THE PRESENTATION IS FINISHED. NO FURTHER EDITS, PLEASE

Report from Formal Drupal Usability Testing at the University of Minnesota Libraries

Drupalcon Boston 2008 Day 1, Monday 3 March

Documents for this presentation at:

http://groups.drupal.org/usability

Follow along online:

http://tinyurl.com/ywrb4s (requires a Google login)

Why is the U of M interested in Drupal?

The University of Minnesota Libraries Are...

- ...Standardizing on a (Social) Platform
- Drupal as Library Web Applications "Glue"
- Drupal Powered Academic Community Sites
 - HarvestChoice, EthicShare

How Did This Get Started?

- Barcelona Drupalcon Keynote
 - Dries: Usability!, Usability!
- We Have a Lab, You Have a CMS
 - Helping Drupal Helps Us





Why formal usability testing?

Because none of us can unlearn how to use Drupal.

Because we can't forget what a node is.

Because we know that Post Settings, Input Format, and Display Fields, are not commands

Because the people who care most about Drupal, can never use it for the first time again.







What to test?

Drupal is highly customizable

What to test?

Drupal is highly customizable

In most cases deployment of Drupal requires heavy customization of UI/modules/etc.

What to test?

Drupal is highly customizable

In most cases deployment of Drupal requires heavy customization of UI/modules/etc.

What do we test that will be relevant to the most users?

The short answer:

Drupal 6.x core
CCK
Garland theme

The long answer

Tasks that required users to grok:

- CCK content types and fields
- Users, roles, and permissions
- Taxonomy (we're librarians, after all)
- Menus
- Blocks

The long answer

We had to be very careful in how we worded the tasks

- Tasks had to match the evaluator's mental model and vocabulary (i.e. a page is a page, not a node type)
- Tasks had to avoid terminology that appears in the Drupal interface

Personas

Initial persona set:

- Visitor
 - Anonymous user
- Content contributor
 - Authenticated user
- Site maintainer
 - Sub-admin
 - Editor
- Site admin
 - Installer
 - o DB Admin
 - Server Admin

Personas

Initial persona set:

- Visitor
 - Anonymous user
- Content contributor
 - Authenticated user
- Site maintainer
 - Sub-admin
 - Editor
- Site admin
 - o Installer
 - o DB Admin
 - Server Admin

Evaluators

In order to find people who could succeed, the lab recruited people who had experience with the following:

Blog apps like Movable Type or WordPress

Other CMSs

but not Drupal.

These are <u>our</u> people

These are <u>our</u> people

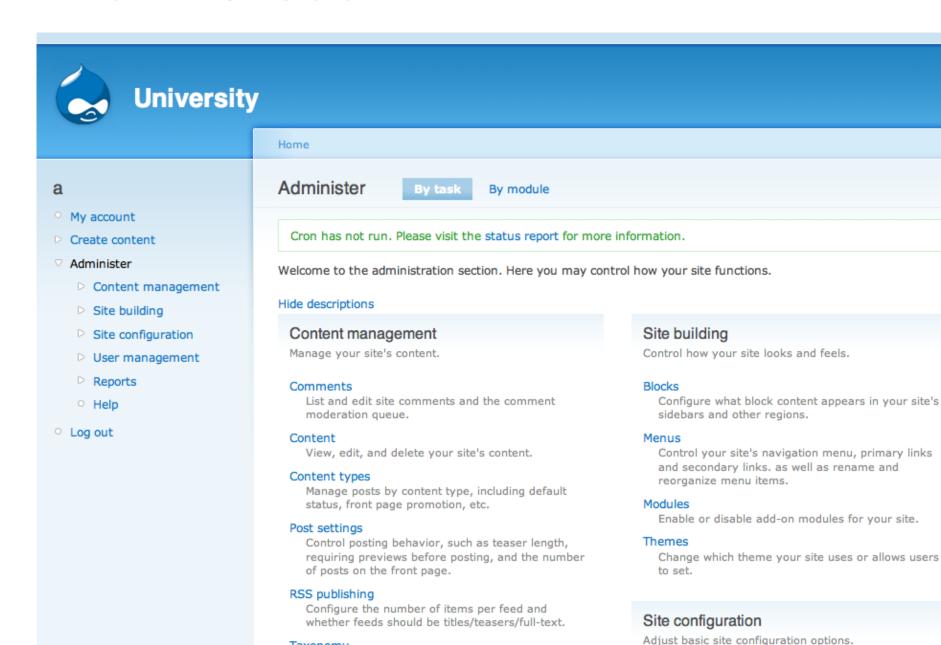
the kind of people who we'd like to see using Drupal

These are our people

the kind of people who we'd like to see using Drupal the kind of people we'd like to think <u>could</u> use Drupal

And this is what we found...

What we see



Manage tagging, categorization, and classification of

Taxonomy

your content.

Actions

Manage the actions defined for your site.

What they see





 Content Content types Post settings

Log out

 RSS publishing Taxonomy

University	/						
	Home > Administer > Content management						
	Workshop	Edit	Manage fields	Display fields	Add field	Add group	
My account Create content	Identification						
Administer							

Content management Comments

The machine-readable name of this content type. This text will be used for constructing the URL of the create content page for this

Description:

Site building Site configuration User management

Title field label: *

Description
To omit the body field for this content type, remove any text and leave this field blank.

Minimum number of words:

Explanation or submission guidelines:

Default options:

Sticky at top of lists

Default comment setting: C Disabled

C Read only

Read/Write

ments permission will be able to override this setting.

Default display order:

Comment controls: C Display above the comments

C Display below the comments

C Display above and below the comments

Do not display

Anonymous commenting: Anonymous posters may not enter their contact information

Anonymous posters may leave their contact information

Anonymous posters must leave their contact information

Comment subject field:

C Disabled € Enabled

C Optional

Forces a user to look at their comment by clicking on a 'Preview' button before they can actually add the comment Location of comment submission form:

C Display on separate page

C Display below post or comments

Save content type Delete content type

"Yowza!"

Task 1

Create a form with some simple fields so users can list upcoming workshops.

66

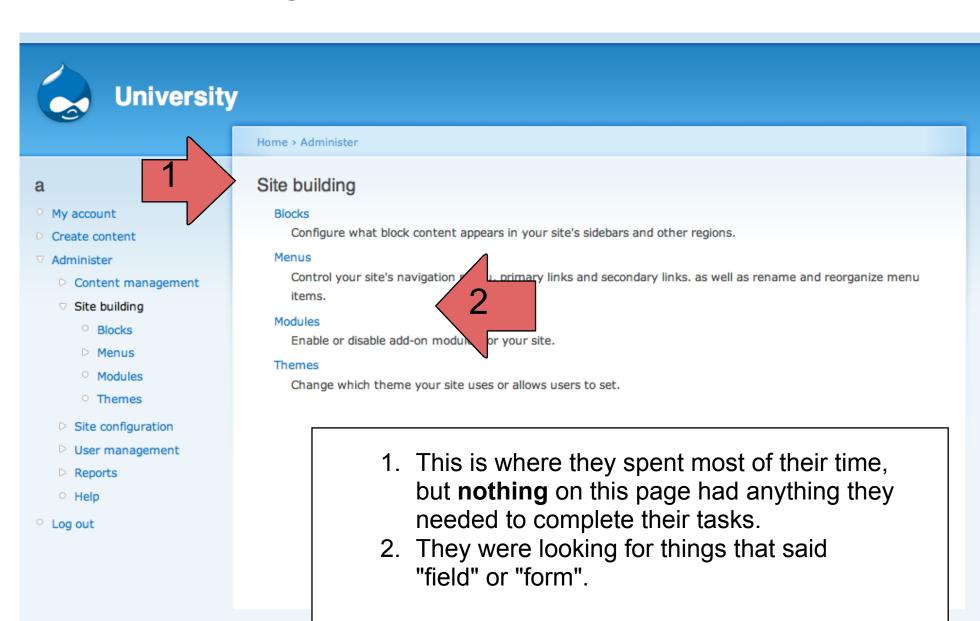
OK I'm building a site, so I'll start with Site Building.





Content Management probably isn't where I want to be right now, so I'll start with Site Building, then Blocks.

Site building



66

If I can find anything at all about forms...

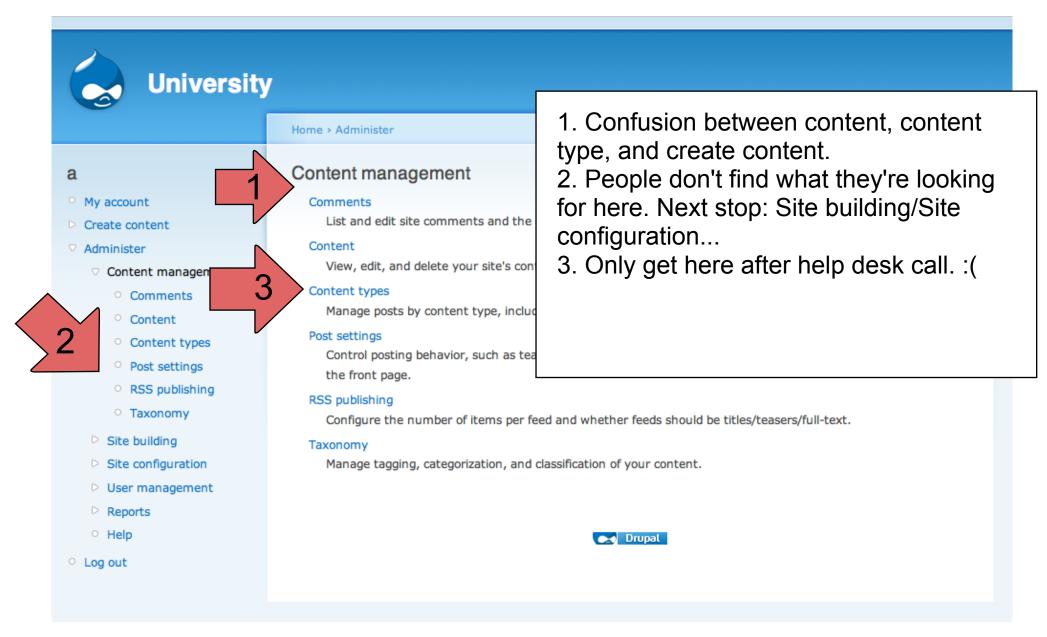


66

A lot of this language is unfamiliar... like content type.



