Audience: Web Site Maintainers for...
 - Research Centers
 - Research Labs
 - Research Groups
 - Research Projects
 - Externally facing pages
 - And, internal group collaboration pages



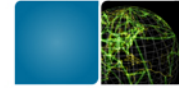
Terminology

- Web 2.0 technologies:
 - *The term "Web 2.0" (2004–present) is commonly associated with web applications that facilitate interactive information sharing, interoperability, user-centered design, and collaboration on the World Wide Web. Examples of Web 2.0 include web-based communities, hosted services, web applications, social-networking sites, video-sharing sites, wikis, blogs, mashups, and folksonomies. A Web 2.0 site allows its users to interact with other users or to change website content, in contrast to non-interactive websites where users are limited to the passive viewing of information that is provided to them. –Wikipedia*
- Web Content Management Systems:
 - *A Web Content Management System (WCM, WCMS or Web CMS) is content management system (CMS) software, implemented as a Web application, for creating and managing HTML content. It is used to manage and control a large, dynamic collection of Web material (HTML documents and their associated images). A WCMS facilitates content creation, content control, editing, and essential Web maintenance functions. –Wikipedia*
- Group Collaboration Software?
 - *Group collaboration software provides tools for groups of people or organizations to share information and coordinate activities. . . . These tools typically include member and email list management, a shared address book, shared calendar, project/task management, a shared file system, and tools for online collaborative document creation such as wikis, blogs, discussions boards, etc. Some services offer a suite of integrated tools while others focus on delivering a single solution like shared file storage. –Wikipedia*
- PHP – a widely used, general-purpose scripting language for dynamic web pages
- Drupal – A “free”, open-source content-management system (CMS) written in PHP
 - Modules – plug-ins that allow new features and custom behavior extending Drupal's core capabilities
 - Themes – allow non-coders to easily customize the aesthetic "look and feel" of a site



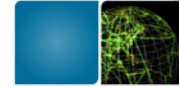
GT Web Services

- OIT Web Services
 - New “Metro3” server **almost** in production (<http://www.oit.gatech.edu/initiatives/georgia-tech-hosting-services>)
 - ISP-quality, plesk-based
 - Can install self-managed Drupal, Mediawiki, WordPress, etc.
- TSO Web Services (<http://support.cc.gatech.edu/services/web-hosting-cgi-access>)
- TSO Enterprise Web Services:
 - External CoC web page - <http://www.cc.gatech.edu/> (content managed by CoC Communications Group)
 - CoC Intranet - <http://intranet.cc.gatech.edu/> (content managed by CoC Administrative Departments)
 - Legacy, static HTML sites (mostly older research sites)
 - Personal web pages (e.g. <http://www.cc.gatech.edu/~randy>)
 - Coming Soon: Drupal + Mediawiki “multi-site” (for Administration + Research) - Managed differently than OIT
- TSO Instructional Web Services
 - T-Square (service managed by OIT, but TSO can assist with requests)
 - PHP + MySQL + SVN (new services for courses)
- TSO Research Web Services
 - Research Community-Maintained Group Collaboration Server (<http://collab.cc.gatech.edu/>)
 - Centers, Labs, groups, projects – Externally facing web pages
 - Centers, Labs, groups, projects – Internal group collaboration pages
 - Content maintained by research groups (some sites are using Dreamweaver, FrontPage, etc.)
 - Mediawiki - <http://wiki.cc.gatech.edu/>
 - Drupal - <http://research.cc.gatech.edu/>



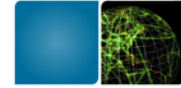
What is Drupal?

- A free, open-source content-management system (CMS) written in PHP
- Currently, very popular choice for GT web sites (GT, CoC, OIT, DLPE, more)
- Out of the box, the Drupal Core, is very basic
 - Site customization is needed to obtain desired look-and-feel and features
- Basic features that are built-in:
 - Individual **user accounts** with **role-based** permission / privileges, content creation
 - Create and manage **multi-level menus**
 - Customize page layout, via **blocks**
 - Blogs + Forums + Search + RSS + Software Update Notification + More
- Extending Drupal is accomplished through the addition of **Modules** and **Themes**
- TSO Research extensions to the basic features:
 - GT Account support via LDAP Authentication modules (you may hear us say “GTED” or “GRS”)
 - GT + CoC + CS + CS + IC themes installed, in addition to basic Zen theme
 - Freelinking + WYSIWYG Editors + Administration Theme
- Pros + Cons of CMS vs. Static HTML sites
- Easy-of-use, Content Management System technologies:
 - facilitate more frequent updates, resulting in fewer stale sites
 - allows easier, more secure, more widely-available login access (using GT Credentials)
 - make it easier to update content (using browser based editing)
 - New features can be implemented quickly, using open-source modules, but need to be maintained



Getting Started...

