



MEAP Edition
Manning Early Access Program

Copyright 2008 Manning Publications

For more information on this and other Manning titles go to
www.manning.com

Hello! Drupal ToC

Part 1 Drupal's core, a strong foundation

- 1. Drupal, a hammer that hits many nails**
- 2. Content is king**
- 3. Taking the tax out of taxonomy**
- 4. Creating a community**
- 5. Wrapping up the core, bringing it in all together**

Part 2 Building on the foundation

- 6. Taking control of your pages**
- 7. Multimedia—bringing color and life to your site**
- 8. Forming pages the way you want**
- 9. People and search friendly**
- 10. Creating the look—theming Drupal**

Appendices

- A. Where to find more Drupal support**
- B. Installation and hosting issues**

Part 1

Drupal's core, a strong foundation

In the Drupal world there are two broad realms to be explored: the core Drupal module and themes, and the contributed add-on module and themes. The core of Drupal is streamlined, robust and secure, the basics needed for a website. The core of Drupal also provides all the hooks and connection points for other modules to easily integrate with your Drupal site. The add-on modules and themes extend the core functionality in new ways. To avoid bloating all site with stuff they may not need, these extra modules are not packaged with the core of Drupal. The site manager is expected to tailor Drupal with add-on modules as needed.

In Part 1, we will cover the core functionality of Drupal. We will open up Drupal and see exactly what it can do for us, understand the key administration features and how the basics of building a website work. Chapter 2 explores what exactly content is in Drupal, how it can be created and maintained. The different page types Drupal ships with, as well as multi-lingual and RSS feed aggregation will also be covered. Chapter 3 dives into way to catalogue and structure your site's content. Chapter 4 moves to how visitors and members of your site can interact with each and your content, bringing community and life to your site. Finally, in Chapter 5 we wrap up some of the loose ends of the core modules, explaining security and traffic concerns, page tracking and other administrative tasks.

Throughout this part and the next, a site will be built as a follow along example of creating a site in Drupal. Upon completing Part 1, you will have been introduced to all parts of the core package of Drupal. Tweaking and mastering Drupal may take some time, but this is all you need to know for a solid start, leading to Part 2 where we explore many of the more popular and useful add-on modules.

1

*Drupal, a hammer that strikes
many nails*

*"Building a website takes time; don't make it harder by
reinventing the wheel."*



Building a website is like building a home. In building a house, you start with the basics and then keep layering more material and detail until it is done. You start with a foundation and framing, then plumbing and electricity, enclose the interior and exterior walls, do the roofing, flooring, throw lots of paint on and then move in your furniture.

If only it were that easy.

Don't forget all the kitchen and bathroom cabinets, hanging all the doors and windows and all the landscaping that needs to be done. And I should know as I am updating a 50 year old house as I write. The kitchen needed to be gutted, the floors all re-laid, we painted everything again and the flowers are all dead.

Websites are no different. You need a strong technological foundation to construct your site, coupled with content and member management tools, multimedia processing, navigation links, category listings, and lastly a good looking theme. Again, not as quick as our hearts would imagine.

We all know that if you build like a professional with top of the line materials, the house will stand the test of the time. Build it on the quick, with shabby material and it might fall over in adversity. Construction is construction, be it a building or a website.

Drupal and its modules are your professional grade tools from constructing websites.

Gladly, Drupal and its modules are your professional grade tools from constructing websites, and since you are reading this book you are on the road to building like a professional too.

JUST MAKE IT WORK



Using Drupal means you don't need to reinvent the wheel for all the features on your website. They are already provided by Drupal. This allows you to focus your time and energy on things that are important to you; creating content, marketing the site, and reaching out to your Internet community.

Similarly to how we use cars to get around town without fully understanding the engine that propels us forward, many people want to publish a blog post, add pictures to a gallery and talk with their friends in a forum without having to understand the programs and tools that make it all happen.

Do you really care how a member registers, or how a picture is saved to the web server?

This chapter will be a quick study of what Drupal is, what it can do and where it might take you. I will offer a glimpse of the different types of sites you can construct using Drupal,

as well as introducing the community of developers, marketers, technical writers and other contributors who support Drupal and are propelling it forward. Lastly, to get our feet wet with real site building, we will create the first page of a new site and take a brief trip into the administration area

1.1 Drupal, your configurable tool kit



When I see a website proposal, I have the tendency to say, 'Drupal can do that'. One of my bosses reacted one day by saying, 'Drupal might not be the hammer for every job', and I do agree with him at times. But Drupal isn't one hammer, but a hammer with many interchangeable heads. It is a tool that can be made into nearly any kind of website you can imagine. With some configuration, creativity and the right modules, much can be made using Drupal. Because of the plug-in module system, new modules can be created to perform any task special to your site.