Content management panel

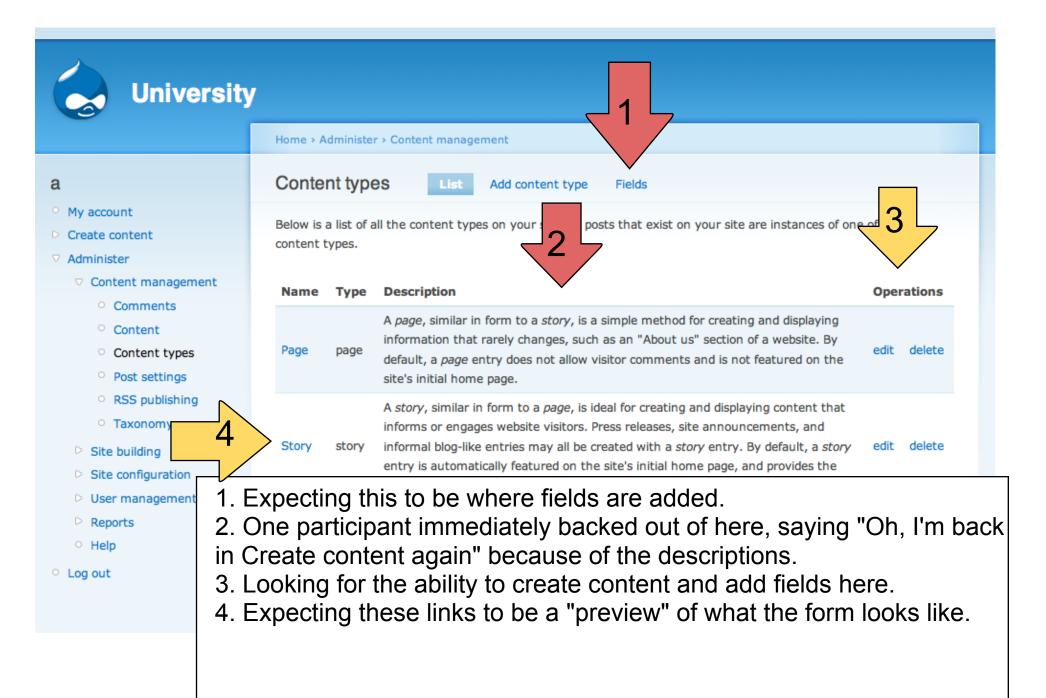


66

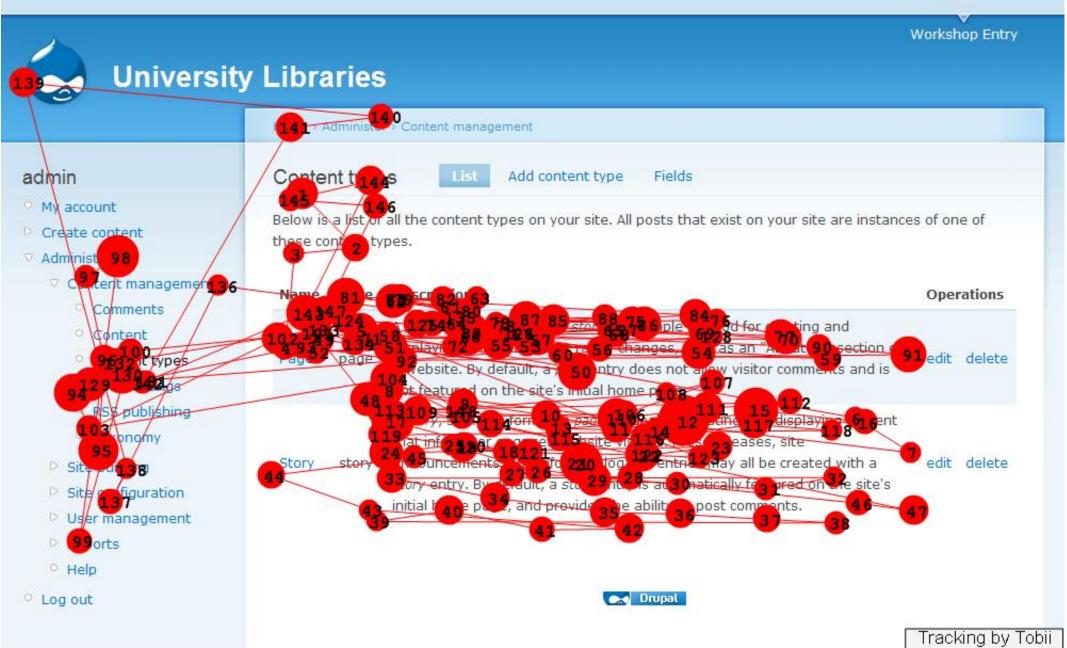
Story seemed very jargony to me.



Content types panel



Eye-tracking on content types panel



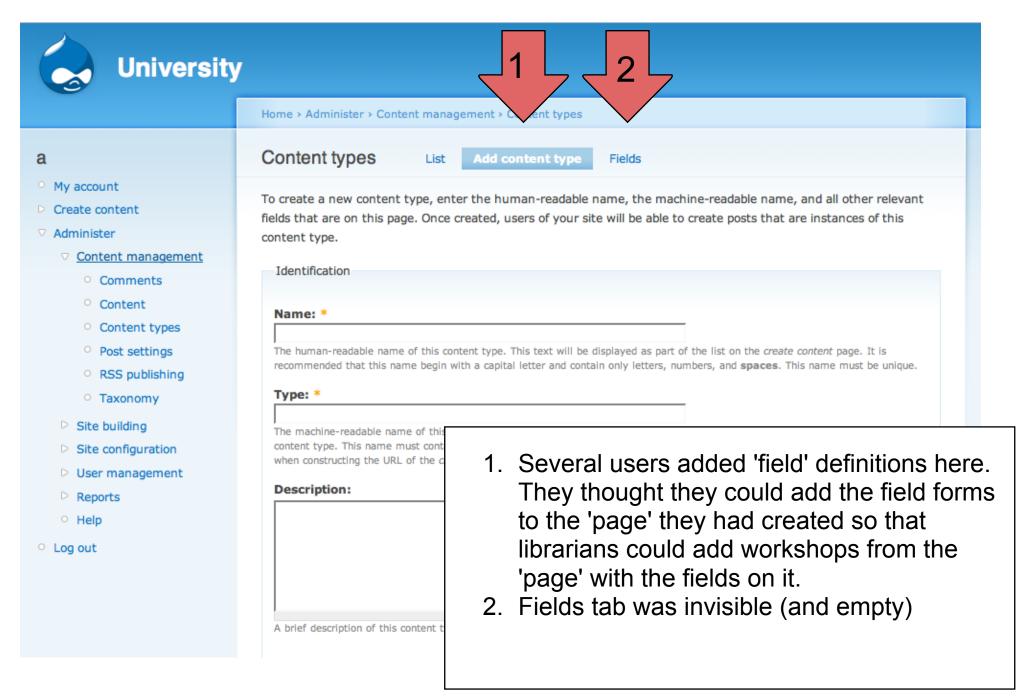
I want to create the ability to add forms, but I can't see where they live.





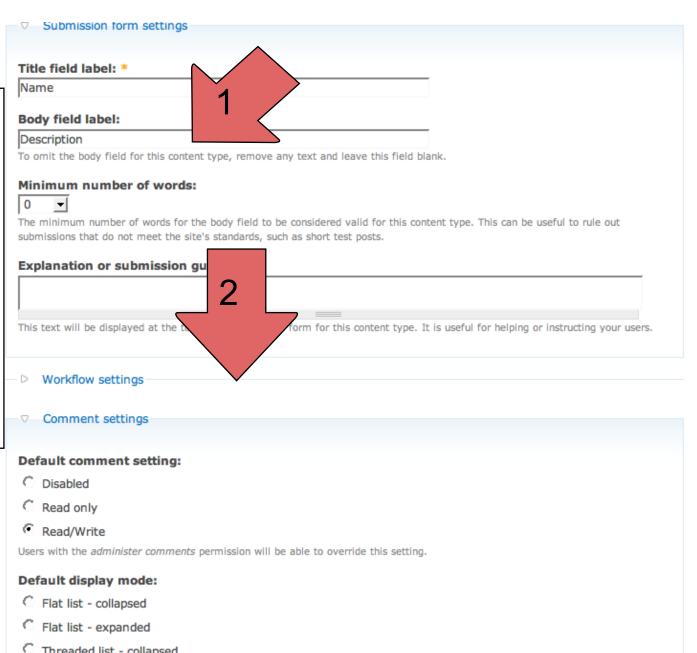
Is a field a content type? Is a concept of a field a content type? Or is a field name a content type?

Add Content Type page (1/2)



Add Content Type page (2/2)

- 1. Core fields are in submission form settings, CCK fields are hiding under a tab.
- With all fieldsets expanded, this form is one yard long.



A page, I think I know what a page is.



