

NEW

Genius Guide



A comprehensive masterclass
to becoming an instant expert

VOLUME 2

WORDPRESS

Master the expert skills needed to create better blogs



**Become a
WordPress
guru!**

Protect your site • Customise with CSS3 • Pro guide to plugins



Genius Guide

A comprehensive masterclass to
becoming an instant expert

Welcome to WORDPRESS

WordPress is one of the most advanced content management systems on the planet. Not only does it offer simple ways to maintain your website, but endless customisation options mean you can add plugins and widgets to fantastic pre-built themes. What's more, with WordPress you don't have to stick to what they give you, it's possible to build your very own theme framework – and this book will walk you through how. Inside you will find in-depth guides to essential settings, recommended themes and plugins, and loads of tutorials for personalising your blog or site. WordPress is a treasure trove of goodies and it's amazing what you can achieve with the assistance of CSS, HTML and Photoshop. This newly revised edition will help you build on your existing knowledge, so you can become a true WordPress genius.





Genius Guide
WordPress

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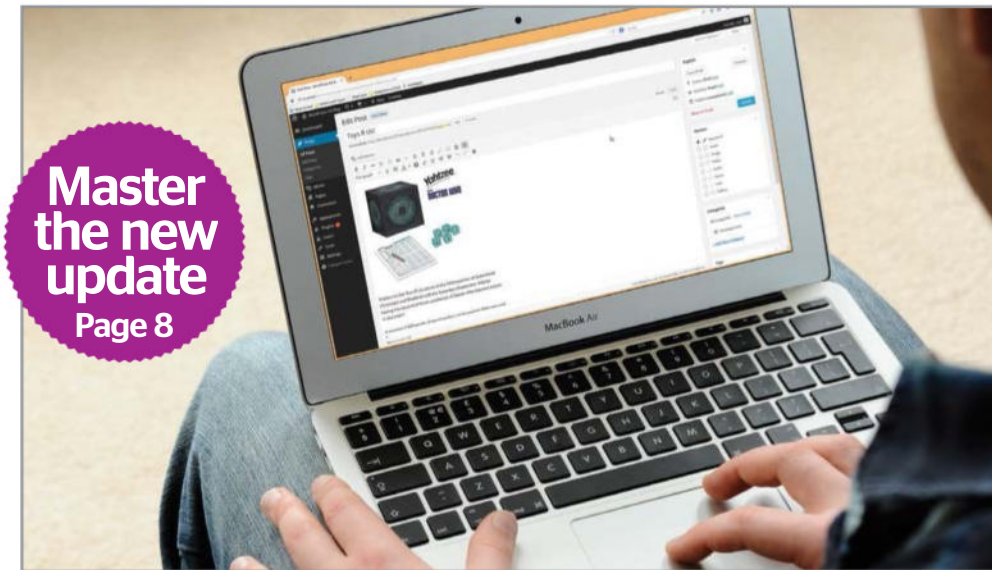
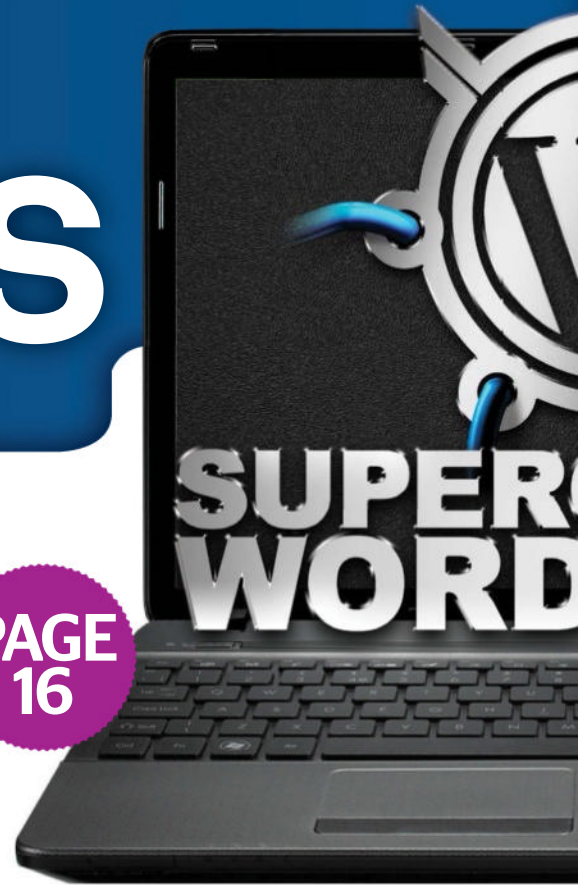


ip
IMAGINE
PUBLISHING

Contents

Everything you need to become a WordPress master and expand the functionality of your blog

PAGE 16



Master the new update
Page 8



PAGE 82

GETTING STARTED

- 24** The Settings
- 30** Use widgets in WordPress
- 31** Get to grips with plugins
- 32** Manage WordPress Comments
- 34** Posting WordPress content
- 36** Mastering the Media Library
- 38** Getting hosted with WP
- 42** Set up a host
- 44** Manage your different domains

- 46** Control user profiles
- 48** Back up your WP blog
- 50** Secure your WP site

THEMES

- 56** The 20 best WordPress themes
- 66** Create your own theme
- 74** Build a responsive WordPress theme
- 78** Customise a WP theme