Drupal is a Content Management System. It contains all the tools to build and run your website, and a theming system so you can create the look you want.

NO NEED TO REINVENT THE WHEEL



In building a house, the contractors always makes sure they are using the right tools and materials for the job in front of them. Building websites is the same way. A static site listing directions to the coffee shop you own, and a contact page with a phone number doesn't need to be built in Drupal. But such a site is rather dull anyway. You wouldn't have picked up this book if this is all you needed.

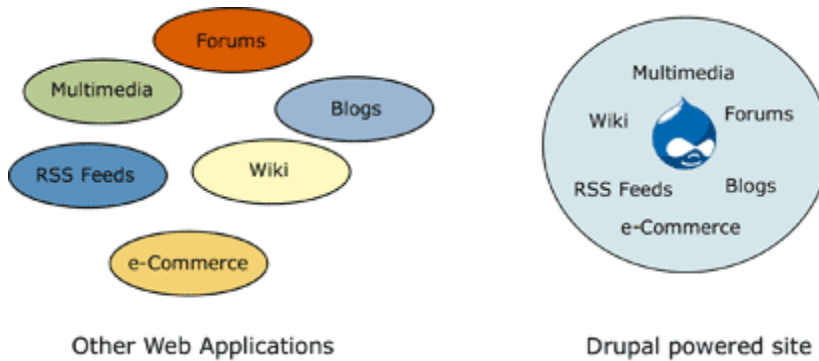


Figure 1.1 No need to have disconnected functionality in a website. With Drupal all the features and services are under one roof.

For a more complex website, Drupal is able to help along your way. You don't need to integrate forum software with you blogging software, and add in a different e-Commerce system. Drupal and its add-on modules make one seamless system. Not all the features that Drupal has to offer may be used for all websites, but knowing they are all under the same roof really helps speed things along. Some of the below examples are beyond the scope of this introductory book, but should fuel interest in the open-ended opportunities that your new site may undertake if it is powered by Drupal.

Drupal Installation Profiles

An installation profile is a pre-defined starting installation of Drupal beyond the normal installation. Module configurations, pre-defined tagging lists and other initial data may be included in an installation profile. See Appendix [[?]] for more information regarding where to find and how to use installation profiles.

1.1.1 Blogs (group and individual)

Drupal powered blogs are everywhere. Some are personal blogs for individuals, and others are company blogs for multiple employees or writers. <http://drupal.org/planet> is a list of many bloggers who write about Drupal using Drupal powered blogs. It would be more correct to say that these are Drupal powered websites that contain blogs.

1.1.2 Family and friends sites

Many people want to keep a centralized place on the Internet to stay in touch with family and friends. Keeping up to date with life stories, posting pictures throughout the year, and chatting from different regional areas can all be done with a Drupal site.



1.1.3 Non-profit charity or activism sites

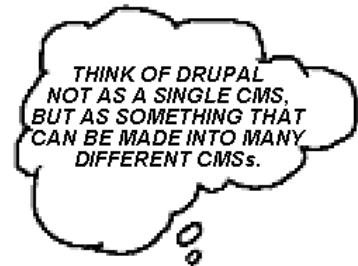
A site trying to rally people around a cause, or trying to effect change in their community will need good tools to get their message out. Forums for discussion, polls for determining opinions, announcements, and multimedia elements all allow the contributors to remain focused and engaged on the cause at hand. The website is a megaphone for their cause, and they don't want to spend too much time fiddling with the megaphone, but getting their message out. Drupal accomplishes this for them.

1.1.4 E-Commerce sites

Though the configuration needed to create a robust e-Commerce site is outside the scope of this book, Drupal is equipped to perform all the tasks needed to start an online storefront. From defining and displaying products, to taking payment, printing receipts and keeping track of inventory, Drupal plug-in modules are ready to help launch your on-line business.

1.1.5 Community publishing and social networking sites

Loading a few more modules, Drupal can become a full fledged publishing engine for a community newsletter or even a profit making newspaper. Editorial controls, review and rating systems and user permission settings can be used to control publishing workflows and determine what user contributed content is the best. Similarly, an array of modules have been built explicitly around letting members self form into groups which can have their own announcements, events, forums and membership.



Drupal in Action

There may not be a Drupal module to do everything you want. Eventually you will hit a boundary of what Drupal can do without writing any development code. When that happens, Drupal in Action will help you write your Drupal modules like a professional.

There are many other types of websites, and you can of course make hybrids of these main types. These are just a few examples to still your imagination of what you and Drupal can do.