A page, I'm thinking web page?

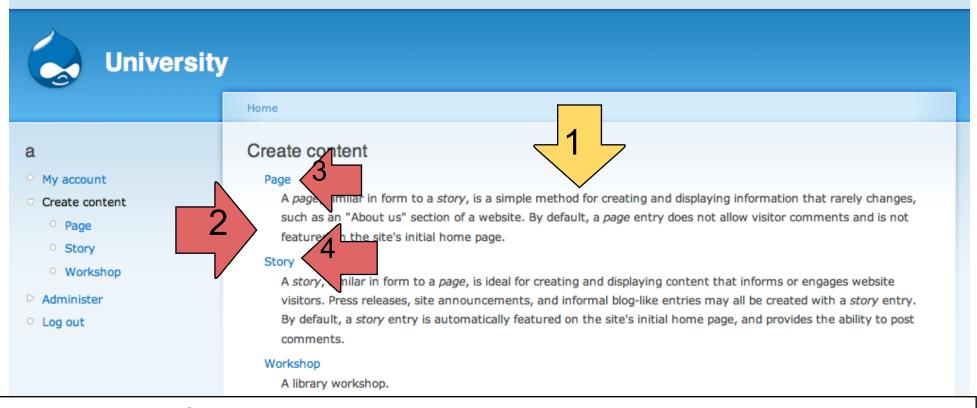
What the heck is a book page?





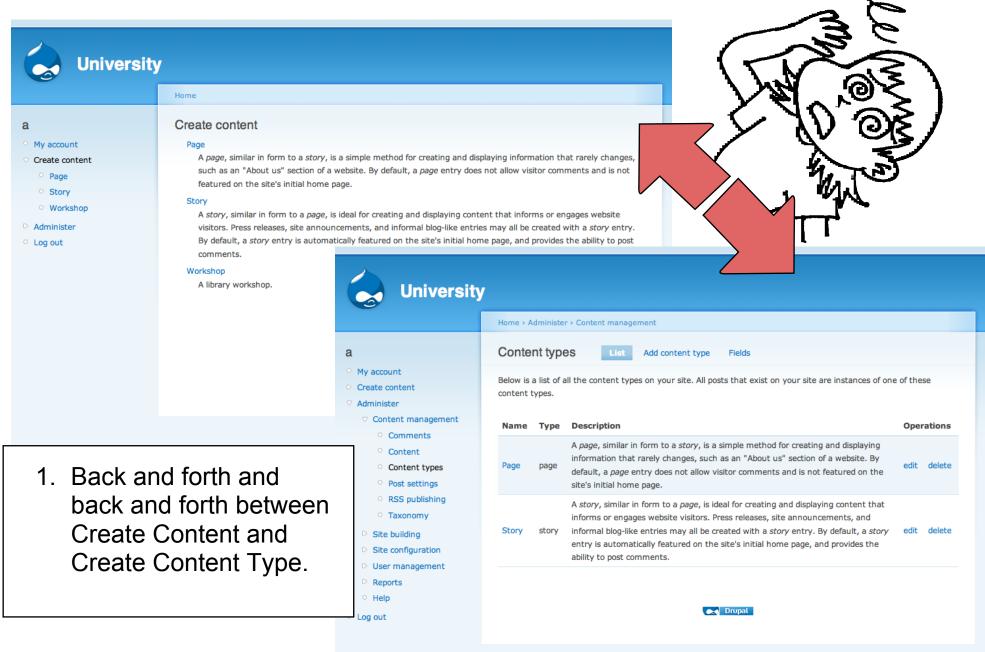
Am I creating a thing for creating web pages or am I creating web pages? Am I creating content or am I creating a content? Whoah, confusion.

Create content page



- 1. People confused about page vs. story. Descriptions didn't help them to understand (and too long)
- 2. People thought "Page" and "Story" were the **only options**; didn't know that you could add more.
- 3. People think "Page" is a *whole* web page which they can put different things *into* (like forms).
- 4. "Story" term universally not understood.

Create content or content type?



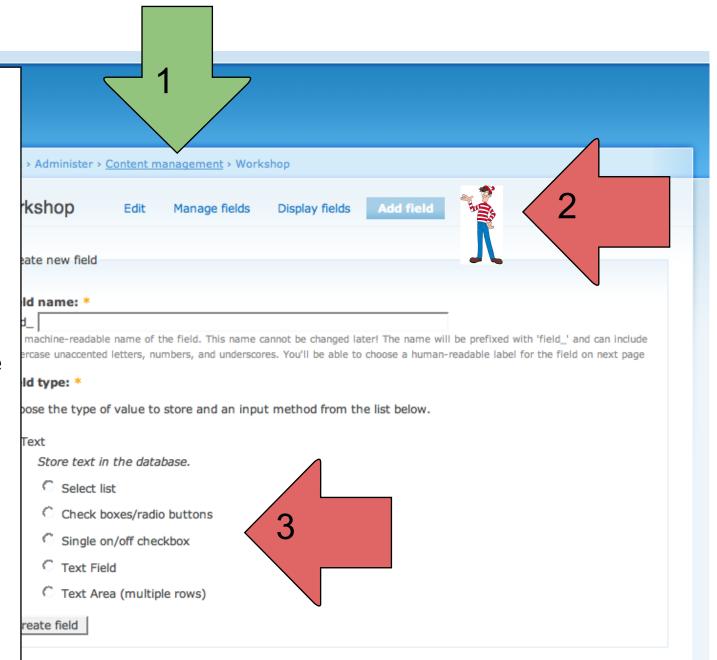
[35 minutes later.]

I think this is what I've been wanting to do all along. I wanted to add a field.

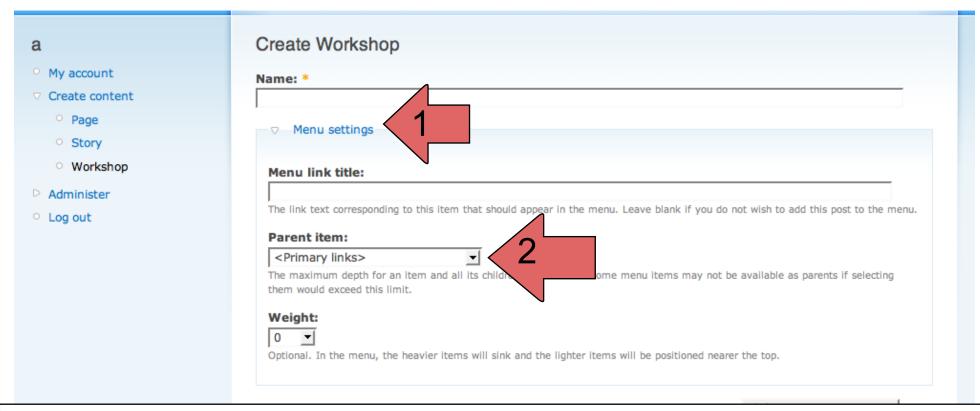


Add field

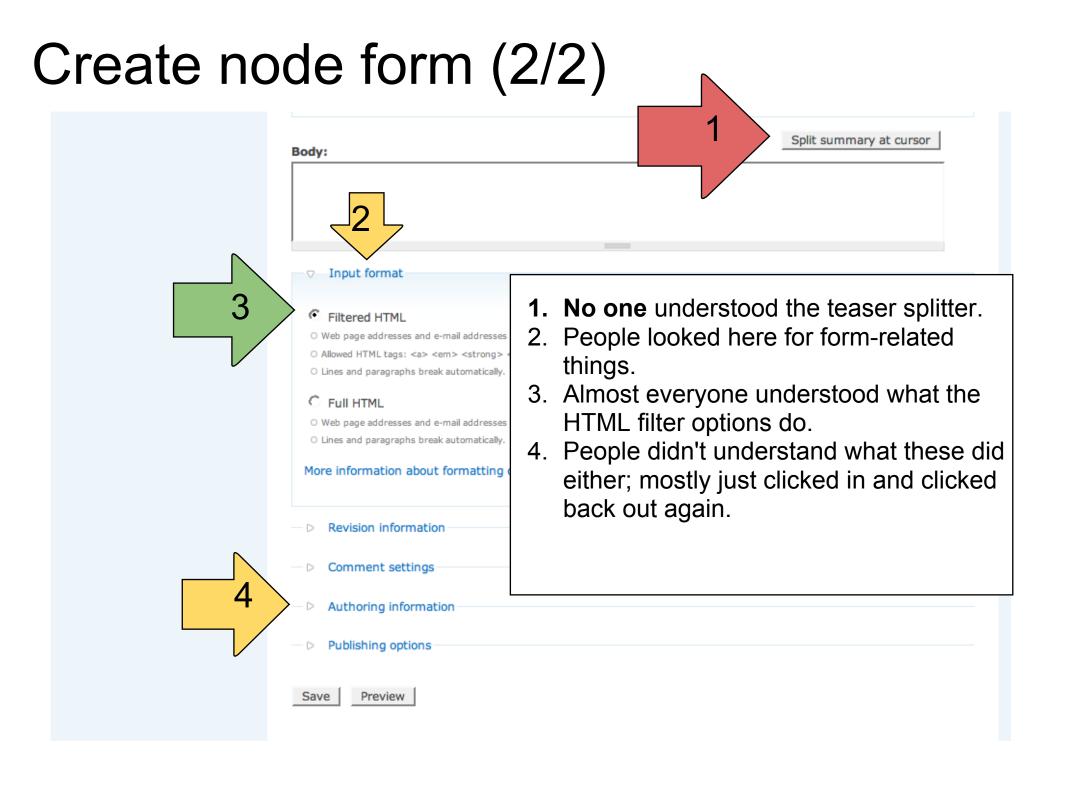
- Once users get here, they grok the whole concept of adding fields very well.
- 2. The problem is it took them **30-40** minutes to find it at all.
- 3. People don't notice the data types, they focus on widgets.
 Participant chose "Autocomplete Text" on Node reference because it said "text."