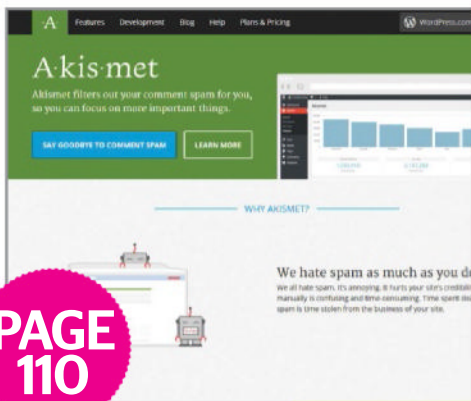
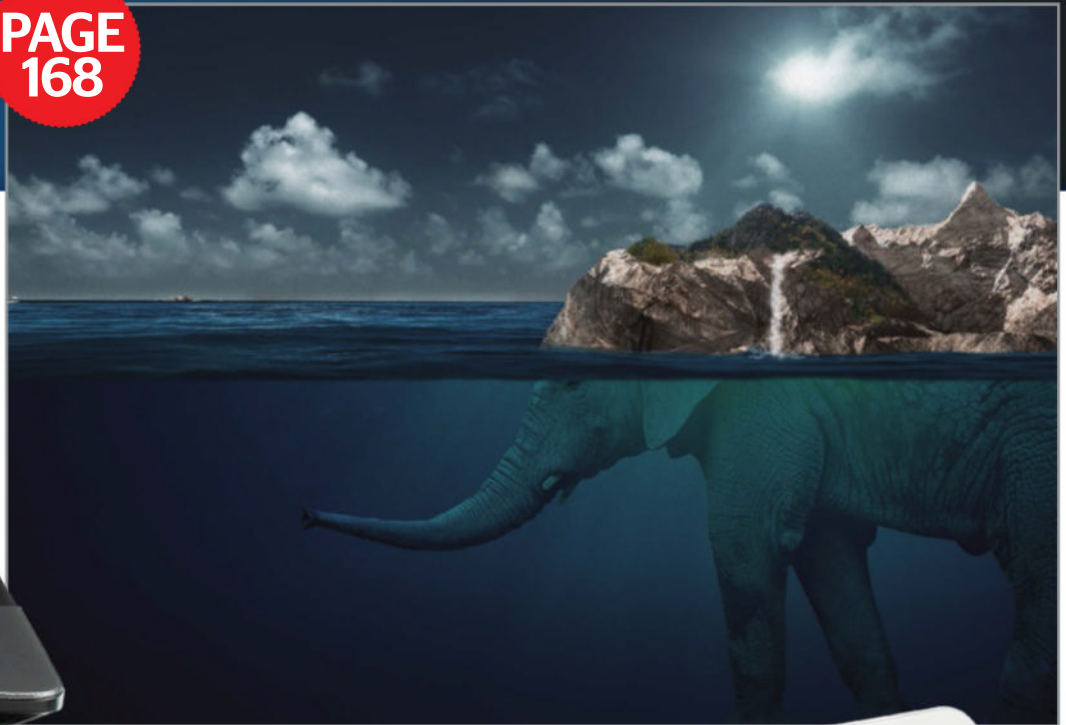
- 82** Convert a static site with a child theme
- 86** Create a mobile-friendly site
- 90** Transform HTML to WP

PLUGINS

- 100** Pro guide to plugins
- 106** Edit widgets and plugins
- 110** Protect your blog from spam
- 114** Increase site visits with SEO
- 118** Add a social author box



**PAGE
168**



**PAGE
110**

- 120** Build a WordPress slideshow
- 124** Schedule your blog posts

CUSTOMISATION

- 128** Add multiple moving backgrounds
- 130** Create an animated logo with CSS3
- 134** Blur and focus your text with Font Font
- 136** Build circular on-hover navigation
- 148** Create animated buttons with CSS3
- 142** Code a fixed image scroll-over effect