1.2 Drupal, becoming a giant among its peers



The diversity of configurations and implementations alone will not be enough for you to know if Drupal is the right choice for you. Picking a 'here today, and gone tomorrow' CMS can destroy the momentum of a site, leaving it with out-dated software. Drupal isn't a flash in the pan project and you need to understand how it stands out against the rest of a crowded field of CMSs like SharePoint, Joomla! and WordPress as well as online projects like Wetpaint and Squarespace.

Knowing what is supporting Drupal may enlarge your imagination for where your website may go. To confidence in the strength of Drupal, let's discuss a few different ways to measure its success. The breadth of the developer community, speed of development, depth of community support and outside recognition all can be key indicators of a projects current energy and its future success. In each of these areas, Drupal is thriving.

1.2.1 Open source project

First, Drupal is an open source project. This means that the code the makes Drupal run is freely available for anyone to use and modify. Free software is in sharp contrast to SharePoint from Microsoft or other commercial products which could cost you hundreds of dollars.

The code is open to any developer who can make small or large updates and submit them back to the Drupal project. The more eyes checking for errors, usually results in a less buggy system.

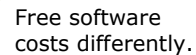
Also, with developers not worrying about copyrights and licenses, they are free to collaborate and extend the software project without competition concerns. See this Wikipedia article, http://en.wikipedia.org/wiki/Open_source_software, for a more in-depth explanation of what it means to be, and the benefits of, an open source project.

Open source program - A program in which the source code is freely available for anyone to use and modify.

Windows is buggier than its open-source rival, Linux.

DOES DRUPAL COST ME NOTHING?

The first time someone comes across an open source project, they ask this question, 'Does it really cost me nothing?' The right way to answer this is with the old standby from open source projects in general, 'It doesn't cost nothing, it costs differently'. Drupal, and all other open source projects, are free to download, so you have no up-front charges like a commercial product that might cost \$200. Where the 'cost' is found, is that people in their free time contribute back to Drupal. It is true that some companies pay their developers to contribute to Drupal, but this an exception, more than the rule.

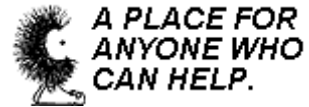


Free software costs differently.

The hope is that as everyone gives a little time, energy or code as they are able, Drupal becomes a better product for all and moves forward even faster.

1.2.2 Strong developer community

Just like commercial companies, the founder of Drupal and many contributors to Drupal have Masters or PhD degrees in computer science or other programming related fields. Other key contributors have decades of software



development experience under their belts. Though the scores of Drupal rock stars are important in moving Drupal forward, there are hundreds and hundreds of other developers of varying skill levels making Drupal better. From fixing bugs and typos, to creating better user interfaces, there are tasks for programmers of all skill levels. Figure 1.2 demonstrates the growth of the core development community.

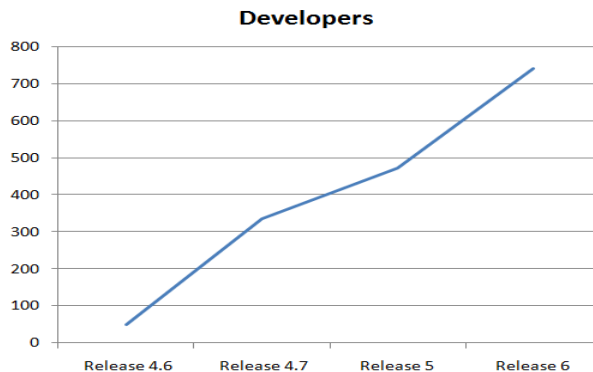


Figure 1.2 For each release of Drupal, the number of developers who contributed are noted and it is trending upward. In the span of two releases the number of code contributors for Drupal has more than doubled.

Even more impressive is that level of code contributions has grown more steeply than the number of developers. Figure 1.3 shows the curve of committed patches (code changes) that

©Manning Publications Co. Please post comments or corrections to the Author Online forum: <http://www.manning-sandbox.com/forum.jspa?forumID=497>

were involved for each of the last four major releases. Each patch isn't necessarily more code added to Drupal, as it could also represent improvements, or rewriting of code to gain efficiencies. Either way, each patch represents an incremental improvement to Drupal and those increments are coming faster and faster.