Create node form (1/2)



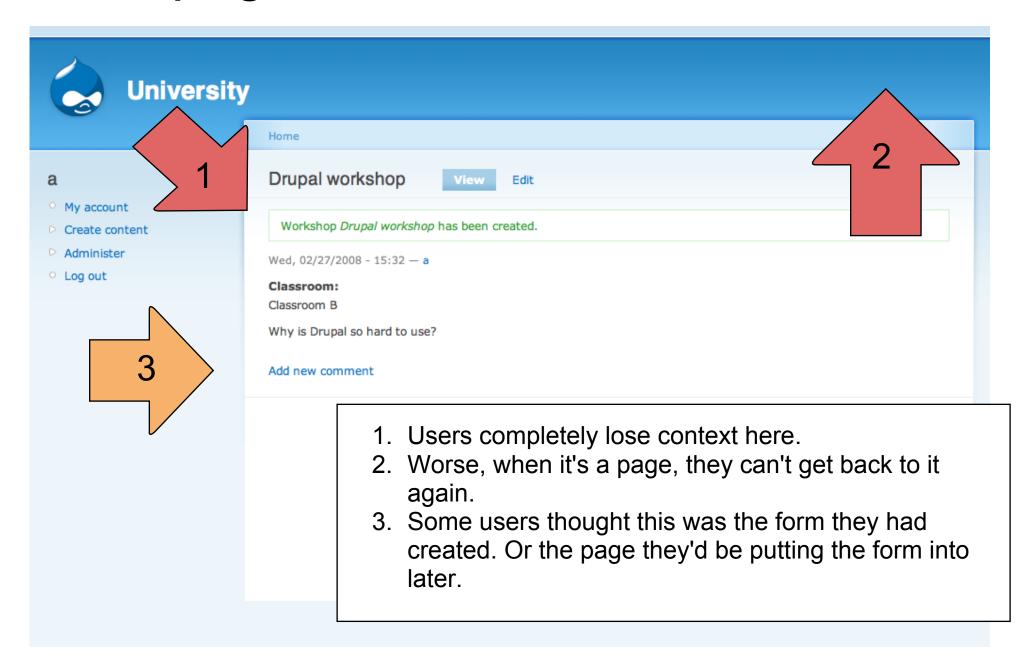
- 1. Several users **thought menu settings were required** information because of its prominence in the form.
- 2. **Parent item** was **universally not understood**. People stuck menu items at random places, and then did not realize what it meant. One suggested "child" might be better.



What happened!! Is this my form, or a preview of my form, or a page, or a story?



Home page with content



Task 2

Create an account for "Nancy Pearl" and give her access to create workshops



OK this feels very straightforward.





User management. This is where I want to be.





OK. This is easy!



So I want Nancy to be able to create workshops, and edit her own workshops.



Permissions page



- 1. People understand what to do on this page, although they clicked "access rules" first.
- 2. Several commented that these should be sorted by content type.
- 3. Distinction between "edit own" and "edit any" wasn't always clear



Task 3

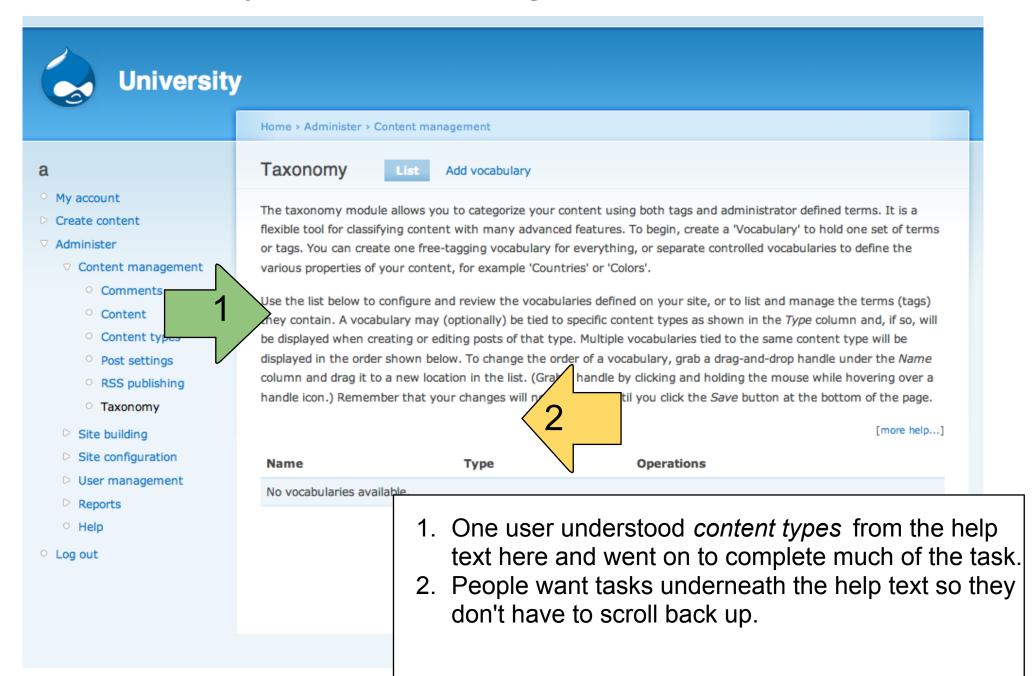
Classify workshops by academic department.



This is starting to make a little more sense here.



Taxonomy admin page





Oh wow I can add related terms!



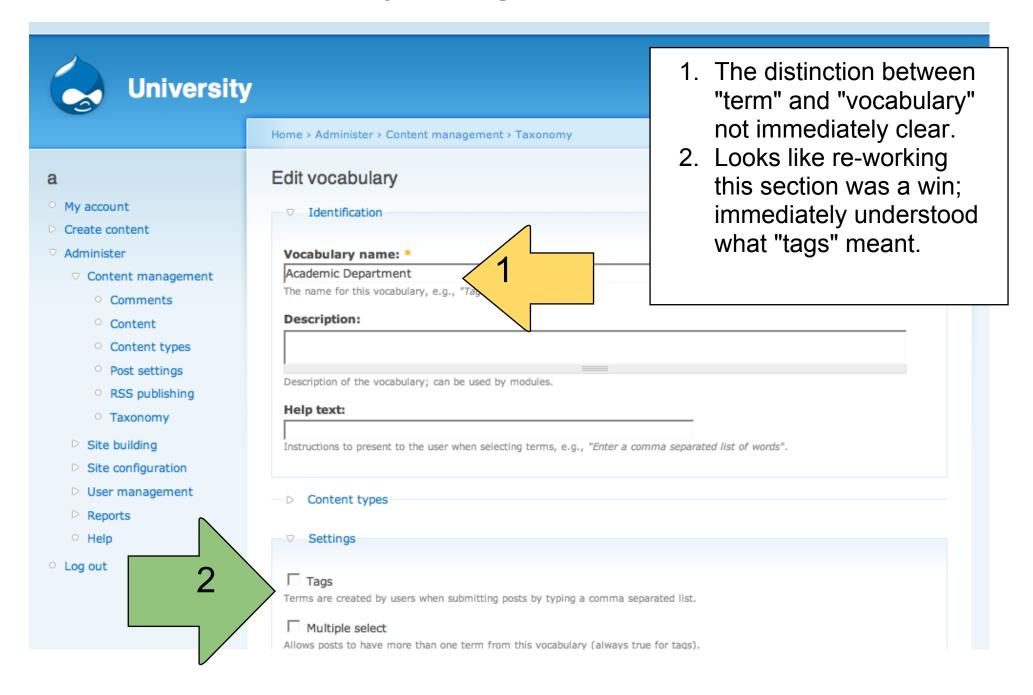
I want to make a multiple level of hierarchy but I'm not sure how I would go about that.



I think I'll make this multiple select, and I'll set it to required. Not tags, that's too *bloggy*.



Add vocabulary page



Task 4

Task 4

No one made it to task 4.

This is where they spent their time instead.

I am trying to get back to that screen, that had that step by step layout.





None of this looks like what I'm looking for. I guess I'll see if I can search... Oh, I can't.

Admin

- My account
- Create content
- Administer
 - Content management
 - Site building
 - Site configuration
 - User management
 - Reports
 - Help
- Log out

Help

This guide provides context sensitive help on the use and configuration of and its modules, and is a supplement to the more extensive online Drupa handbook. The online handbook may contain more up-to-date information, is annotated with helpful user-contributed comments, and serves as the definitive reference point for all Drupal documentation.

