Getting Started with Drupal

Rachel Vacek and Nina McHale
ALA Annual Conference
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Slides available at: slideshare.net/vacekrae

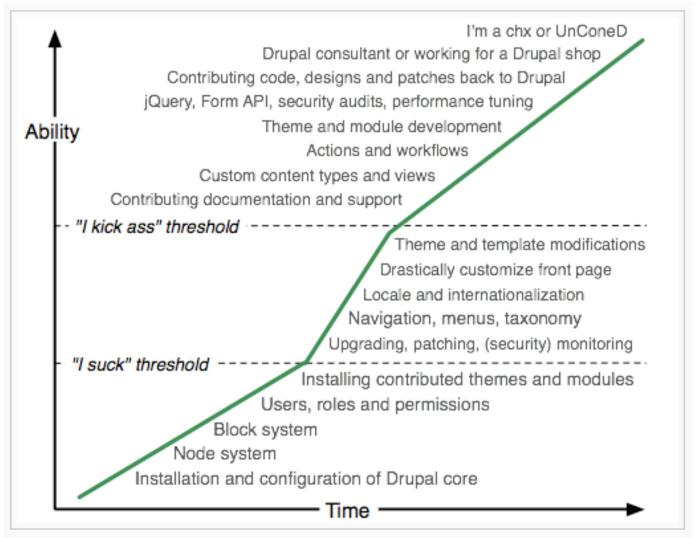
30-Second Introductions

- Your name, title, affiliation
- What's your role in library web development?
- What web development tools are you currently using?
- What do you want to do with Drupal at your library?

Our Objectives Today

- To become more conversant in Drupal speak
- To learn how to manage and maintain a basic Drupal site
- To learn about new themes and modules most often used by libraries
- To cross the "I suck" threshold...

Drupal Learning Curve



http://buytaert.net/drupal-learning-curve

Schedule

Introduction & Content 9:00-10:30

Morning break 10:30-10:45

• Users & Themes 10:45-12:00

• Lunch 12:00-1:30

• Modules 1:30-3:00

Afternoon break 3:00-3:15

Maintenance & Security 3:15-4:30

Drupal: What is it?

 An open source content management system (CMS)

- Created by Dries Buytaert
- Web standards-friendly
- Timeline/history
 - Dorp → Drop → Drupal
 - derived from the Dutch word"Druppel" which in English means "Drop"
 - Drupal was born in January 2001
- Version 7 released in January 2011

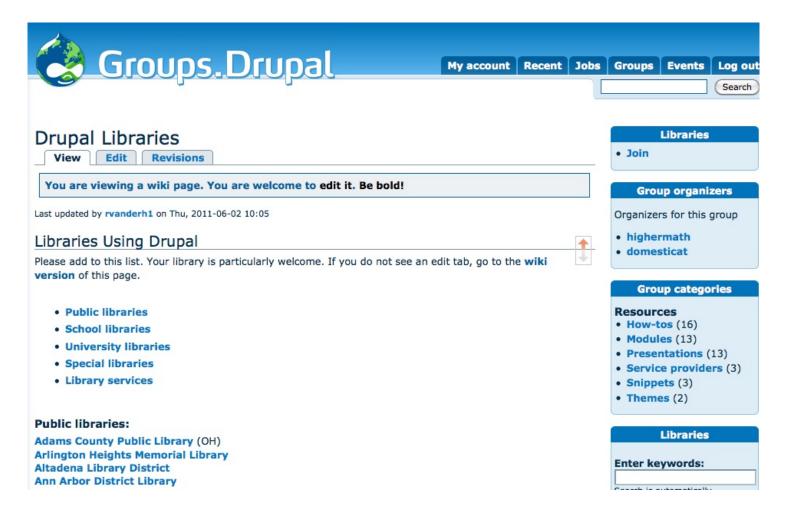
Drupal: Why Libraries Love It

- Easy to deploy a robust web site quickly and easily
- Easy to include many elements of social networking
- Makes customizing library tools for local specifications easy
 - ILS
 - Discover Layer/metasearch tools
 - LibGuides

Open Source: Good for Libraries

- Active community of users and developers
- Develop modules that can be shared
- Libraries are expected to do more and more online
- Libraries without in-house programming support can quickly deploy robust sites
- Libraries with programmers can create and contribute modules
- Actively participating in open source communities can save everyone time, headaches, and effort

TONS of libraries are using Drupal



Acquia Drupal

- Drupal core bundled with commonly used modules that won't change over time
 - Drupal v6.17: 3.38MB
 - Drupal v7a5: 8.51MB → lots more included :)
- Convenience for preconference setting

Drupal UX

- Steep learning curve

 takes time to get across the "I suck" threshold
- More development flexibility than other open source CMSs like Wordpress or Joomla!
- Drupal 7 improves the CMS user experience over previous versions

Drupal Terminology

Sers Scontentmenus users modules CCK Sers nodes taxonomy story

Repeat after me...

The Drupal Glossary is my friend.

The Drupal Glossary is my friend.