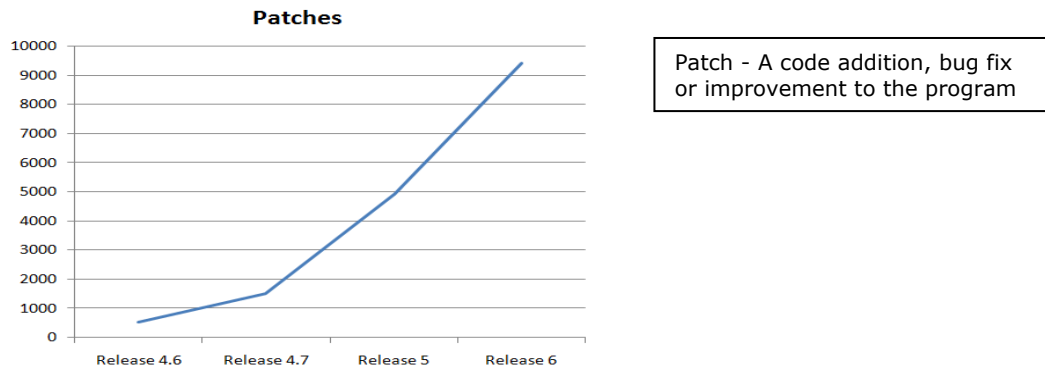


Figure 1.3 The near exponential growth of Drupal patches is another signal of the health and vitality of this open source project.

As can be seen from these two charts, the number of people contributing directly to the code grows by leaps and bounds each Drupal release.

1.2.3 More than developers contribute to Drupal

Obviously, without code writing developers, a software program doesn't move forward, but they are only a part of a larger ecosystem that makes up the Drupal project. Documentation, infrastructure and support groups round out the activities of quality control checks, usability testing, support forum help, and technical expertise that prop up the entire Drupal project.

**DEVELOPERS, WE
DON'T NEED NO
STINKING
DEVELOPERS.**



Here is a list of some key numbers regarding the people who also help Drupal grow:

- Over 700 people have contributed to the Drupal.org handbook pages
- 300 past and present users have helped the documentation team
- Over 100 people maintain the Drupal.org website infrastructure
- Over 400 Drupal related groups meet online at groups.drupal.org
- Drupal user groups dot the United State, Canada and much of European Union
- Drupal conference attendance has double each of the last three years to nearly 1000 people

This may be more than enough facts and figures to get across the staying power of Drupal. Far from being on the decline as some of the other CMS competition, Drupal is accelerating its growth.

1.2.4 Outside recognition and financial backing

When using a service or hiring an employee, you should always check the references. Drupal is no different.

FINANCIAL AWARDS AND CONTRIBUTIONS

In the summers of 2007 and 2008, Drupal was given over \$100,000 each year by Google's Summer of Code program. This program is used to encourage and grow promising open source projects. Drupal was given by far the most allocated to any CMS development.

Drupal and its developers have also been recipients of The Knight Foundation, Knight News Challenge, which awards \$5 million a year to news related technology projects, with Drupal projects receiving two grants worth over \$200,000. In a special nod to Drupal, in the first half of 2008 the Knight Foundation established the Knight Drupal Initiative, which is an ongoing funding grant to any Drupal project or module that will provide tools for digital publication and improve their communities by supporting the free exchange of information and ideas.

Lastly, many companies and site owners contribute to Drupal by directly sponsoring developers as they work on Drupal. In essence they pay contracting fees for Drupal development that all Drupal websites profit from.

If major players find value in using Drupal, then it may surely meet your needs as well.

USAGE AND AWARD RECOGNITION

In July 2006, IBM chose Drupal out of all the other CMSs to be the content system in their open source development suite. At that time this was the highest visibility Drupal had attained. More recently, major publications like the New York Observer and Popular Science, music labels like Warner Brothers Records and huge non-profit organizations like Amnesty International and the United Nations are using Drupal to power their websites.

And the winner is...

Everyone likes a winner, and as Drupal matures from its humble beginning, it has steadily picked up awards and recognitions. In 2006 is placed 2nd, and then 1st place in 2007 as the best CMS as judged by a panel from Packt Publishing. 9 different Drupal sites won design awards from Horizon Interactive Awards. In early 2008, Drupal won a CNET Webware 100 award in the publishing category.

Such patronage helps Drupal stand out among the dozens of other choices of content management systems. If all these major players find value in using the award winning

**ALWAYS
FOLLOW
THE MONEY**



Drupal over other systems or programs, then it may surely meet your needs as well. But there are a few more reasons to use Drupal.

1.2.5 Breadth of Contributions/Plug-in functionality

If the tool can't do what you want, you should get a new one. With Drupal, the list of plug-in modules that have been developed keeps growing, so you may never have to worry about having the wrong tool.

Before Drupal 4.7, only 300 modules existed. When Drupal 4.7 was finished, over 800 modules had been made. With Drupal 5 development nearing a finish, there are almost 1600 modules. Drupal 6 is still working up a steam and has over 500 modules developed for it.