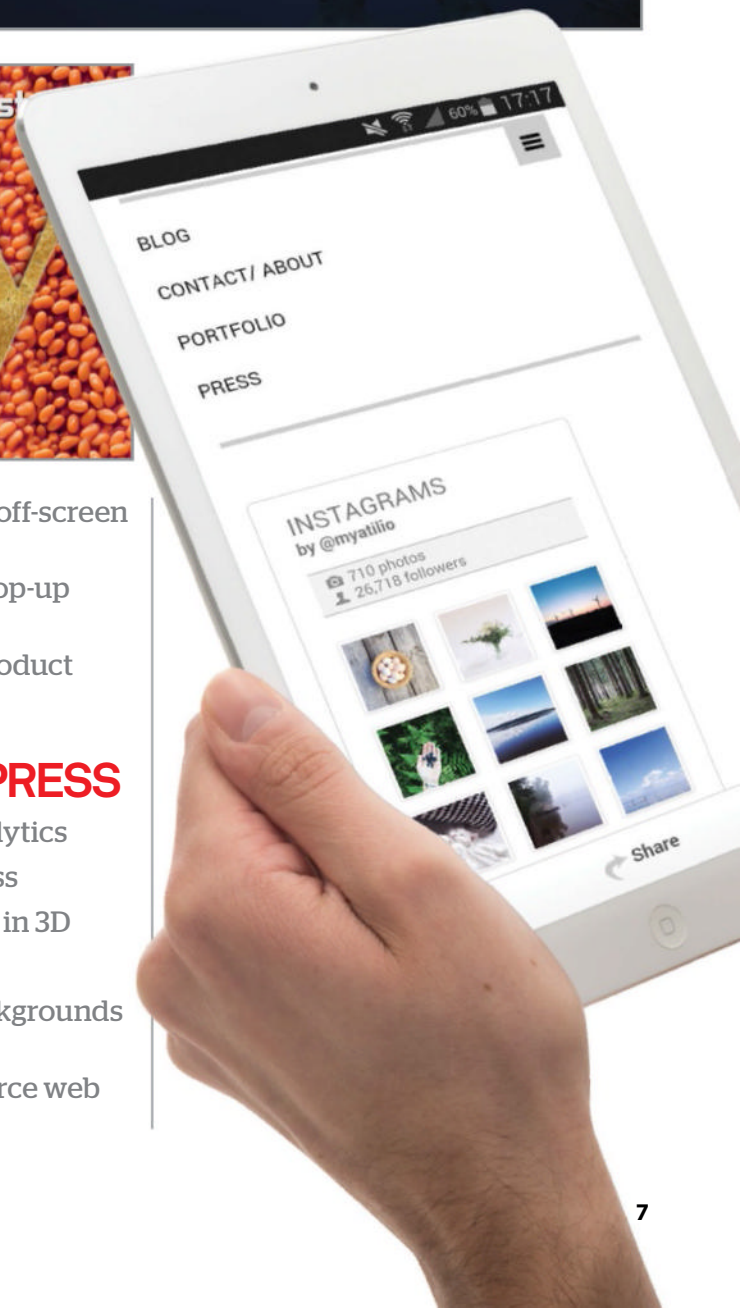


**PAGE
142**

- 144** Make an animated off-screen 3D menu
- 148** Master animated pop-up effects
- 150** Create a rotating product viewer

BEYOND WORDPRESS

- 154** Master Google Analytics
- 160** Speed up WordPress
- 164** Code an input form in 3D with CSS
- 168** Design layered backgrounds in Photoshop
- 172** Create an eCommerce web element with CSS3





Master the new update

WORDPRESS HAS UNDERGONE ONE OF ITS MOST SIGNIFICANT UPDATES, BUT IS IT REALLY ALL THAT DIFFERENT? WHAT'S REALLY NEW IN VERSION 4.3?



WORDPRESS 4.3 IS out now, and includes a selection of new features and security fixes to help bring your blog or website

right up to date.

A host of new features are available in WordPress 4.3, from improvements to the Theme Customizer view and Media Library interface to enhanced media handling in the Visual Posting view and a brand new interface for installing plugins. You'll also find some changes to the TinyMCE UI when creating a new post and it is now possible to select a language when you install WordPress for the first time.

These improvements all work together to deliver an updated, polished

WordPress experience. Enhancements to managing images and videos help us save time with previews, while browsing for new plugins has become a far better experience, allowing you to see small previews in advance.

In the background, various security fixes have been implemented, ensuring that your blog, your posts and any user data such as email addresses is protected against online intruders.

It is important to make sure your blog is up to date. This means reviewing plugins regularly as well as making a backup before you upgrade. If you've been holding off on recent updates, you shouldn't miss the most recent iteration of WordPress version 4.3.





Master the new update

Get to know the Dashboard

A NEW LOOK TELLS YOU EVERYTHING YOU NEED TO KNOW WHEN YOU LOGIN TO WORDPRESS

AT FIRST GLANCE, the Dashboard may not seem all that different in WordPress v.4, but on closer inspection you should spot the Welcome panel, where a collection of shortcuts can be found.

Ideal for newcomers to WordPress, the panel - which provides shortcuts for adding widgets, installing a new theme, writing a new post and adding an About page, as well as managing widgets and menus, turning comments on and off and more - can be dismissed if you're a more experienced user.

Elsewhere on the Dashboard, the 'At a Glance' panel, your blog's comments Activity, the Quick Draft box and the WordPress News (useful for spotting when new updates are imminent!) are also available, and are as customisable as they were before, you are able to drag and drop for your own liking. You can use the Screen

Options to determine which boxes appear and which remain hidden (see page 15).

Further items will be added to the Dashboard as you install plugins. Several prominent apps add important "at a glance"-style information to the Dashboard, such as Jetpack's visitor stats plugin.

Further items will be added to the Dashboard as you install plugins

The image shows a screenshot of the WordPress 4.0 Dashboard with several callout boxes explaining key features:

- Updates:** Update alerts will help you to keep your blog secure and protected against online threats as well improve functionality.
- Customize Your Site:** Use the site customizer to get a preview of how your blog will look with a new background colour or with widgets added.
- Welcome panel:** The Welcome panel introduces you to WordPress v.4. This is useful whether you're new to the software or an experienced user.
- Quick Draft:** Employ the Quick Draft panel to add new blog posts in a stripped-down form, without any pressure to publish.
- Screen options:** Use the screen options to tailor each screen in WordPress to your particular workflow requirements.
- Plugins:** Adding new Plugins has been revised in WordPress v.4, with a brand new user interface that improves the experience.
- At a Glance:** The At a Glance panel gives you all of the information you need about your blog.
- Rearrange panels:** Dashboard panels can be rearranged as needed, allowing you to prioritise the information you need.
- Welcome panel:** Once you're familiar with the Dashboard, maximise space by closing the Welcome to WordPress panel.
- News panel:** The WordPress News panel keeps you up to date with new and upcoming versions of the blogging software.