The Drupal Glossary is my friend.

http://drupal.org/glossary

Example Sites

- Auraria Library
 - library.auraria.edu
 - Site for medium-sized academic library
- Colorado Libraries
 - coloradolibrariesjournal.org
 - Online journal for state library association
- University of Houston Libraries
 - info.lib.uh.edu
 - Site for medium-sized academic library

A Note About Presentation Format

- Each major area will consist of
 - Concepts
 - Just the basics about each topic
 - Examples
 - Examples from live Drupal 6 & 7 sites
 - Good, and, uh... "could-do-better"
 - Hands-On
 - Quick activities, time- and wireless-permitting
- TDF Module
 - "To-Die-For" Module
 - Insanely helpful modules that you should know about

Your Site: A Tour

- Open a browser and point it to http://localhost:8082
- We will:
 - Review Dashboard-Modules
 - Make some changes to the site configuration
 - Take a quick look at the Drupal file structure

Content: Concepts

- There are 2 default content types in Drupal 7
 - Article (time-sensitive information)
 - Basic page (static information)
- Custom content types can be created
- Content is added via online forms
- Managing URLs
 - Specific paths can be set to content

Drupal Term: Node

- A node is a piece of content in Drupal, typically corresponding to a single page on the site
- Every node also belongs to a particular content type, and can additionally be classified using the taxonomy system
- Examples of nodes are polls, stories, book pages and images

Content: Concepts

- Content exists in "nodes"
- Think of nodes as structured pieces of content on the site, such as
 - A database listing in a directory of databases
 - A post in a library's news blog
 - The text of a library policy posted online
- These different things, and anything you can think to create, are "content types"

Content: Concepts

- Options for your home page content
 - Static content
 - Create a page that displays desired content
 - Set as homepage: Configuration => Site Information
 - Dynamic
 - Use "promote to front page" box to display content on the home page
 - A combination
 - Use blocks to display both static and dynamic content

Content: Examples

- Custom content:
 - ADI/staff directory
 - Colorado Libraries article

Content: Examples

	View Edit Devel
	LexisNexis Academic
iformation Entry	Title: *
	LexisNexis Academic
	Url:
s Blog Ilog shind the News Blog	http://0-www.lexisnexis.com.skyline.ucdenver.edu/hottopics/li
	Alternate Url:
nd the News Blog	http://www.lexisnexis.com/hottopics/lnacademic
mmunication Blog munication Blog	Provider:
	Lexis Nexis
	Description:
urce	

Content: Examples

Home » 8,000 Books Ethiopia Bound: The Colorado Connection 8,000 Books Ethiopia Bound: The Colorado Connection nes Edit View Title: * 8,000 Books Ethiopia Bound: The Colorado Connection DRS Byline: tor lanet Lee Split summary at cursor Body: Each morning as I walked into town to begin my volunteer/sabbatical work at the Segenat Children and Youth Library in Mekelle, Ethiopia, I was comforted by the mountains that surrounded me and the clear blue skies overhead that reminded me of home. As a "semi-

Each morning as I walked into town to begin my volunteer/sabbatical work at the Segenat Children and Youth Library in Mekelle, Ethiopia, I was comforted by the mountains that surrounded me and the clear blue skies overhead that reminded me of home. As a "seminative" of Colorado, I relished the cool nights after the warm days that living at this altitude would bring. There were heavy rains during the rainy season, but just like in Colorado, the mud turned to dust as soon as the sun came out. Water is and will always be an issue. The prickly-pear cactus grew wild and was often used as a fence or a border, separating houses or fields of grain. It bore a delicious fruit known locally as "Belas" and was sold by street vendors at bus stops and street corners. At times the terrain, even in town, was difficult to navigate. It seemed that no matter which direction one was headed, it was always uphill. Imagine a horse pulling a cart filled with materials, the traditional method of transportation since there were few personal vehicles and few paved streets, attempting to navigate these rocky roads. On one trip to a nearby mountain village, I thought I was "off-roading" in the mountains of

Content: Hands-On

- Create an "About" page with lorem ipsum text
 - Click on Content → Add Content → basic page
 - Fill out the required fields
 - Look at additional options for changing the URL
 - Look at publishing options, and be sure your article is published and promoted to the front page
 - Click Save

Content: Hands-On

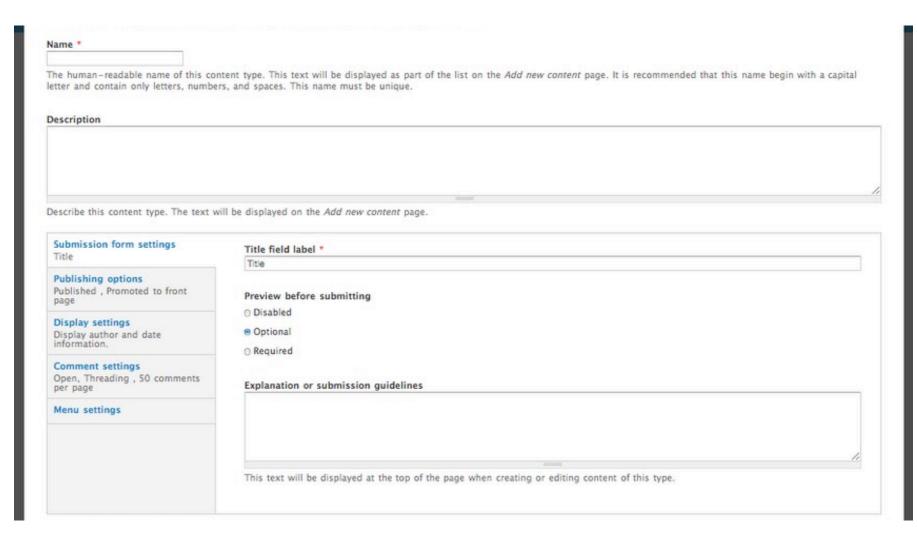
- Create a "Library News" article
 - Click on Content \rightarrow Add Content \rightarrow Article
 - Fill out the required fields
 - Look at additional options for changing the URL
 - Look at publishing options, and be sure your article is published and promoted to the front page
 - Click Save

Content: Hands-On

- Group discussion
 - What types of content do you want for your site?
 - How many content types are appropriate?