Help topics

Help is available on the following items:

- Block
- Color
- Comment
- Database
 - logging
- Filter
- Help

- Menu
- Node
- System

- Taxonomy
- Update status
- User

Home page

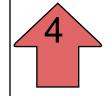


- 2. Some also used this screen for navigation and didn't notice left hand navigation.
- 3. Missing overview "how does the system work" info here; users were forced to click around admin panel to figure it out. video tutorial?
- 4. When this page goes away, it completely strands people, as it's the closest thing we have to a tutorial.

ditional modules

one of the

romoted a post



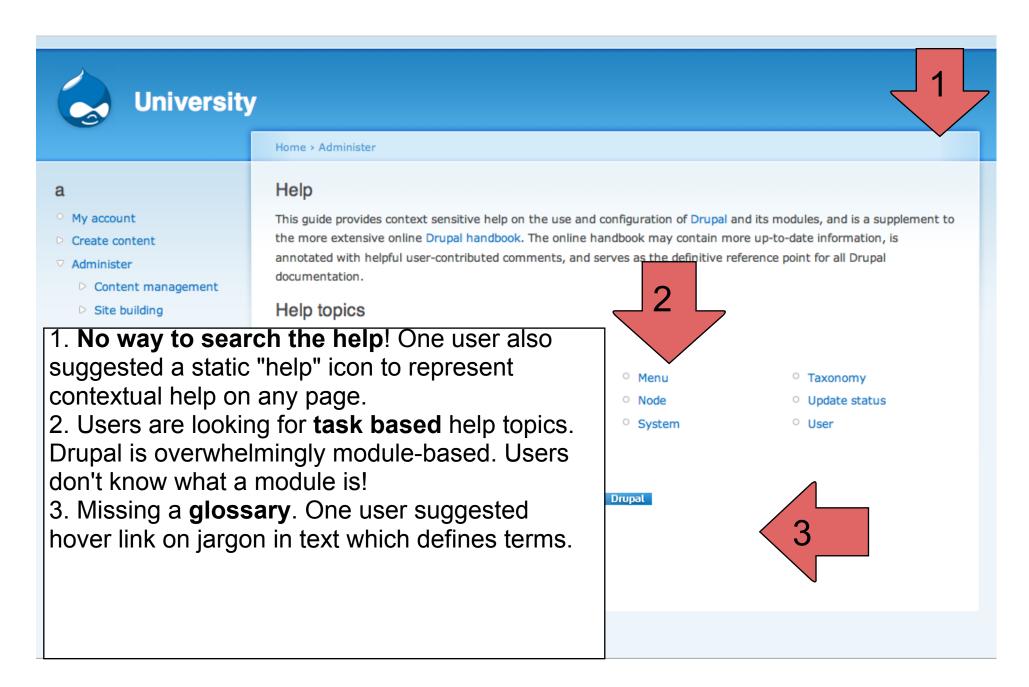
It says it provides context sensitive help. But I don't see that anywhere.



Help was completely useless to me.



Help page



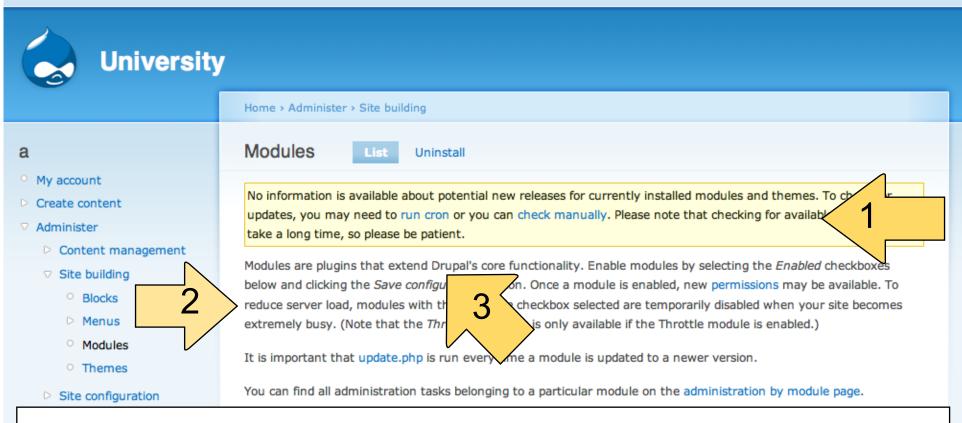
What I want to see is a simple HTML form builder.



Is my module going to be a workshop in this system?



Modules page (1/2)



- 1. Yellow box was jarring (though most wouldn't usually see it)
- 2. Wall of text causes rest of page to go "below the fold." Also caused one user to back out of here immediately, saying "This is too complicated."
- 3. One user thought this was the wrong place to be, because it says modules "extend" Drupal's functionality, and fields should be built-in.

I see a lot of CCK, what is this CCK?

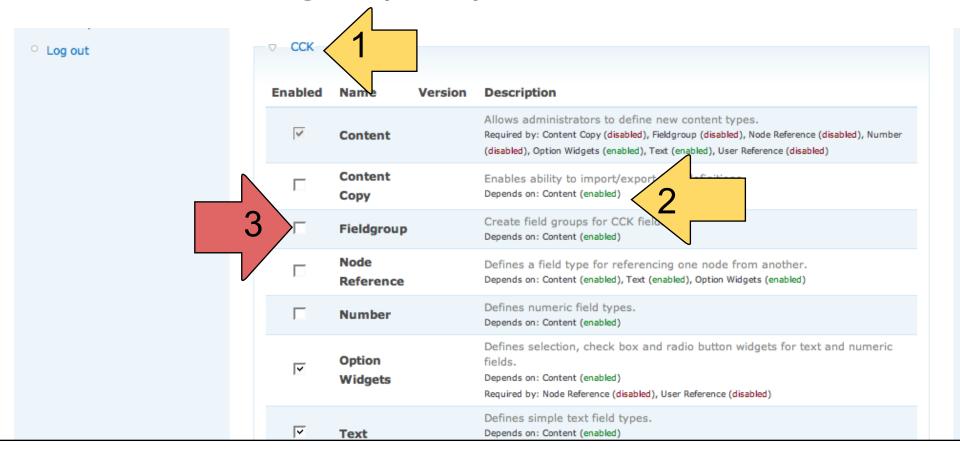




Oh! Finally! Fields!



Modules page (2/2)



- 1. Some users click "CCK" here expecting it to display a definition.
- 2. One user's eyes jumped to the green "enabled" text and thought field was already enabled, even after having read that the checkbox was how this was enabled.
- 3. This is the only place in the entire admin panel where there's prominent mention of a "field"

Right. I'm just going to add them all - wow this might lock up.

[it did.]

Next stop... php.ini!

```
; on your server or not.
expose_php = On
; Resource Limits ;
max_execution_time = 30
                       ; Maximum execution tir
max_input_time = 60
                    ; Maximum amount of time ed
equest data
memory_limit = 48M
                   ; Maximum amount of memory a script may consume (8MB)
; Error handling and logging ;
; error_reporting is a bit-field. Or each number up to get desired error
; reporting level
; E_ALL
                - All errors and warnings
                - fatal run-time errors
; E_ERROR
; E_WARNING
                - run-time warnings (non-fatal errors)
; E_PARSE
                - compile-time parse errors
```



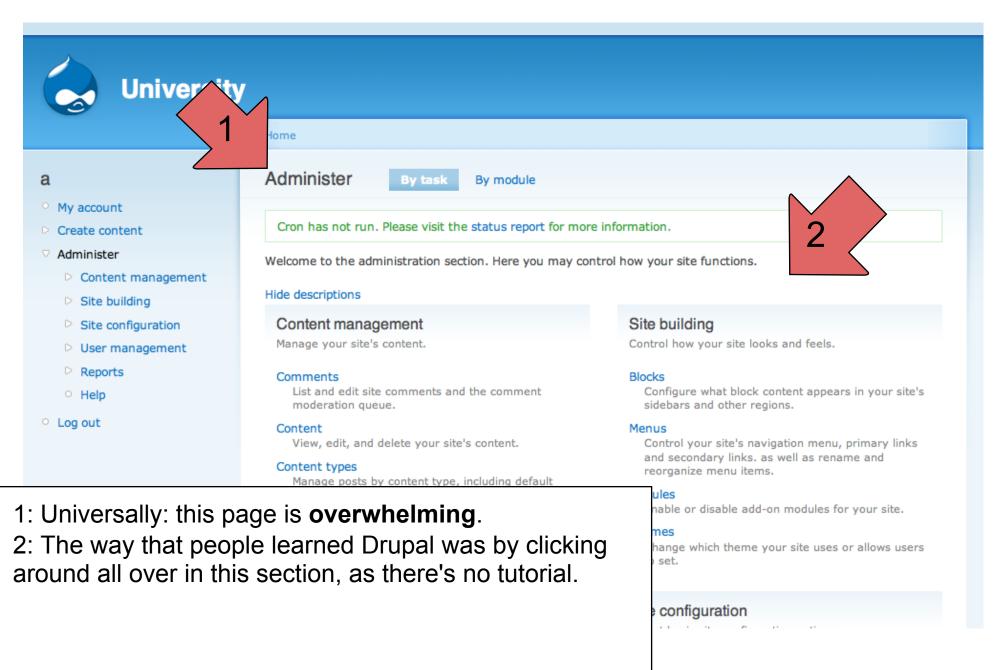
...Interesting...

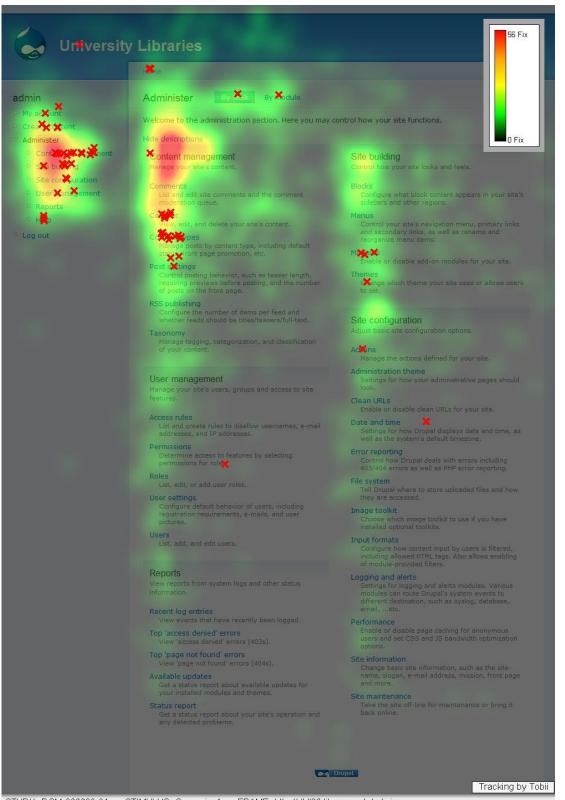


Well it starts off nice and clean, but then... 0-60!