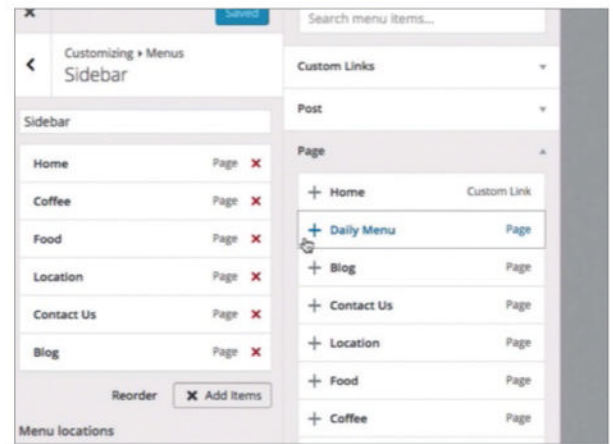
Get WordPress 4.3

UPGRADE TO WORDPRESS 4.3 FOR ALL THE LATEST FEATURES

ONE OF THE greatest aspects of WordPress is its much-admired easy installation, and the latest version is no different. If your blog is already running WordPress, ensure your database is backed up, then sign into the Dashboard, find the notification informing you that WordPress 4.3 is available and click the link to begin the upgrade process.

The latest incarnation of WordPress includes all the previous features in v.4, but before checking them out check your current plugins and themes. This is to ensure that they are compatible with the latest version of WordPress just installed. Modify, update and change accordingly.

So, what does the latest version have to offer? The big three are menus in Customizer, formatting shortcuts and site icons. Customizer allows users to quickly modify, update and live-preview menus, while the formatting options mean no need to head into the code or select text and choose an option, just add the right characters. Finally, add site icons to display in the Address Bar.



 After the update completes, you'll be presented with the new Dashboard page 

Blogging made easier

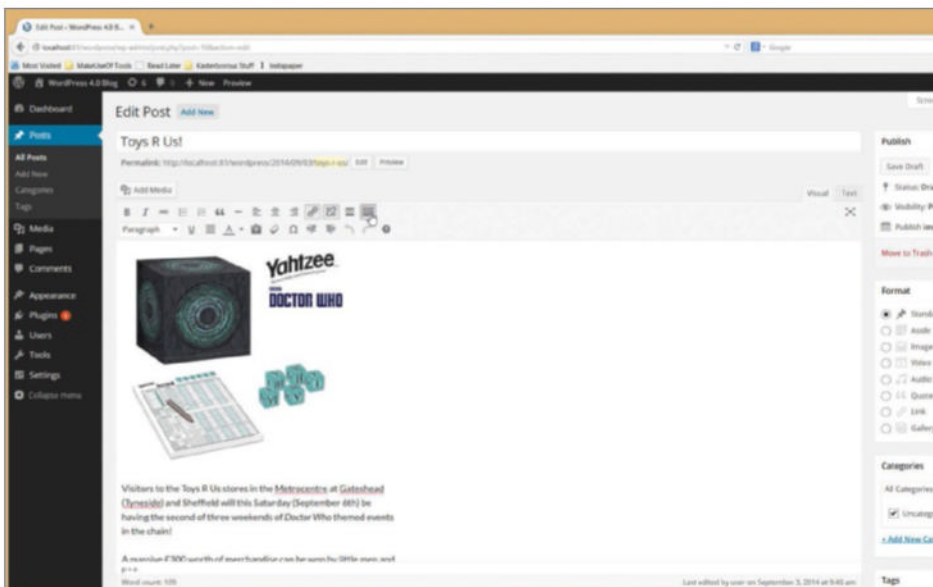
WORDPRESS V.4 HAS IMPROVED TOOLS FOR AUTHORIZING NEW ARTICLES

IMPROVEMENTS TO THE way in which you compose posts in WordPress v.4 can be a benefit to new bloggers and those using WordPress as the publishing system for their top-rated, busy website.

On the face of it, there are few differences with the previous version of WordPress, but these improvements have been gradual over the past couple of years, and as such are more secure and stable here.

In the Add New Post screen you'll still find the title box, the option to edit the Permalink (a vital tool in your SEO strategy) and to add images using the Add Media button. You may also prefer to view all of the available buttons in the TinyMCE text editor, possible using Toolbar Toggle.

A notable recent addition to WordPress is the Format toolbar, which can be used to create post types such as standard, images-focused, video posts, galleries and more. You'll find these work best when supported by your blog theme.



<above> Customising the look and feel of your blog posts has never been easier

Creating posts



01: Use full page editing

Use the Distraction Free Writing button to take the WordPress post editor box full-screen, and enjoy a completely new way of blogging.



02: Format your posts

Use post formats to style the published article appropriately - for instance, a video post might have the clip at the top of the page.



03: Visual Posting

The Visual Editor now gives you a better idea of how a blog post will appear when published, with accuracy determined by the active theme.