Drupal modules cover such diverse areas including:

- e-Commerce and advertising modules
- Community and Social networking systems
- Content and theme related modules
- File management and media utilities
- Search and security tools
- Hundreds more ...

Such a large count of modules demonstrates the diversity of Drupal, the sites that are powered by Drupal and the number of people contributing back to Drupal with their own efforts. In Part 2 we will cover more extensively the different kinds of modules that can be added to your Drupal powered site.



1.2.6 Forging a new path

Drupal may not be able to do everything, but it sure is trying. Each release of Drupal tries to include new tools for the site owner and users, new ways for developers to make cool new modules, and better theming tools for designers.

Can it take us to the Moon too?

DRUPAL GETS RID OF THE WEBMASTER

Many releases ago Drupal made the role of the full-time webmaster mostly obsolete. The HTML writing, database accessing guru isn't needed when Drupal is doing all that work for you.

DESIGNERS AND DEVELOPERS NEXT

A stated goal of recent releases has been to try and get rid of web designers and developers for Drupal powered websites. Release 5 introduced a color wheel for selecting new color options in themes and Drupal 6 improved the theme engine and added new theming tools generating many more ready to use themes.

YOU WANT TO GET RID OF ME?



TIP

See Chapter 10 for more information regarding theme usage and check out Chapter 8 for references to the Panels layout module.

In the older days of Drupal, all new page types had to be created as new modules, which really the page type options of those without developer prowess. Then the Content Construction Kit module was created, empowering site owner to create new, complex page types on the fly. Just load in the module and start working with it.

TIP

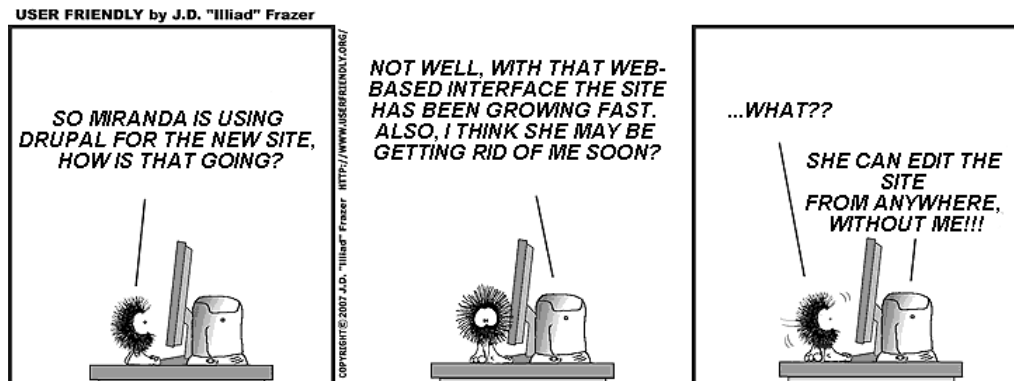
See Chapter 6 for more details on how to use the CCK modules and its constellation of add-on modules to create content rich page types.

Removing either the developer or designer roles isn't entirely possible. Site owners are always dreaming up custom themes or fun features that a design or developer will need to create. But with the latest releases of Drupal and the ever increasing number of plug-in modules, you will be able to do much more before you need to write code or hire out help.

We have covered a lot of ground establishing the strengths Drupal and its contributors. Drupal is no flash in the pan project, but is forming a wave cresting over the Internet, and your Drupal powered site will be riding that wave.

Where will you ride the Drupal wave?

1.3 Say Hello to Drupal



With the conversation of the benefits of Drupal as a CMS behind us, let's get to our new website. Throughout this book, we will be creating a working example of how to construct a new website.

©Manning Publications Co. Please post comments or corrections to the Author Online forum: <http://www.manning-sandbox.com/forum.jspa?forumID=497>

1.3.1 Hello RCHobbyFun.com, an extended example

Nearly everyone has played with a remote controlled toy, either as a child or with one. Maybe it was a small single battery car, a small mechanical dog that you received as a present or you watched as your uncle brought by his remote controlled airplanes for a spin. A site dedicated to this fun hobby shall be our extended example to ponder the points of Drupal.

GOALS FOR THE SITE

RCHobbyFun.com desires to be a great repository of well informed radio-controlled articles and a great community for enthusiasts. With blogs and forum, members will be able to share radio controlled triumphs and horror stories and show off their models through picture galleries and through movies. The hope is that RCHobbyFun becomes a destination for users who need help building and maintaining their radio controlled vehicles, as well as place to find camaraderie with other builders.