 Click on Structure → Content types → Add content type

Creating content types



Too many content types!

Create content

Audio

Audio files.

- Electronic Resource License
- Event

Events have a start date and an optional end date as well as a teaser and a body. They can be extended by other modules, too.

Excel Data

Data files in Excel, tsv, or csv format

- External Links
- Fund Code
- ILS Files

These are files which the ILS Department is making available for folks to download (batch load files, etc)

Image

An image (with thumbnail). This is ideal for publishing photographs or screenshots.

- Library Logos
- Page

A page, similar in form to a story, is a simple method for creating and displaying information that rarely changes, such as an "About us" section of a website. By default, a page entry does not allow visitor comments and is not featured on the site's initial home page.

Panel

A panel a page layout broken up into rows and columns.

PDF

PDF file that you want to be viewed

Regions, Blocks & Menus: Concepts

Regions

- Preset areas on your web pages into which you may add and arrange content (i.e., blocks)
- Determined largely by the theme used

Menus

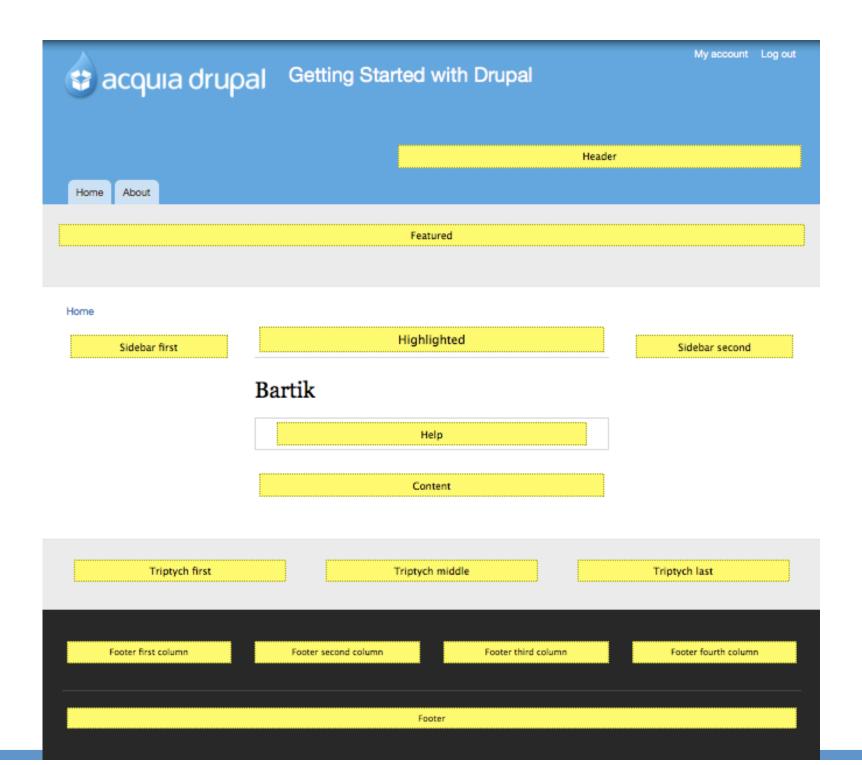
- Provide site navigation, sub-navigation
- They "live" in blocks

Blocks

- Think of them as widgets
- They are chunks of content outside of the main content area of your pages
- Their visibility on pages can be controlled very precisely

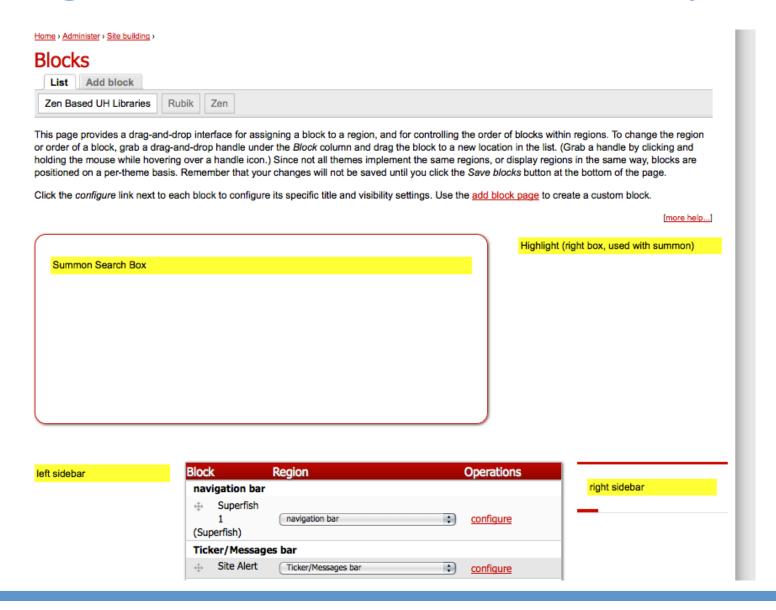
Regions, Blocks & Menus: Examples

- To view regions in a theme
 - Structure → Blocks → Demonstrate block regions
- Two following slides
 - Regions in Bartik theme
 - Regions in Garland theme