Administration panel 1



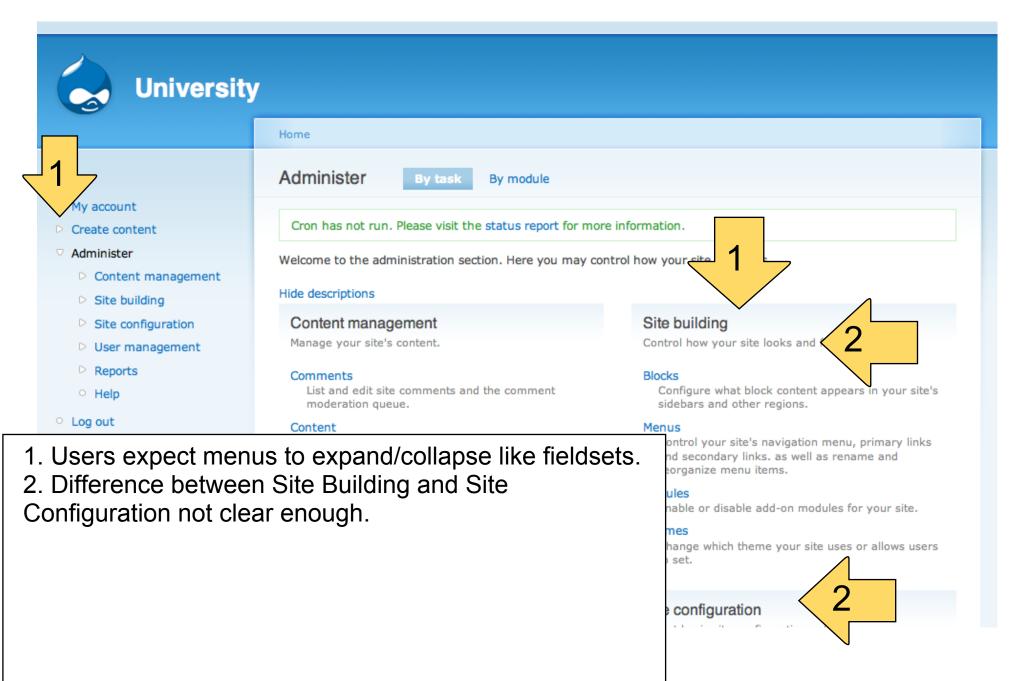


Where They Looked In The First 5 Seconds

Red Areas = Many Eye Fixations X's = Mouse Clicks

What was *missing*?? Probably the opposite. What wasn't there? There were so many options...

Administration panel 2



I didn't expect to feel so stupid. I don't like feeling stupid.



I need a tutorial. I need a tutorial.

I already lost the page I just created.



 We take our mastery of the "suck threshold" for granted.

Common tasks that take us 30 seconds to do can take a new user over 30 minutes to *find*.

 When users get stuck, they resort to "brute force."

Clicking on all admin pages, expanding all fieldsets, enabling all modules.

- Tabs were invisible
 - for key tasks, even on pages people had looked at multiple times for 20-30 minutes.
- No one clicked on "content types" without direction.
 - They hit create content, site building, input formats, actions, blocks, modules...

 Our help section is completely useless for new users.

No glossary, no search. *Module-based* help topics, rather than *task-based*.

Interesting workarounds.

One participant tried to create the workshop form by typing an HTML form into a block.

Stuff that was easy

Stuff that was easy

Logging in.

Hooray!:)

Permissions page.

Once they found it (after looking at "Access rules" first), they instantly understood what the page was for.

• User management.

This section was clearly labeled and instantly found.

Taxonomy.

This was actually shockingly easy.

Ummm. That's it.;)

Usability Improvements Gone Wrong

Usability improvements gone wrong

- Teaser splitter: huh?
 What's a teaser? What's a summary? What does this do?
- Menu settings look like required information because of its prominence on the node add form.
- Asking for help can kill your data.

 Hitting the "More information on input formats" link takes you away from the node/add form, and you lose your form data when you go back (in IE).

Usability improvements gone wrong

- Password security checking.
 Several users backed out in a panic because they thought they'd caused an error condition due to red text.
- Organization of administration page.
 Users visit Site building for everything, expecting to find things like "make a form" there.
- Collapsible fieldsets don't conceal anything.
 People end up clicking on all of them to see what's inside.

Usability testing lessons learned

Give users early success.

Have them complete a few "easy" tasks before you destroy their confidence.;)

Usability testing lessons learned

- Give users early success.
 Have them complete a few "easy" tasks before you destroy their confidence.;)
- You'll never look at Drupal the same way again.
 We all are experiencing "usability flashbacks" looking at the Drupal administrative interface. :)

Usability testing lessons learned

- Give users early success.
 - Have them complete a few "easy" tasks before you destroy their confidence.;)
- You'll never look at Drupal the same way again.
 We all are experiencing "usability flashbacks" looking at the Drupal administrative interface. :)
- Usability testing is exciting, edge-of-your seat excitement.
 - Same task done by 8 different people resulted in 8 different outcomes.

Let's make Drupal 7 rock!

- Drupal 6.1 is out, so UI, text, etc. cannot be changed.
- So...
 Target improvements for Drupal 7 core and Drupal 6 contrib!



How can you help?

View the full results on http://groups.drupal.org/usability

Convert the results from groups.drupal.org into *issues* at: http://drupal.org/node/add/project-issue

- Title issues as "Usability UMN: <title>"
- Link to issues from the results on groups.drupal.

Spec out solutions to the more complicated problems on the Usability group.

Q&A

Let's repeat this

Measure! Don't Guess

One of the best ways to measure is by Usability Testing. But we need access to resources to repeat this:

- Usability labs
- Lab facilitators
- Testing equipment
- Evaluators
- Observers
- Finances

Informal Usability Testing...

- ... can be just as valuable as formal testing.
 - GHOP usability tests on installer found major usability bugs

To get full value, we need tools and resources to capture and process data and user feedback.

Click Heat Map module is the first of such tools <u>drupal</u>.
 <u>org/project/click_heatmap</u>

by boombatower, a GHOP student

 Watch the Usability group for more details groups.drupal.org/usability

User Experience Goals

High level UX considerations

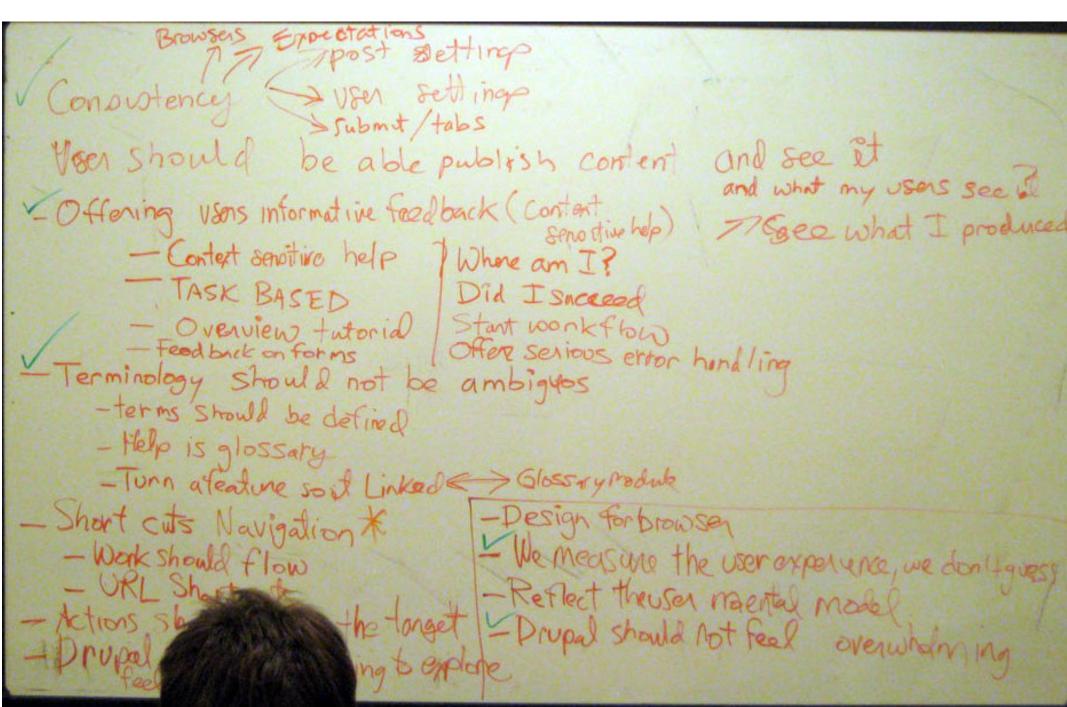
Why do we need User Experience Goals?

- Support developers to build good UIs
- Set a standard for evaluating UIs
- Expectations and goals for all UIs (in Drupal)





Brainstorming UX Goals



Measure the User Experience.

Guessing the user interface isn't enough -- Drupal aims to measure the user experience. Feedback and data on users' experience and interactions with Drupal's user interfaces informs of usability issues.

- Measure the User Experience.
- Consistency.

Consistency is a recognized property of usable interfaces. Drupal provides reusable user interface patterns for many user interface elements.

- Measure the User Experience.
- Consistency.
- Understandable Language.