RCHobbyFun.com - A destination for users in need of help building and maintaining their radio controlled vehicles.

ORDER OF THE BUILD

As we explore Drupal and build this site, there will be some features that we skip over because they don't fit our true to life example. Nevertheless, all core modules and many of the features of the contributed plug-in modules will be described.

In Part 1 we will focus on the content of the site, the different page types and other ways to get information in front of your visitors. Then we will work on the site structure creating a site hierarchy and cataloging the content, followed by user management tools and ways to establish a community of users on the site. We will then conclude with a final look at the remaining utility modules in the Drupal core.

Drupal is well suited for community web sites.

In Part 2 we start spicing up our site with more creative page types, including different ways to place multimedia content in the site. We will then look at various utility modules that help with site administration and better expose your site to both visitors and the search engine spiders. Lastly we will end with a few chapters concerning custom page layouts, content aggregation and whole site theme updates.



1.3.2 Basic anatomy of a page

In Chapter 2, we will begin an extended example of constructing a site, but for now let's just post one new page.

If your installation is done correctly, you should see a page similar to the one shown in Figure 1.4 when you navigate to your website domain. What is seen is a temporary placeholder page until you post your first piece of content.

NOTE

See Appendix ?? regarding downloading and installing Drupal.

©Manning Publications Co. Please post comments or corrections to the Author Online forum: <http://www.manning-sandbox.com/forum.jspa?forumID=497>

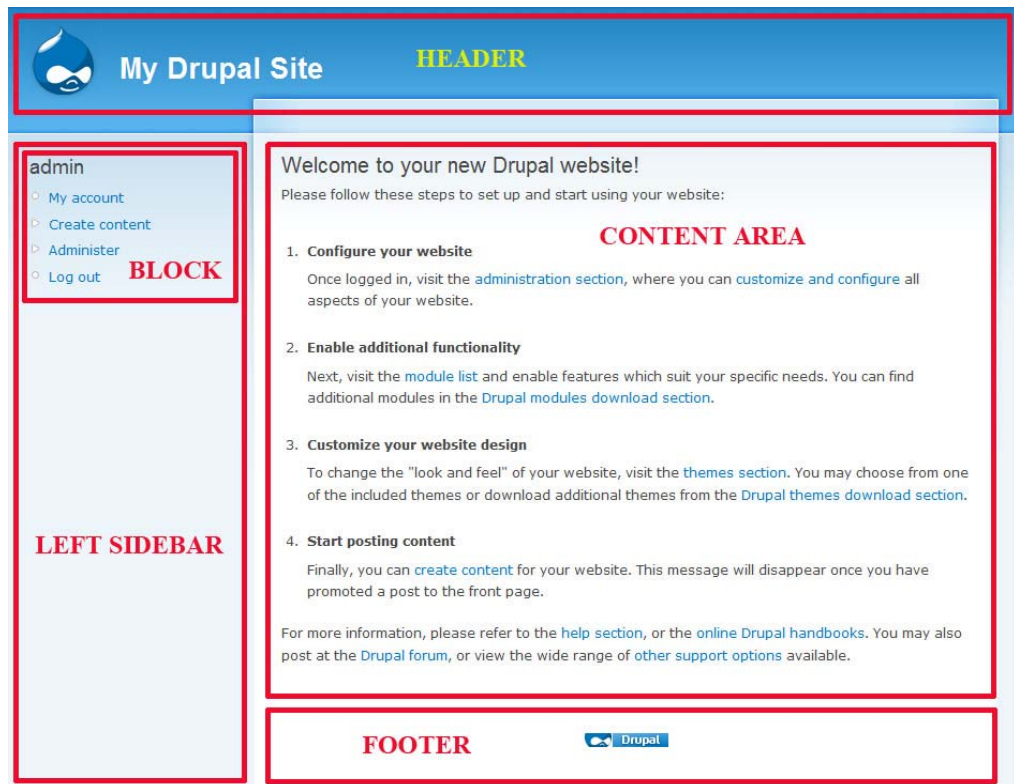


Figure 1.4 A simple page broken down into regions. Regions can be moved around depending on the theme being used. One or more blocks of content can go in each region.

Before creating that new page, let's first dissect what we are looking at.

1. Header - Usually displays on all pages
2. Left Sidebar - Only displayed is a block is present for the page being viewed
3. A block in the left sidebar - Display depends on the page being viewed
4. Main Content section - Something is shown here for all pages
5. Footer- Usually displays on all pages

We will cover all the aspects of a page and its regions in depth as we proceed.