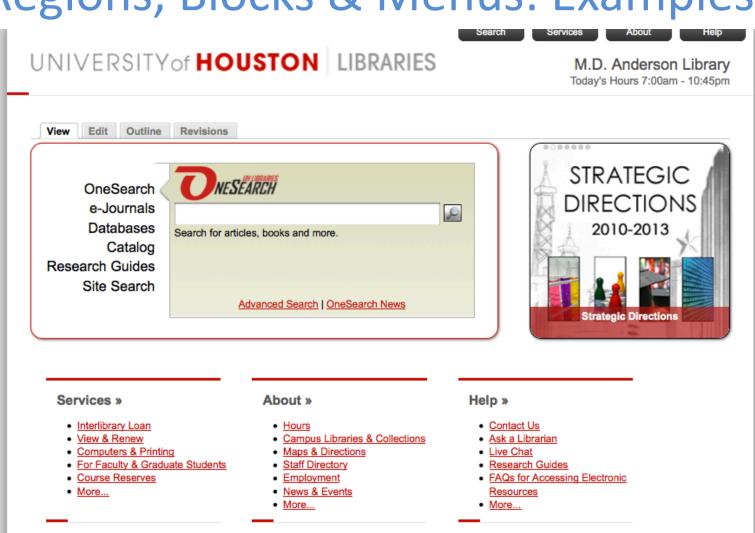


Exit block region demonstration	Header	
acousa dru		Home About
acquia oi u	ρal Getting Started with Drupal	
Left sidebar	Home Highlighted	Right sidebar
	Garland	
	Help	
	Content	
	Footer	

Regions, Blocks & Menus: Examples



Regions, Blocks & Menus: Examples



Regions, Blocks & Menus: Hands-On

- Relabel "About this Web Page" to "About"
 - Click on Structure → Menus → List Links corresponding to Main Menu
 - Click Edit corresponding to Home
 - Change "About this Web Page" to "About" in the Menu Link title field
 - Click Save

Regions, Blocks & Menus: Hands-On

- Reorder "About" and "Home"
 - Drag the + symbol thingy and drop it above the other one
 - Click Save Configuration

Regions, Blocks & Menus: Hands-On

- Create a secondary navigation menu

 - Click on Add Link, and type "About" in the menu link title field
 - Type "about" in the path field
 - Click Save

Regions, Blocks & Menus: Hands-On

Blocks

- Move the search box to the upper right
 - Structure → Blocks; change dropdown from "sidebar first" to "header"
- Remove
 - User login block
 - "Powered by Drupal" footer
 - Structure → Blocks; change dropdown from "footer" to "none"

- "Users" are all people who will visit your site as well as all people who will create content for and help you manage your site
- Users are placed into "roles" that allow them access to the parts of the site that they work on
- "Permissions" are assigned to roles to control the actions that they can take on parts of the site
- One of Drupal's great strengths is flexibility and granularity regarding users

- The user you created when you installed Drupal is "user 1," the superuser, which is automatically in the "administrator" role
- There are two additional default roles in Drupal 7:
 - anonymous user
 - authenticated user
- Each user created after "1" is numbered sequentially with a uid number

- To create a user, you need 3 pieces of info
 - Username
 - Password
 - Email address (verification highly recommended)
- More options: include picture/signature
 - Useful? Maybe on an intranet site or a more social library site

TDF Modules

- LDAP integration synchs user accounts with your network accounts
- CAS allows for single sign-on into multiple systems

- Options for user account creation
 - Unmoderated
 - Use with extreme caution!
 - Spammers WILL find you!
 - Moderated
 - Users can request accounts, but site admins have to approve requests
 - Note: This is the default setting in Drupal 7
 - Administrative approval required
 - Recommended

- Internal user policies
 - Who should have access?
 - What should they have access to?
 - Consider on content-by-content basis
- External user policies
 - Will you allow user-contributed content?
 - Will you allow users to create their own accounts?
 - Will you require user email account verification?
 - YES. You will. Or at least, you really, really should.
 - Who will manage user accounts and monitor user activity?

- Create roles conservatively and precisely
- Too many roles can complicate permissions management
- Always follow the "principle of least privilege"
 - Everyone should have access to exactly everything they need to do their jobs, and nothing more

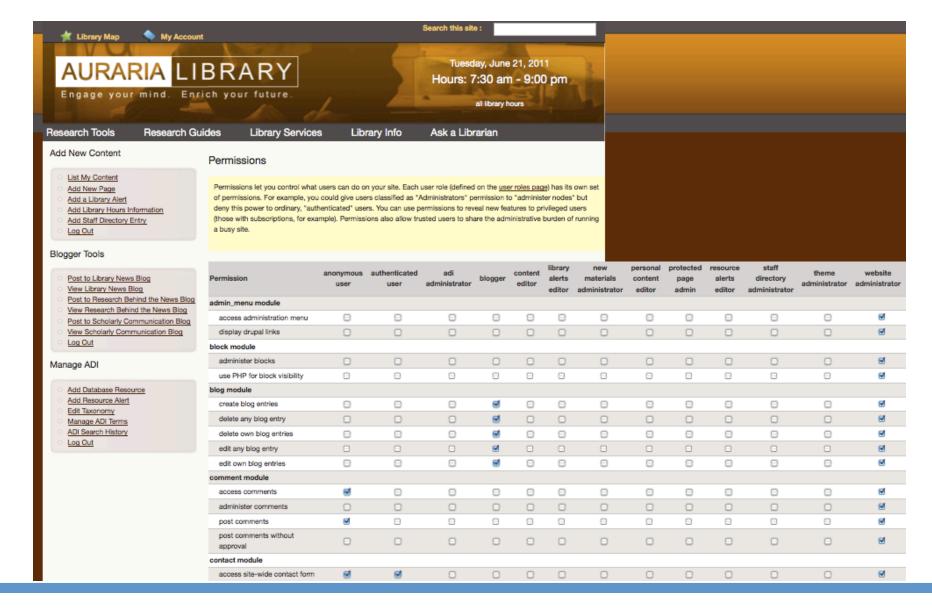
- The roles that you create will depend heavily on your environment
- The more types of content that you have, the more roles you (should) have
- Analogy:
 - Think of roles relative to job duties among various staff in libraries
 - Different staff have access to different resources