Drupal aims to use language that is understandable by it's users. Help should be useful and readily accessible. Terminology should be <u>unambiguous</u>.

- Measure the User Experience.
- Consistency.
- Understandable Language.
- Not Feel Overwhelming.

Drupal aims to not make the user feel overwhelmed. Drupal aims to make complex tasks <u>seem</u> simpler and hide unuseful or irrelevant user interfaces.

- Measure the User Experience.
- Consistency.
- Understandable Language.
- Not Feel Overwhelming.
- Informative Feedback.

Drupal gives useful and helpful messages and details about users' actions to reassure the user, give them confidence and *guide them to related tasks*.

- Measure the User Experience. Guessing the user interface isn't enough -- Drupal aims to <u>measure</u> the user experience. Feedback and data on users' experience and interactions with Drupal's user interfaces informs of usability issues.
- Consistency. Consistency is a recognized property of usable interfaces. Drupal provides reusable user interface patterns for many user interface elements.
- Understandable Language. Drupal aims to use language that is understandable by it's users. Help should be useful and readily accessible. Terminology should be <u>unambiguous</u>.
- Not Feel Overwhelming. Drupal aims to not make the user feel overwhelmed. Drupal aims to make complex tasks <u>seem</u> simpler and hide unuseful or irrelevant user interfaces.
- Informative Feedback. Drupal gives useful and helpful messages and details about users' actions to reassure the user, give them confidence and <u>quide them to related tasks</u>.

Let's Get Consensus

- Measure the User Experience.
- Consistency.
- Understandable Language.
- Not Feel Overwhelming.
- Informative Feedback.

This is a Working Draft.

Join the discussion and process:

- The Usability group: <u>groups.drupal.org/usability</u>
- This Document: groups.drupal.org/node/9252

Destined for a high level in the drupal.org Handbook Possibly next to Drupal's mission and principles?

- drupal.org/mission
- drupal.org/principles

66

I wish there was a way to switch between the backend and see the results.



Conceptual Barriers

Conceptual barriers

• Where do I start?

Missing step-by-step, task-based, conceptual help, tutorials, and example content.

Where did my page go?

Users often lose all sense of context.

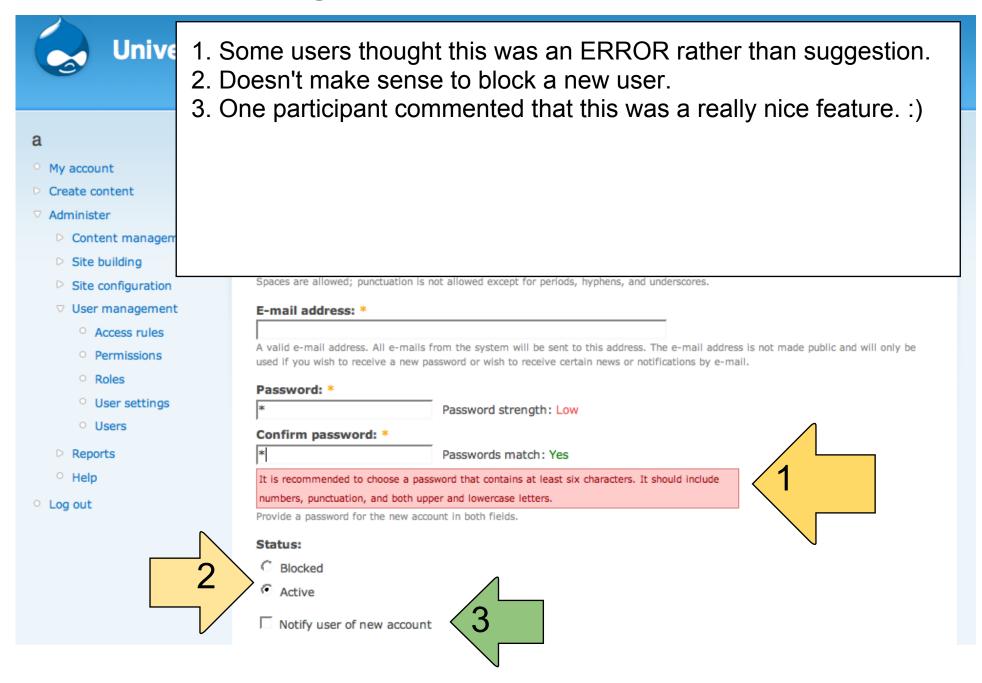
What is "content?"

The word "content" is used ambiguously throughout user interface. Content type, Content management, Create content...

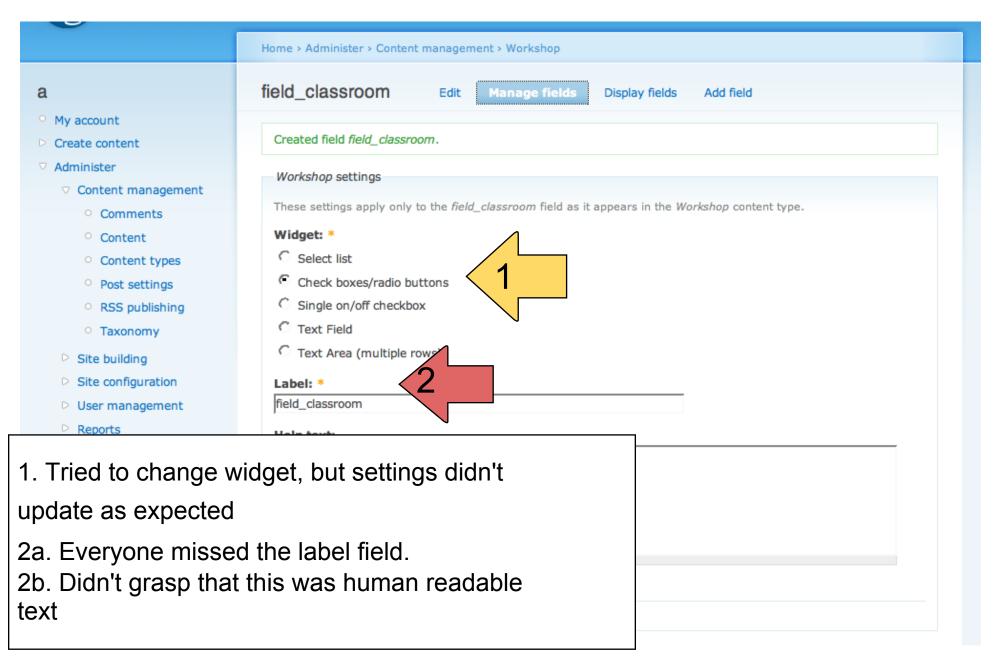
Conceptual barriers

- How do I add a form to my page?
 - Drupal doesn't communicate its mental models well. Users thought content types were fields, content types were content...
- Where's that key word?
 - Words like"form" and "field" are hardly used in the interface, so users resort to guesswork.
- What do my users see?
 - No clear distinction between admin and user-level views. No way to **preview** things like node add forms as you're creating them.

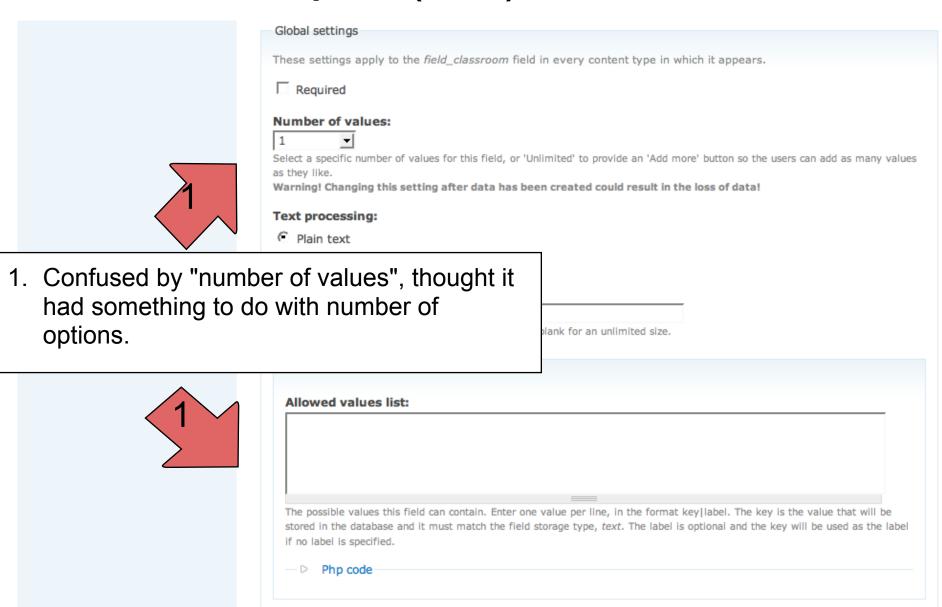
Add user page



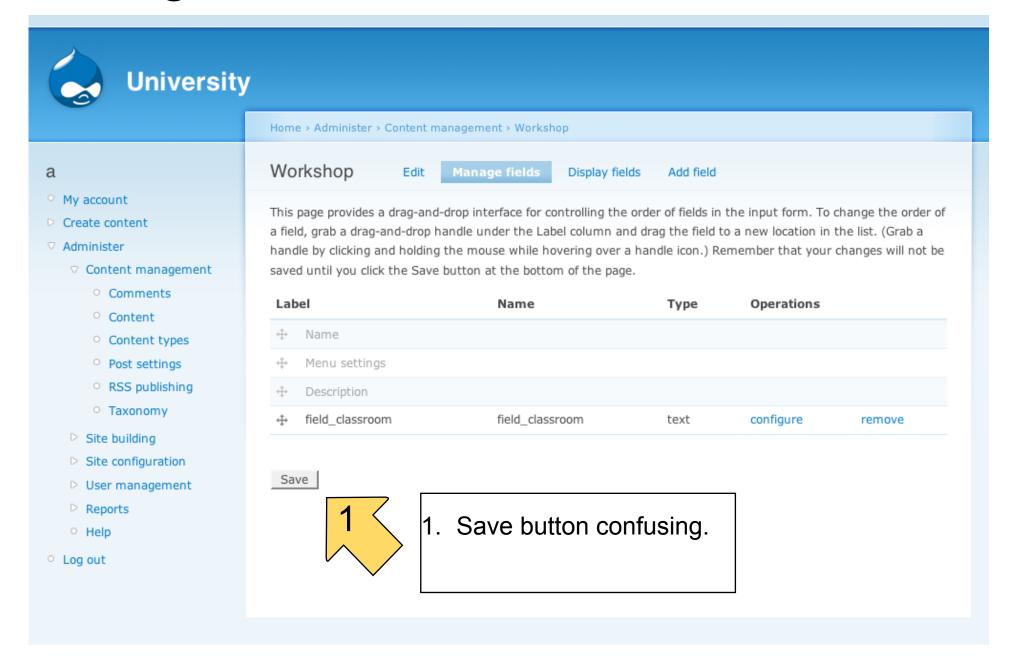
Add field step 2 (1/2)