Master the new update

Revised media library

CHANGES TO THE WORDPRESS MEDIA LIBRARY MAKE CHOOSING IMAGES SIMPLER

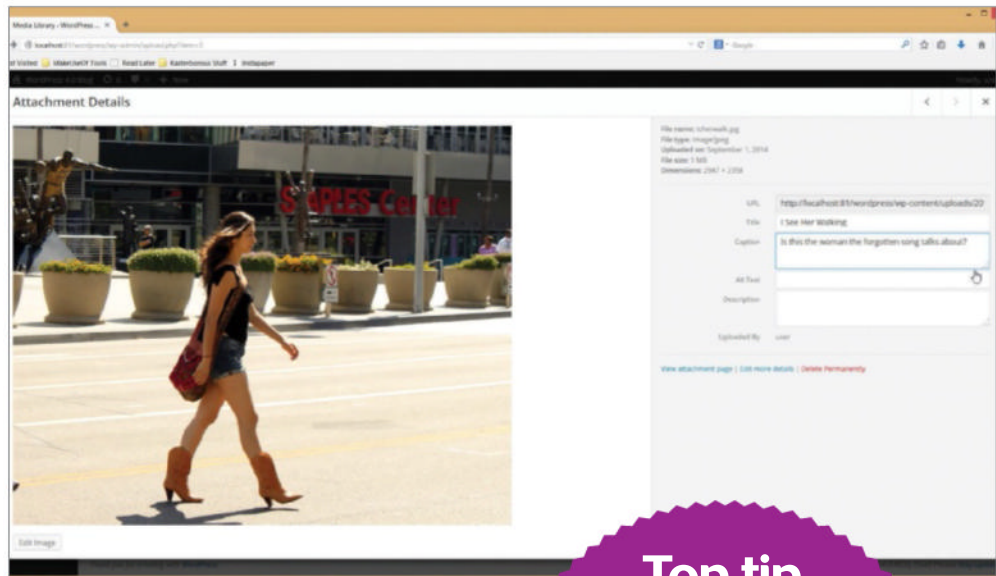
ONE KEY ADDITION to WordPress v.4 is an improvement to the Media Library. It is now possible to view a larger-resolution version of an uploaded image and make the necessary changes with ease.

Improvements in how your images are handled in the Edit screen (Media>Library>{Select your image}>Edit Image) meanwhile allow you to make and save edits without worrying whether or not the changes you make will be applied.

Although it isn't advisable to edit images on the server of a busy website, sometimes it just cannot be avoided (we would advise that image editing usually takes place on your computer or tablet).

You can also add a new title for the image, set a caption to be displayed when it is embedded in a post as well as display alt text when the image doesn't load. A description is also useful!

Whether you're editing images or words you can cycle between attachments uploaded by using the arrows in the top-right corner of the Attachment Details view.



Top tip
Intelligent resizing rearranges the left and right menus to fit above and below the editing box, enabling you to edit your blog on smaller devices.

🔗 The software will display the video preview, as it would on the sites it originates 🔗

Easily embed videos

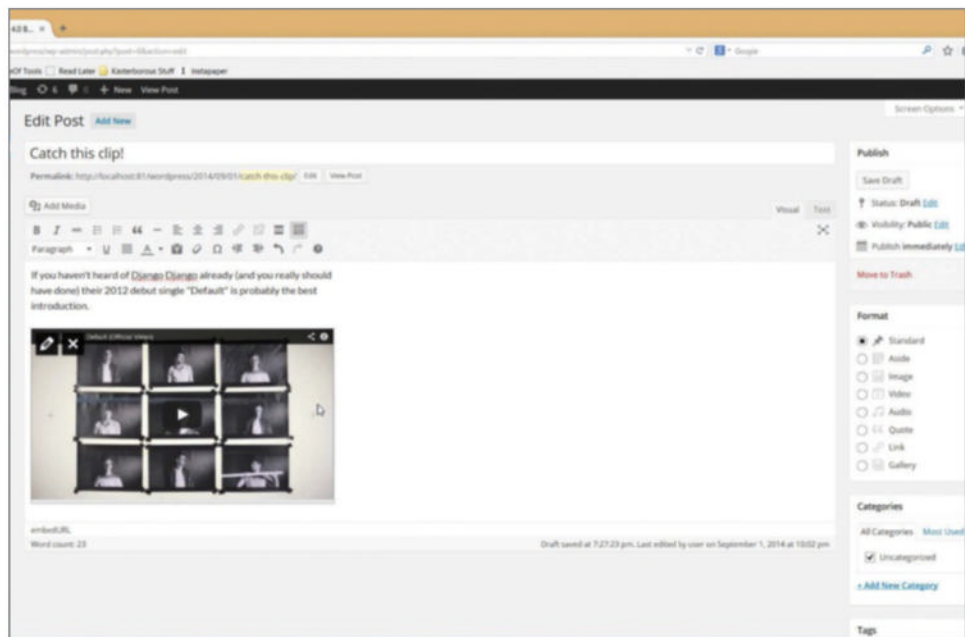
NOW THERE IS NO NEED TO PREVIEW EMBEDDED VIDEOS

ONE GREAT WAY to attract readers - and ensure they hang around - is to embed clips from video sharing services in your posts, and a new feature in WordPress v.4 is a refined method of viewing these video clips.

In the past, the video was represented by a big grey block, which provided a useful guide to the size of the embedded clip. After updating to WordPress v.4, the software will display the video preview, much as you would see it on the sites it originates (such as YouTube or WordPress.tv).