- Permissions can be assigned very specifically to each roles
- Permissions are assigned by checking boxes that link roles to actions (screen shot follows)
- Each role may (or may not) be allowed to create, edit, and delete each kind of content
 - This can apply to ALL content, OR
 - The user's OWN content

Users, Roles & Permissions: Examples

- (Select) Roles at Auraria Library:
 - Web administrator
 - 2 users, web librarian and programmer
 - Responsible for environment, maintenance, content curation
 - Blogger
 - 15 users, mostly in reference/instruction, marketing
 - Add content about services, events, news
 - ADI Administrator (databases manager)
 - 1 user in technical/public services
 - Manage display of and access to electronic resources

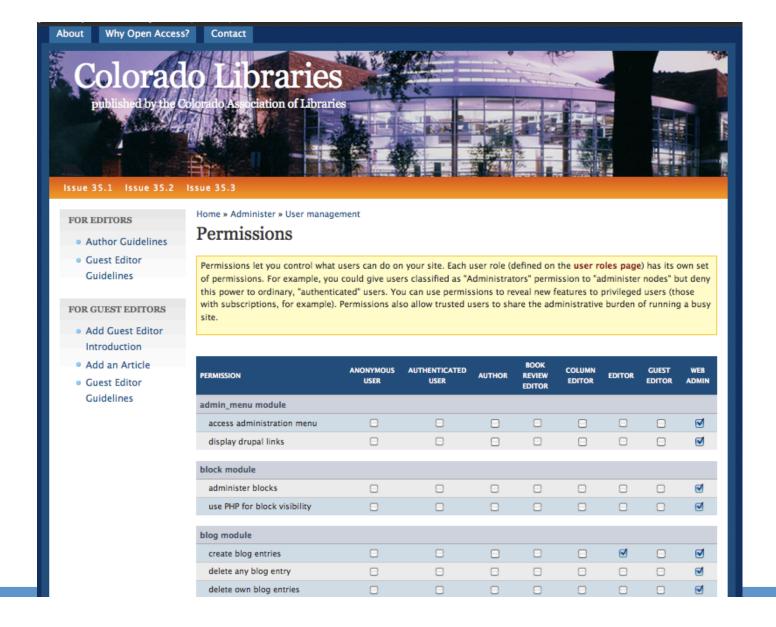
Too Many Roles!



Users, Roles & Permissions: Examples

- Roles for *Colorado Libraries*:
 - Web administrator (2 users)
 - Editor (3 users)
 - Guest Editor (1 new user per quarterly issue)
 - Column Editor (~10 users)
 - Book Review Editor (2 users)
 - Author (? users; haven't given authors access yet)

This is better.



- Create a new user:
 - Click on "People" in the admin menu
 - Click on "Add user"
 - Enter a user name, email address, and password
 - Click "Notify user of new account"*
 - Click "Create new user account"

*it really will send email

- Create a new role
 - Click "People"
 - Click on the "Permissions" tab (upper right)
 - Click on the "Roles" button (upper right)
 - Type a new role name in the open box and click "add role"
 - Stay on this screen for the next step...

- Give the new role permissions to create articles
 - Click "edit permissions" link associated with the new "editor" role (lower right)
 - Give your editor role permission to create, edit, and delete all article content on your site by checking the appropriate boxes
 - Scroll to the bottom and click "Save permissions"

- Assign the new role to your new user
 - Click "People"
 - Click the "edit" link associated with your new user
 - Check the "editor" box under "Roles"
 - Click "Save"

- Set your site to require administrator verification for new user accounts
 - Click "Configuration" in the admin menu
 - Click "Account Settings" (top left)
 - Under "Registration and Cancellation," select "Administrators only"
 - Click "Save configuration"

Lunch



More info about Views...

- Tutorial: Intro to Views (multiple parts)
 - http://lin-clark.com/blog/intro-drupal-7-intro-viewspt-1
- Tutorial: Intro to Views (multiple parts)
 - http://www.youtube.com/watch?v=1z13ylwMhk4
- Drupalove: 100 Drupal Views Tutorials
 - http://www.drupalove.com/article/100-drupal-viewstutorials-and-resources
- Robert Townsend, Foundation Drupal 7
 - Appendix D: Views Recipes

- Themes control the look and feel of your web site
 - PHP templates with HTML and CSS
 - There are currently ~800 contributed themes for Drupal sites
- Drupal 7 comes with four standard themes:
 - Bartik: named for Jean Bartik
 - Seven: administrative theme
 - Garland: an old Drupal standard
 - Stark: used primarily as demonstration

Build first. Then theme.