TIP

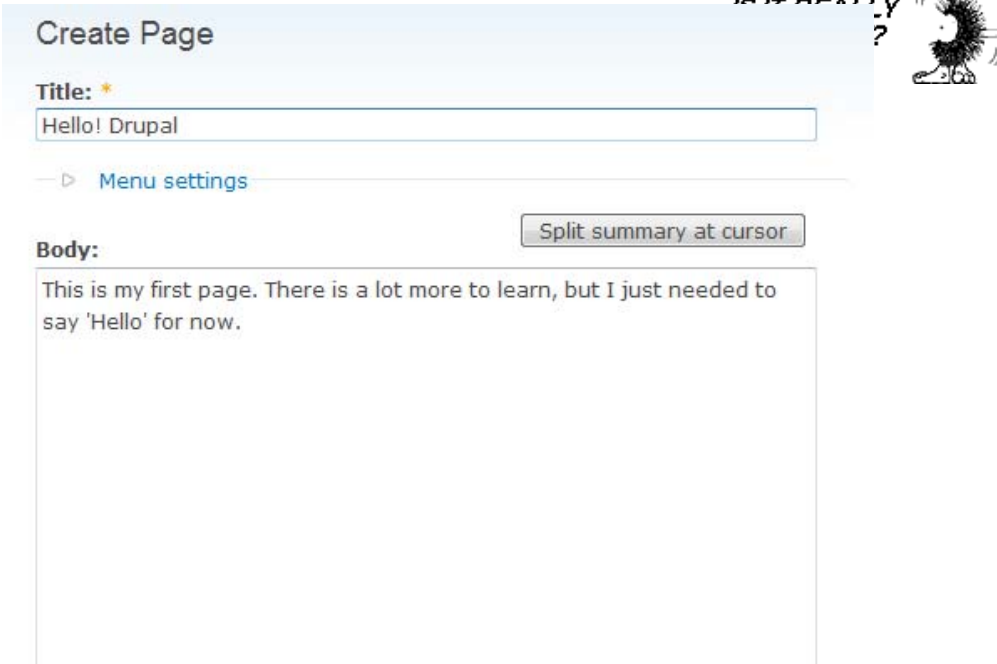
See Section 2.1 for more discussion on the different parts of a page, and Section 2.3.1 for more about regions. See Chapter 10 for more information regarding themes.

For now it is enough to know that each region has its content defined in different ways. New pages or articles will be displayed in the Content area, with the other regions controlled through other mechanisms. This is useful as you only have to worry about one aspect of the page at a time, and in the case of the header and footer, you usually once have to set them once.

1.3.3 Posting your first page

Let's go for the quick victory and post a new page to our website. Since we want to get this show going, click the Create Content link under step 4, Start Posting Content. A new page will be displayed with two choices of content: A Page or a Story. Click on the Page link to get to the Create Page form, similar to Figure 1.5. Creating and editing content always is done through one of these web-based forms.

Use the Preview button to check your work before saving.



Create Page

Title: *

—▷ [Menu settings](#)

Body:

This is my first page. There is a lot more to learn, but I just needed to say 'Hello' for now.

Figure 1.5 All content in Drupal is created through web based forms like this one. The Title and Body are the basic requirements to post a page.

I don't want to overload you right now, so there a few things we are going to ignore right now as we post the first page. The Title is exactly what you would expect it to be, the title of

the page you are about to create. Enter 'Hello! Drupal'. Now jump to the Body section and enter any text you want.

When you are all done, scroll down and hit the Preview button to check your handy work. In the Preview display, the screen will show you what the new page will look like, with the form displayed underneath. If all is well, press the 'Save' button and your page will be created.

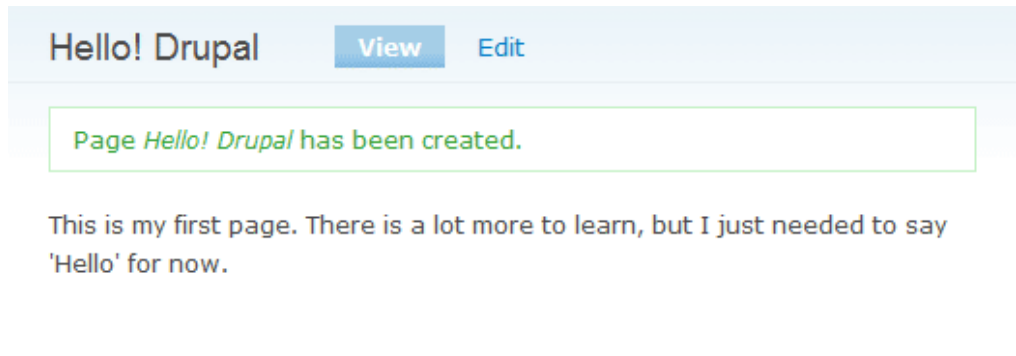


Figure 1.6 Creating new pages is as simple as filling in a web based form.