- Fill out our Drupal Request Form (<https://support.cc.gatech.edu/resources/forms>)
- Once created, you will receive an automated e-mail with vital details
- You will be automatically subscribed to drupal-users@cc.gatech.edu
- USER 1 is the “Master” administrator, it’s the only account capable of upgrading the site
 - You can then create new users (not really necessary if you requested GT credentials)
 - Grant administrator permissions, if desired
- Perform basic site configuration – Follow our How-to – this will be automated in the future
- Add any desired modules + configure
- Select desired theme (we recommend the [GT theme](#) to start)
- Remove built-in login block (if desired)
 - Add a more subtle login link if you prefer
- Site Building Phase
 - Create Menus
 - Add blocks
- Finally, you are ready to copy and paste your content
- Perform Software Updates when asked by the system or by TSO (using USER 1)
- Send questions to drupal-request@cc.gatech.edu
- Or, schedule 1-on-1 site-building meetings with TSO Research group



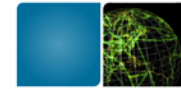
Site Building – Basic Configs

- To save time, we have already setup our test site with basic recommended configuration
- /net/ac901/webroots/drupal/sites/edu.systems - install your own modules and themes
- Go to Administer / User Management / User Settings
 - Select “Only Admins can create new user accounts”
 - Enable **User Pictures**
- Go to Administer / Site Building / Modules, and enable these modules
 - **LDAP Authentication, Data and Groups**
 - **Administration Menu**
 - **FreeLinking** (very wiki-like linking), **WYSIWYG**, and **Search**
- Activate GT Credentials with LDAP module (TSO must do this step)
- Go to Administer / User Management / Roles, select GTED group and grant permissions
- Go to Administer / User Management / Permissions
 - Enable access to **Administration Menu** for all logins
 - Enable access to others (**FreeLinking, WYSIWYG, Search**) for all logins, enable search for anonymous + all logins
- Go to Administer / Site Building / Themes, Enable GT Theme, make it the default theme
 - Enable Search + Slogan
- Go to Administer / Site Configuration / FreeLinking, make “Page” default for new content
- Go to Administer / Site Configuration / Input Format, enable “FreeLinking Filter”
- Go to Administer / Site Configuration / WYSIWYG, make “TinyMCE” the default



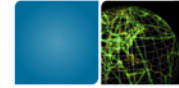
Site Building – Make the Home Page

- Customize the Main / Home Page
 - Dynamic – Blog Style
 - Static– Basic group description only...Most CoC Research pages are this type
- Make a static home page node
 - Go to Create Content / Page and remember the node number (first page will be “node/1”)
 - Copy + Paste the main page text
- Go to Administer / Site Configuration / Site Information
 - Make “node/1” the front page
 - Add site **Name** and **Slogan**....we’re still working on logo support in the header.
- Go to another browser to simulate a site visitor
- Notice the user login block (should be invisible to visitors), and Admin Menu are viewable
 - Go to Administer / Site Building / Blocks / User Login, then set it to None
 - You can login later at <http://research.cc.gatech.edu/systems/user>
 - Create a subtle login link later
 - Go to Administer / Site Building / Blocks
 - Set Navigation to None to hide the basic Drupal navigation menu
- For dynamic / blog style pages,
 - Go to Create Content / Page, copy + paste the main page text, promote it to the front page, make it sticky at top
 - Notice that only partial main page is displayed
 - Go to Administer / Post Settings, change “Length of Trimmed Posts” to “unlimited”
 - Re-save the front page article to let the new trimmed setting take affect (quirky)



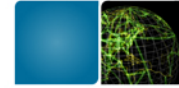
Site Building – Making Menus

- First, tell Drupal to place menus on the Support Column for Primary Navigation
 - Go to Administer / Site Building / Blocks
 - Set Primary Links to Support Column for Primary Navigation
- Next, make base landing pages for your menu clicks
 - Go to Create Content / Pages (or <http://research.cc.gatech.edu/systems/node/add>)
 - People – (click the Menu Settings drop down, name Menu, choose Primary Links, set menu item weight)
 - Research
 - Courses
 - Labs
 - Links
 - FAQs
- Go to Administer / Site Building / Blocks
 - Set Search to Utility Navigation
 - Add Block - Contact Information + add to Secondary Content Column
 - Add Block – Mailing Address + add to Secondary Content Column
 - Add Block - Footer List - Contact Us, Intranet, College of Computing, Georgia Tech Home, Address
 - Make this an unordered list



Advanced Topics

- Explore more modules
 - Blog
 - Nice Menus (drop downs)
- Add Blocks
- Embed a MyGatech public calendar
- CoC/CS/CSE/IC – Sub-theme development
- Manage Technical Reports via SmarTech
- Add Mercury Feed and Faculty Profiles



References

- Web 2.0 – Wikipedia
 - http://en.wikipedia.org/wiki/Web_2.0
- Group Collaboration – Wikipedia
 - http://en.wikipedia.org/wiki/Group_collaboration
- Web content management system
 - http://en.wikipedia.org/wiki/Web_content_management_system
- TSO Enterprise Web Services
 - <http://support.cc.gatech.edu/services/web-hosting-cgi-access>
- TSO Research Community Group Collaboration Services
 - <http://collab.cc.gatech.edu/>
- OIT Current Web Hosting Services :
 - <http://www.oit.gatech.edu/service/webhosting/web-hosting>
- OIT Hosting Services Initiative:
 - <http://www.oit.gatech.edu/initiatives/georgia-tech-hosting-services>
- GT Library SmartTech:
 - <http://smartech.gatech.edu/>
- GT Theme 6.x
 - <http://drupal.gatech.edu/wiki/georgia-tech-theme-6x>
- GT Mercury News and Event Feed:
 - <http://hg.gatech.edu/>