-Stephanie Pakrul

- Four kinds of themes:
 - Default (Bartik, Seven, Garland)
 - Starter (Zen, Fusion)
 - Contributed (8 gazillion)
 - Custom (requires advanced HTML + CSS skills)

- Default and contributed themes:
 - Modify colors
 - Change fonts
 - Add images
 - Check configuration options for different layout possibilities, i.e., column arrangements

- Starter and custom themes:
 - Starter themes give a basic layout that can be heavily modified
 - Custom themes, which are beyond the scope of this workshop, can be created using HTML and CSS with a PHP template

Themes: Hands-On

- Switch default theme from Bartik to Garland and back:
- Groups.drupal.org/node/19730
 - Click "Appearance"
 - Click "Set default" next to Garland
 - Click "Save configuration"
 - Click Home icon to view theme changes
 - Repeat process to set back to Bartik

Themes: Hands-On

- Explore contributed themes:
 - http://drupal.org/project/Themes
 - Search by:
 - Drupal version
 - By project status
 - Keyword
 - Most installed, date released, etc.
 - Check for: commits, maintainer, community activity around a theme

Themes: Hands-On

- How to install contributed themes:
 - Click "Appearance"
 - Click "Install new theme"
 - Two options:
 - Install from URL
 - Upload a module

Cool Things to do with Themes

Subthemes:

- Apply to different regions of your site, i.e., blogs, audience-specific sites
- Keeps the same overall look and feel
- Administrative themes:
 - Assign a different theme for users with different permissions so that they know when they're using administrative parts of site

Modules: Concepts

- Modules add functionality to your cms, extending the flexibility, making it more powerful
- Warning: DO NOT HACK CORE!
 - Upgrades will be hell → We mean it!
- 3 kinds of modules
 - Core, which come with your installation of Drupal
 - Contributed, which you find, download and install
 - Custom, which you build yourself (and then hopefully share with the Drupal community)



Every time you hack core God kills a kitten

Please, think of the kittens!

Not everything comes in core

- You'll still need to add some essential modules
- Why?
 - As Drupal evolves, you want your CMS to remain flexible.
 - If modules that have functionality that will evolve constantly, it's better to not lock them down by including them in core.
 - If modules provide a UI, then it's better to not be in core, providing more flexibility.

Contributed Modules: Concepts

- Modules that other people have created
- Some may have more functionality than what you are looking for, and some less
- Look at Modules handout!

Essential Contributed Modules

• Views provide a flexible method for Drupal site designers to control how lists and tables of content are presented. This tool is essentially a smart query builder that, given enough information, can build the proper query, execute it, and display the results. It's very powerful and one of the most used modules on this entire list.

Essential Contributed Modules

 Organic Groups enable users to create and manage their own 'groups'. Each group can have subscribers, and maintains a group home page where subscribers communicate amongst themselves.

Essential Contributed Modules

- Pathauto automatically generates humanfriendly URL path aliases for content nodes.
- Google Analytics offers more options and is cleaner than just pasting google analytics code in your site.

Essential Contributed Modules

- Mollom is an "intelligent" content moderation web service. By monitoring content activity on all sites in the Mollom network, Mollom is in a unique position to determine if a post is potentially spam; not only based on the posted content, but also on the past activity and reputation of the poster.
- Also provides CAPTCHAs

Core Modules: Hands-on

- Click Modules

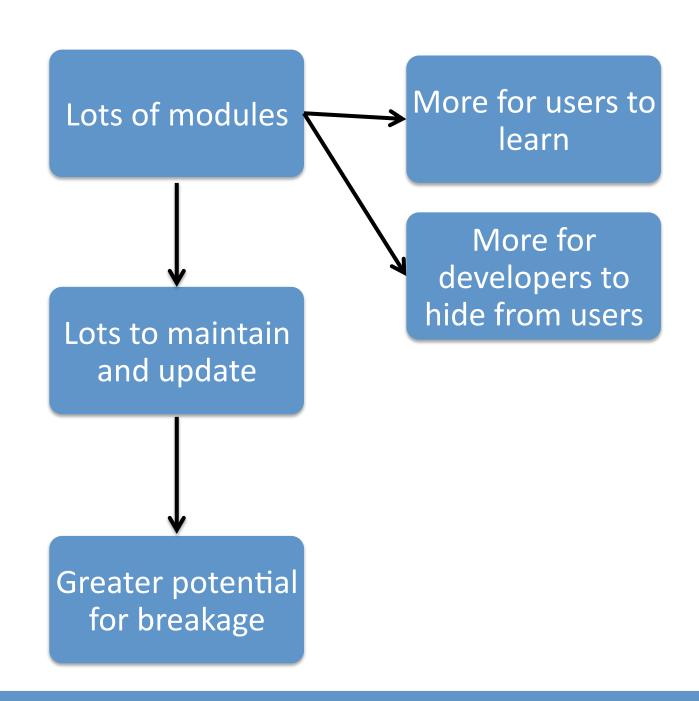
 Look at the list!
 - What are your observations about what is currently installed?
 - What modules would you use, and why?
- Go to http://drupal.org/project/modules
 - If you have the ability to download, find one of the modules we talked about and download, install, and customize it.
 - If you can't download, activate one of the modules and customize it.