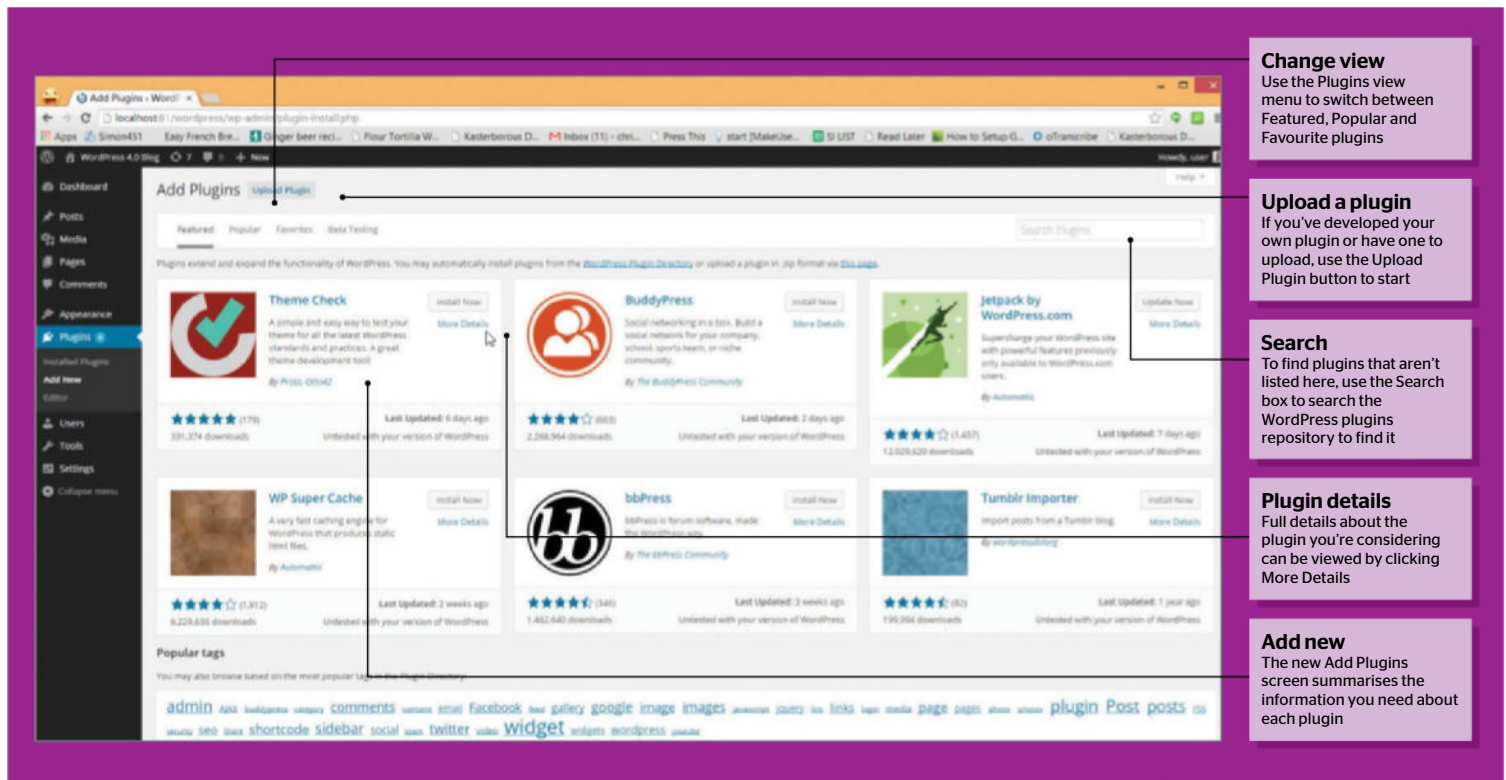
Better still, if you need to preview the video clip in the editor, you can, which will save time waiting for post previews to load.

Although editing options are limited, there are some choices available. If the video you embedded is the wrong one, you can click the pencil icon in the top left of the video preview to open the edit screen and input a different YouTube URL (WordPress requires only the URL rather than the embed code). Should you want to remove the video, all you need to do is click the X button to discard it.



Installing plugins in WordPress

USE THE NEW INSTALLER TOOL TO PREVIEW PLUGINS AND SAVE TIME



Change view
Use the Plugins view menu to switch between Featured, Popular and Favourite plugins

Upload a plugin
If you've developed your own plugin or have one to upload, use the Upload Plugin button to start

Search
To find plugins that aren't listed here, use the Search box to search the WordPress plugins repository to find it

Plugin details
Full details about the plugin you're considering can be viewed by clicking More Details

Add new
The new Add Plugins screen summarises the information you need about each plugin

Plugins made easy

NEW USER INTERFACE TAKES THE PAIN OUT OF PLUGIN INSTALLATION

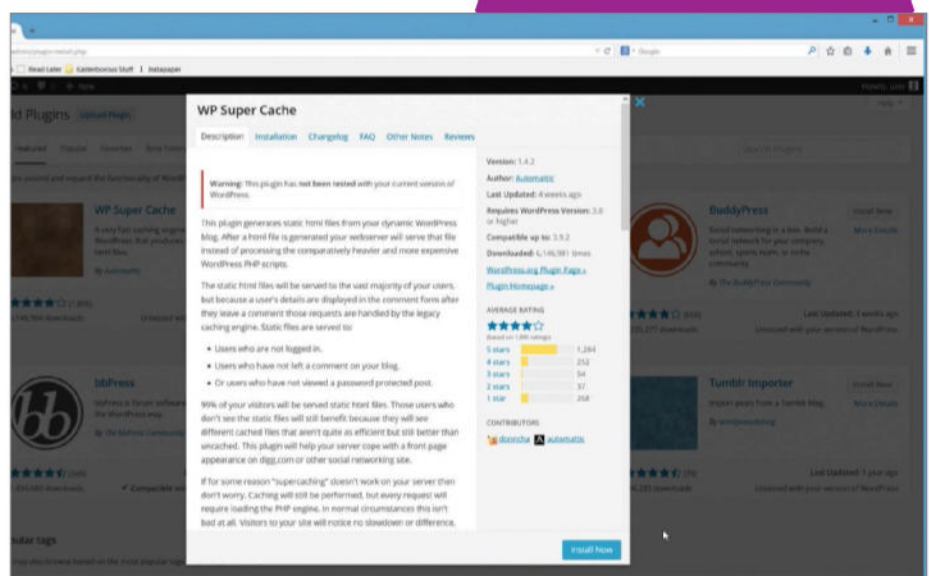
Top tip
When checking new plugins, always view the screenshots. If the developer believes in the plugin, they will take time to upload screenshots.