Congratulations! You have created a new page on your website.

Finding more information

For deeper explanations regarding the items we skipped over, see:

Menu settings – See section 3.x

Split summary at cursor – See section 2.1.1 regarding teasers

Input format – See section 5.x

Comment settings – See section 4.x

All other options – See section 2.1 regarding publishing content

Please bullet this list in the sidebar.

That is all it takes to create a simple page in Drupal, but there still so much more to do.

1.3.4 An excursion into the administration area

Before we leave this section, a brief stroll in the administrative areas of Drupal is needed. This is done by hitting the Administer link in the navigation menu. Only users with the correct permissions will see the Administer link and be able to access the admin area.

Site administration is broken into five basic categories:

- *Content Management* – All the tools to create and manage site content.
- *Site Building* – Control how your site looks and feels
- *User Management* – Manage your site's users, groups and access to site features
- *Site Configuration* – Adjust basic site configuration options
- *Reports* – View reports from system logs and other status information

Each Administration section will be covered in later chapters.

Each of these areas will become fully explored as we construct the new site. Instead grouping the administrative links by function, they can also be grouped by module by pressing the 'By Module' link at the top of the page. As can be seen in Figure 1.8, any important messages that need attention will be displayed on the main admin page.

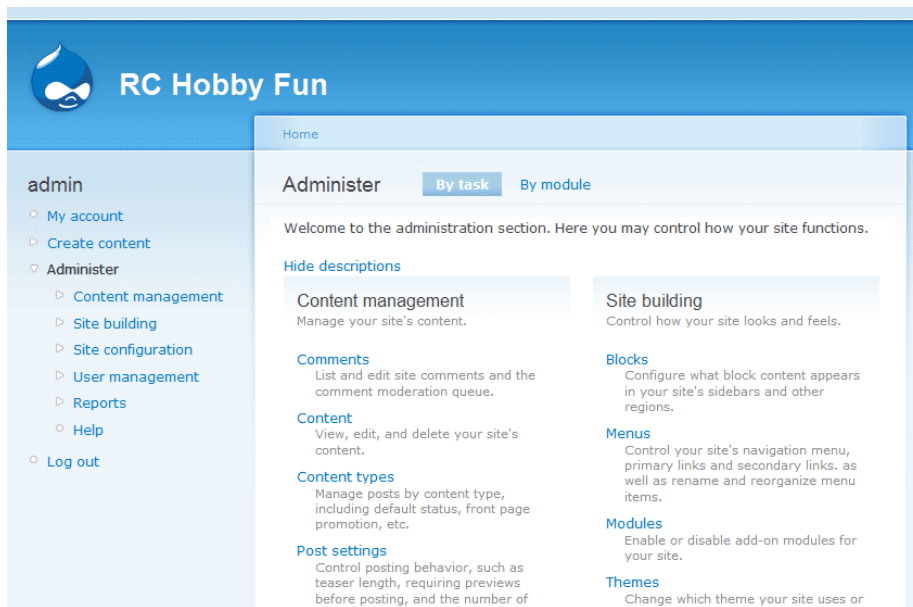


Figure 1.7 The main Administer page displays important status messages. All the different settings, site building and content management tools are also grouped on this page.

Notice in Figure 1.7 that the navigation block has also expanded to include a few more links. Section 3.x will greatly expand your understanding of how these menu work and can be constructed.

Before moving further, let's see what we have covered so far.

1.4 Summary

USER FRIENDLY by Illiad



CMSs like Drupal are powering websites all across the Internet. They leverage the knowledge and experience of hundreds of developers over many years to create systems for managing websites empowering non-technical people to create and maintain an online presence. You now can see that Drupal is rapidly becoming a shining star in the crowded CMS marketplace, and the tools available to you through Drupal, are becoming more numerous and better with each release.

Aiding Drupal's rapid expansion are the developers and support contributors that make Drupal a healthy, vibrant community that is driving the platform forward. Outsiders are consistently taken back by the sheer numbers contributors and the camaraderie felt among the community. With the keen interest and grant funding by big players like Google and the Knight Foundation, and numerous other sponsors of the project, Drupal is ready to break out from being a rock star start up project, to become a titan in the CMS arena.

Throughout the rest of the book, our example site, RCHobbyFun.com, site will be constructed as you read, exploring with you the different modules and tasks needed to create a new Drupal site. Web site creation best practices will also be sprinkled in with the Drupal know-how to better aid the success of any site you build.