Drupal Break



Tips for Picking Modules

- Similar to what we've already discussed about themes:
- How many sites use them?
- Check versions
- Check maintenance info
 - Last commits
 - Bug reports
 - Community Activity



Keeping it simple

An investment in CMS simplification and respect for the user experience can yield an extremely powerful system run by satisfied, happy users.

Custom Modules: Examples

- Custom modules
 - Beyond the scope of what we'll cover today
 - You need a programmer
 - Examples at the University of Houston Libraries
 - Staff Directory System
 - Electronic Database System
 - Hours with RESTful API

Maintenance & Security

- Maintenance
 - Backing up your site
 - Keeping your site up-to-date
- Security
 - Keep your site safe from spammers and other baddies
 - Use the correct file permissions settings to prevent manipulation via the web server (Apache)

- Backups are an important part of your maintenance and security routine
- What needs to be backed up?
 - The MySQL database (most content)
 - The site file structure, especially the "files" directory (uploaded images and files)
- Backup routines can be automated (cron) to save time and circumvent forgetfulness

- When you opt to use a robust CMS such as Drupal, you are committing to to a maintenance regime
- A site that is not maintained becomes a security risk not only to itself, but to the environment hosting it
- A site that is not maintained will eventually become obsolete and /or broken beyond repair

- Modules and themes need to be updated
 - View available updates: Reports → Available updates
 - Your "Available updates" page should look like a healthy lawn, not look like a Christmas tree
- Your overall version of Drupal core needs to be updated as well
 - Requires (hopefully a small amount of) down time

- Your underlying web environment (OS, Apache, PHP, and MySQL) need to remain upto-date as well
- Create a regular backup and maintenance schedule
- Regular updates of both the web server and Drupal components keep the update process shorter and simpler and minimize down time

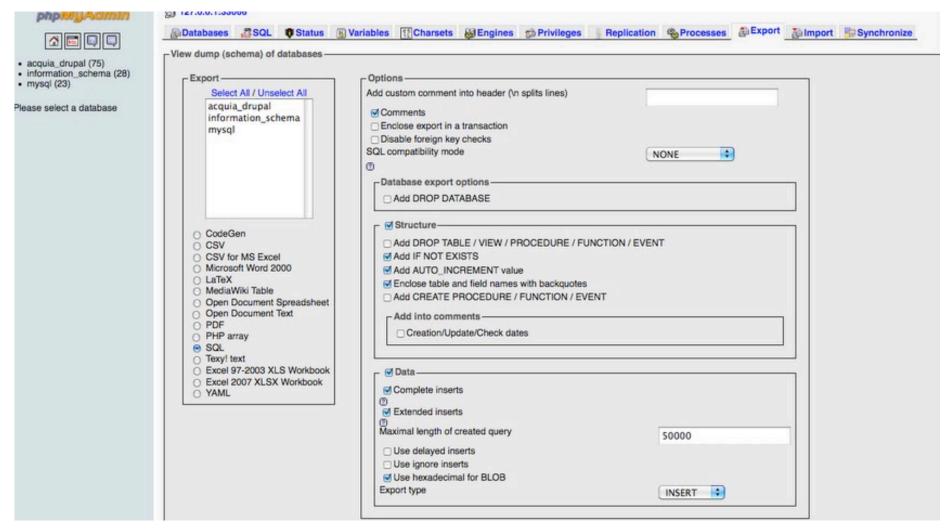
Maintenance: Examples

- Auraria Library site backup
 - Automated MySQL database backed up nightly by UC Denver campus IT
 - Weekly backup to shared drive by web staff
 - Weekly backup is sufficient because most commonly changed content is in LibGuides
- Personal site backup demo (time-permitting):
 - Every Friday morning (reminder in Outlook)
 - Back up database with Sequel Pro
 - Back up files with Fetch