INSTALLING PLUGINS CAN be a stressful experience. After backing-up your database and files, you then need to ensure the plugin you're about to install (if you even find the one you're looking for) is the best option for your blog. You may run it on a test blog first to make sure that there are no inadvertent side-effects.

With WordPress v.4, the developers Automattic have introduced a new user interface that will alleviate some of the stress by presenting available plugins with a use preview that gives more information than was previously available.

Now when you open the Plugins>Add New screen, you're presented with a selection of Featured plugins, while a second tab displays Popular plugins. Descriptions, ratings and update information is provided, along with compatibility details. To find out more, click More Details, and when you're happy you can click Install Now to add the plugin to your blog.

A useful new feature for anyone running multiple blogs is Favourites, which means if you sign in through your blog, you can view any plugins that you marked as a favourite, making it easy to find in future.



WP Super Cache
Warning: This plugin has not been tested with your current version of WordPress.
This plugin generates static html files from your dynamic WordPress blog. After a html file is generated your webserver will serve that file instead of processing the comparatively heavier and more expensive WordPress PHP scripts.
The static html files will be served to the vast majority of your users, but because a user's details are displayed in the comment form after they leave a comment those requests are handled by the legacy caching engine. Static files are served to:
• Users who are not logged in.
• Users who have not left a comment on your blog.
• Or users who have not viewed a password protected post.
99% of your visitors will be served static html files. Those users who don't see the static files will still benefit because they will see different cached files that aren't quite as efficient but still better than uncached. This plugin will help your server cope with a front page appearance on digg.com or other social networking site.
If for some reason "super-caching" doesn't work on your server then don't worry. Caching will still be performed, but every request will require loading the PHP engine. In normal circumstances this isn't bad as all visitors to your site will notice no slowdown or difference.

AVERAGE RATING
★★★★☆
Based on 128 ratings
5 stars: 1,204
4 stars: 252
3 stars: 50
2 stars: 37
1 star: 254

Master the new update

Get the language right

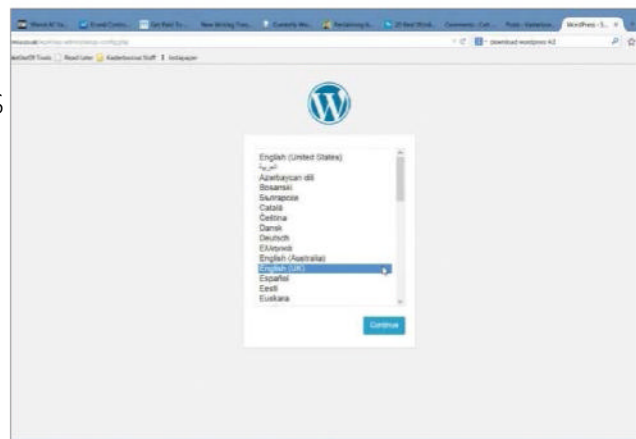
ADJUST YOUR LANGUAGE SETTINGS FOR YOUR CONTRIBUTORS

IF YOU RUN a blog that is targeted at a foreign country, and have a team of bloggers who speak the language of that region, then it might be a wise strategy to ensure that they can use WordPress effectively.

The best way to do this is to setup the blog software using their preferred language, which is now an option when you install WordPress v.4 onto a new server.

You're probably familiar with the WordPress installation screen, seen as you open your domain name in your browser after uploading the latest unzipped version of the blog software. Setting your preferred language is the first option here. If you're used to using automated installers in cPanel or similar server admin tools, the language option will also be found here.

Once the language is set, it cannot be changed without reinstalling, so ensure you have selected the right option.