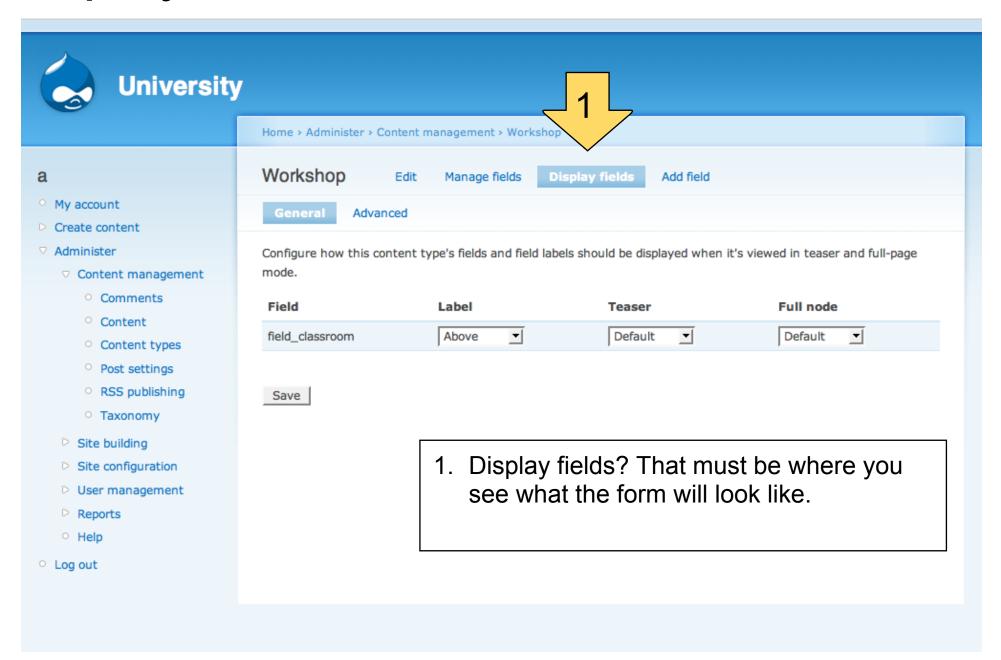
Add field step 2 (2/2)



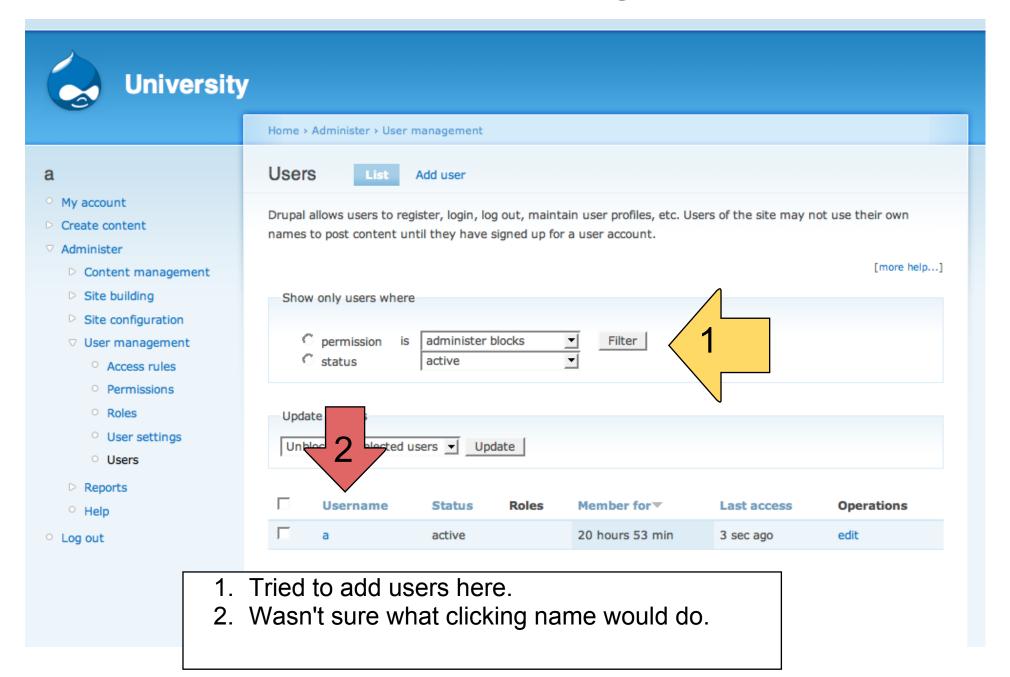
Manage fields



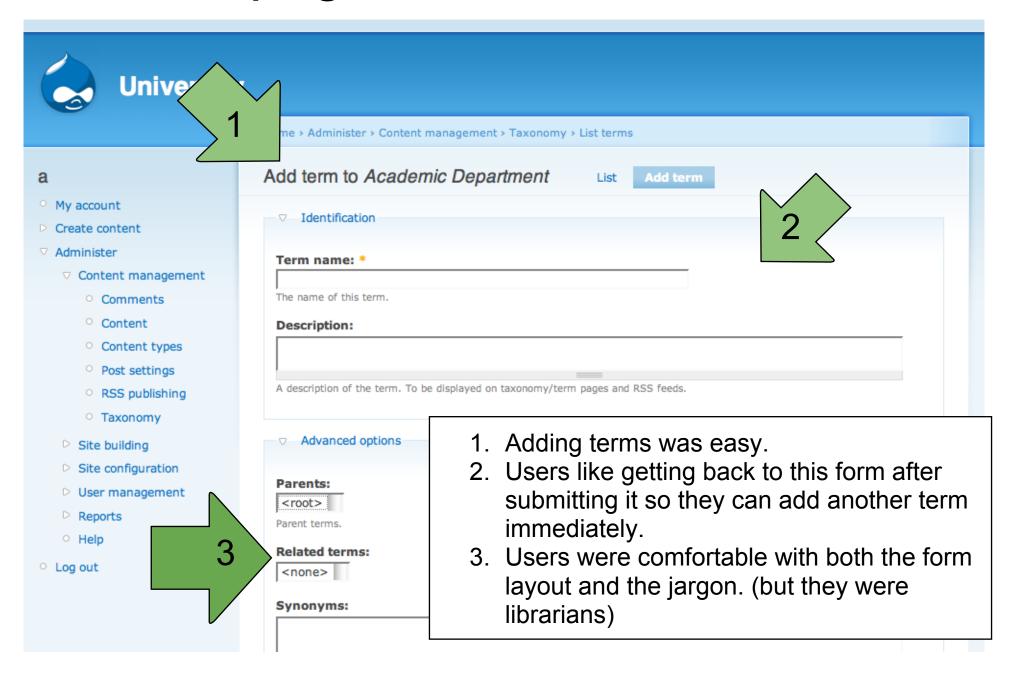
Display fields



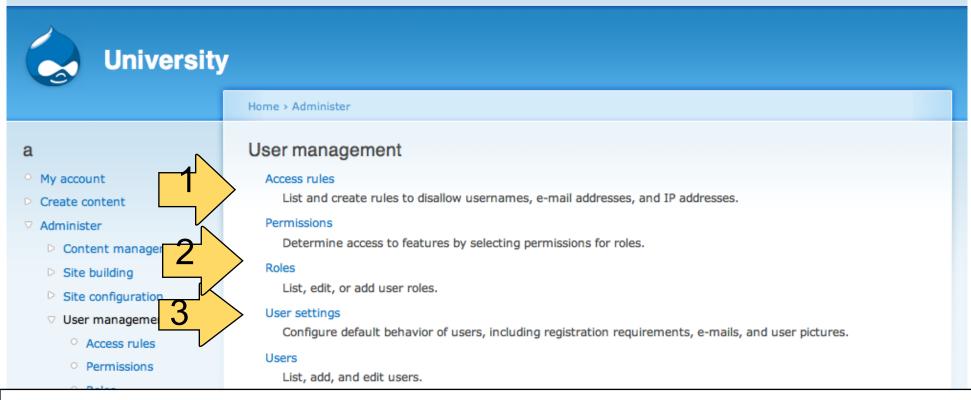
Users administration page



Add term page



User management page



- 1. Lots of people clicked "Access rules" looking for permissions.
- 2. Some users ignored "Roles" and assumed that only admin created librarians would use the site.
- 3. Some clicked User settings but instantly understood that was the wrong place to be.