Maintenance: Examples

Open Acquia Dev Desktop Control Panel →
 Manage my Database → Export

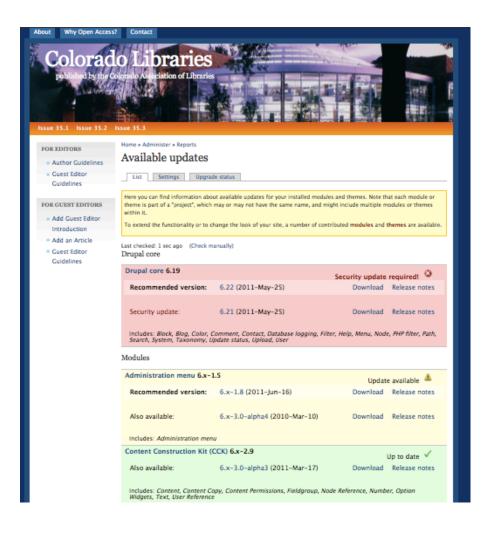
Php myAdmin



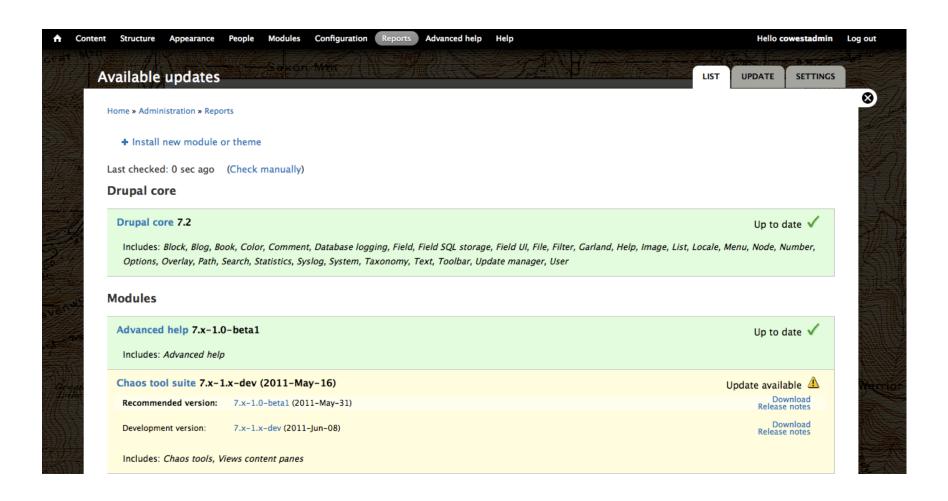
Maintenance: Examples

- An out-of-date site
- An up-to-date site









Maintenance: Hands-On

- Reports → Available updates
- All elements of your site-core code base, themes, and modules-are color coded:
 - Green: up-to-date
 - Yellow: update available, but not critical
 - Red: update required to ensure site security
 - Gray: no update available

Maintenance: Hands-On

- Check for, and update themes and modules
 - Click "Modules" (or "Reports")
 - If there are updates available, check the box, and click "Update"
 - Click "Download these updates"

Maintenance: Hands-On

- Updates to Drupal Core require downtime
- Clone your environment and test before upgrading to a live site
- The more complicated your site, the more complicated the upgrade process
- Any customizations should be checked

Security: Concepts

- Control undesirable user behavior
- Understand the basics of site security
- The bottom line: Spammers and bad guys WILL find you!

Security: Concepts

- Controlling user behavior
 - User settings:
 - As mentioned earlier, require user account creation by admins
 - Or, at the very least, require email verification
 - Comment settings:
 - Always set comments for "moderated"
 - IP blocking: somewhat limited in use
 - TDF Module: Mollom

Security: Concepts

- Ensure that file permissions settings are secure and not writable by the server
- Untrusted users are prevented from inputting dangerous code
- Errors are written to the logs, not the screen
- Unsafe file extensions are not allowed
- TDF Module: Security Review

Administration Tips

- Create role-specific menus (CL example)
- Hide admin menu from all but admins
- View the site as internal and external user
 - Log out and test to see site as external user
 - TDF Module: Devel module allows you to view site as internal user

Final thoughts

- Do research on modules FIRST
- Pay attention to your peers
- Follow the "use only what you need" philosophy
- Find balance between usability and functionality
- Don't give users too many options

Final thoughts

- "Remove" the extraneous stuff
- Create templates for multiple page layouts
- Create roles for basic users as well as advanced users
- Documentation
 - How certain tools work
 - Reasoning for choices
- Create and embed self-help within CMS
- Conduct usability testing on the CMS

CMS Pain Assessment Tool

Choose the face that best represents how your CMS makes you feel













Hearts! Rainbows! Puppies!

Meh, it could be worse.

Is it happy hour yet?

What did I do to deserve this?

CMS stands for Cruel, Maleficent, Sadist.

THIS IS WHY WE CAN'T HAVE NICE THINGS.

Further Resources: Books

- Foundation Drupal 7, by Robert J. Townsend
- Cracking Drupal: A Drop in the Bucket, by Greg Knaddison
- The Definitive Guide to Drupal 7, tons of authors, published by Apress
- Beginning Drupal 7, by Todd Tomlinson

Futher Resources: Tutorials

- Lynda, http://www.lynda.com/
 - Some free tutorials, full access requires subscription
 - Drupal offerings
 - 7 Essential Training
- Lullabot, http://www.lullabot.com/
- Drupal Easy, http://drupaleasy.com/, Free podcasts on Drupal

Further Resources: This Conference

- Drupal IG meeting:
 - Saturday, 1:30-3:30
 - Convention center room 242
 - Four presentations about uses of Drupal in libraries
 - Level: beginner-advanced
- Drupal Fail Panel and Group Therapy
 - Monday, 1:30-3:30
 - Convention center room 274
 - A panel of four discussing Drupal failures
 - Level: intermediate-advanced

Further Resources: Drupal Communities

- ALA LITA Drupal Interest Group
 - http://connect.ala.org/node/71787
 - Meetings and programming at Midwinter and Annual
 - drupal4lib email list (n00bs welcome!)
 - Coming soon! Online training
- Drupal.org
 - Create a user account
 - If you're a programmer, contribute!

Further Resources: Drupal Communities

- Drupalib
 - http://drupalib.interoperating.info/
 - a place for library Drupallers to hang out that lists library specific modules
- Drupalcons
 - Conferences for Drupallers, different cities every year
- Drupal Meetup Groups
 - http://drupal.meetup.com/



LITA Happy Hour



5:30-8:00 TONIGHT!

Howlin' Wolf Den

907 Peters Street

LITA Eats
Departs 7:00 from Happy Hour

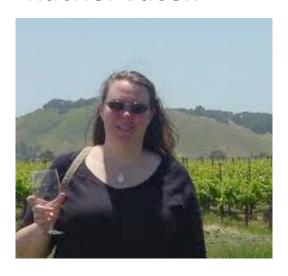
Contact Info

Nina McHale



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