You can now get a full preview in the Theme Customizer as you make changes

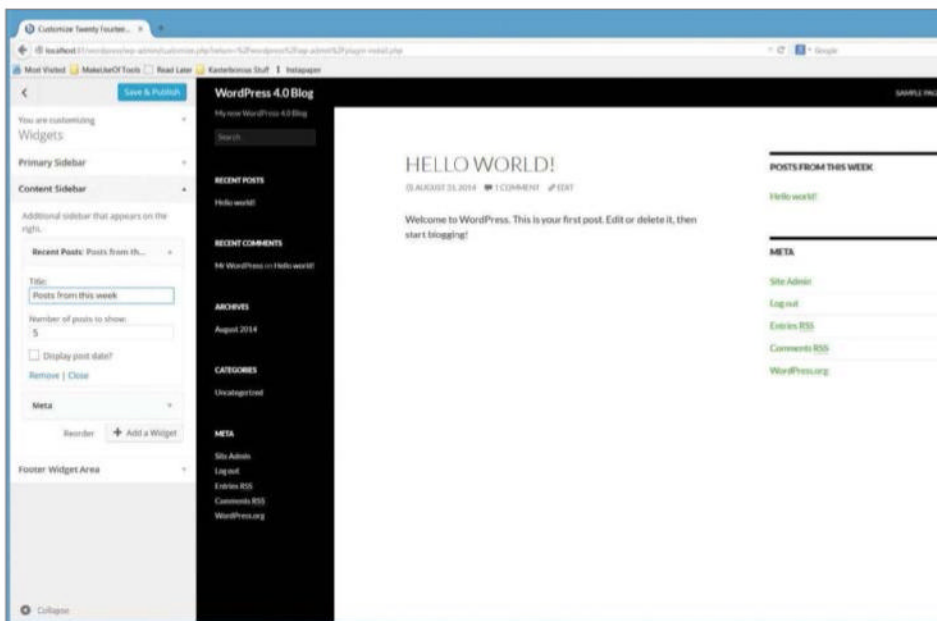
Previewing widgets

GET THE BEST PREVIEW OF YOUR THEME YET - WITH WIDGETS!

WORDPRESS V.4 FEATURES a few improvements to the Theme Customizer, which can be accessed in Appearance>Customize. Where once this was limited to changing colours and site title, it is now a far more powerful tool that can demonstrate the impact of any installed widgets on your chosen blog theme (as long as it is compatible with live widget previews) before you have installed it.

The advantage of this is clear. Whereupon once you would have added a widget, saved it and then quickly refreshed your blog - probably in a new browser tab - to see how it looked (and whether or not it broke your blog layout!) now you can get a full preview in the Theme Customizer before rolling out the changes to your readers.

We think that this is one of the most important new developments in WordPress v.4, and once you've tried it out we're certain you will agree!



above The Theme Customizer has become a more versatile tool that allows you to preview your widgets

Live widgets



01: Customize your blog

Access the Theme Customizer via Appearance>Customize. Click Widgets to view available widgets for your blog theme sidebars.



02: Adding a widget

Click Add a Widget to display the widgets you can use, and configure the one you want to use. Observe how it updates as confirm options.



03: Save your changes

Widgets can be reordered by clicking and dragging and like other changes will update in the preview. When you're happy click Save & Publish.

Adjust your Screen Options

CUSTOMISE YOUR WORDPRESS V.4 EXPERIENCE BY CONFIGURING SCREEN OPTIONS

HOW DO YOU use WordPress? For most, it is a case of sign in, scramble around looking for the link or feature you're looking for on the Dashboard or New Post page, write your post, and then logout. With the addition of more and more plugins over time, this process can become increasingly slow.

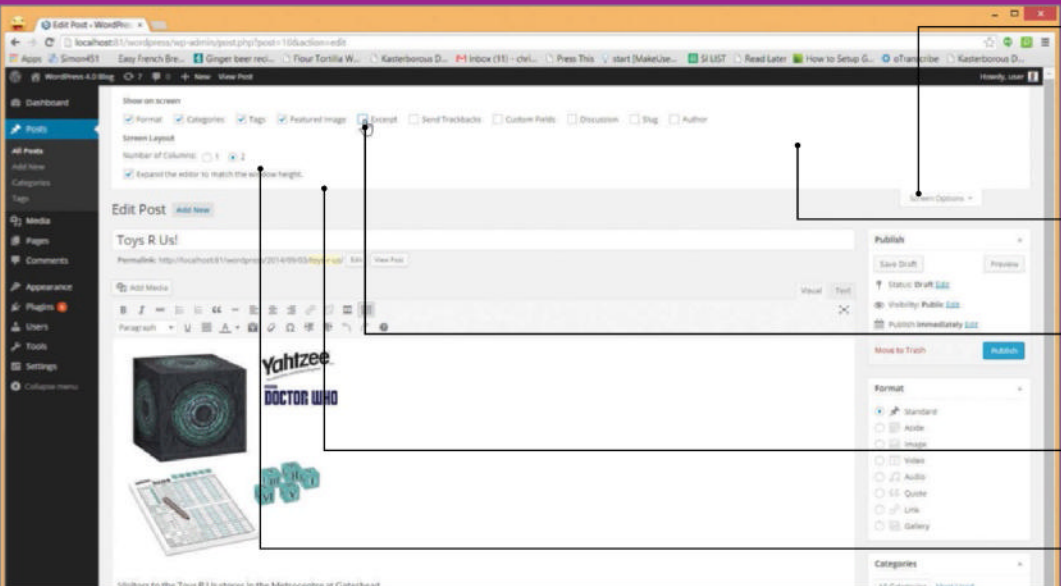
The reason for this is simple: you're not using WordPress right. Using the Screen Options button, available at the top of almost every admin screen in the

Dashboard, you can customise the blogging software's back-end to see only what you need.

For instance, you've installed several plugins to your WordPress v.4 blog, and the Dashboard is beginning to look a bit cluttered. All you need to do in this situation is open the Screen Options box at the top of the browser window, and disable items that you don't need to see, don't use, or don't need to access through the Dashboard. Click the Screen Options button when you're done.

Top tip

The Screen Options button is available across several admin screens in WordPress v.4, such as the Add New Post, All Posts and Dashboard. These options offer freedom to personalise the back-end so you only see the elements you need to edit.



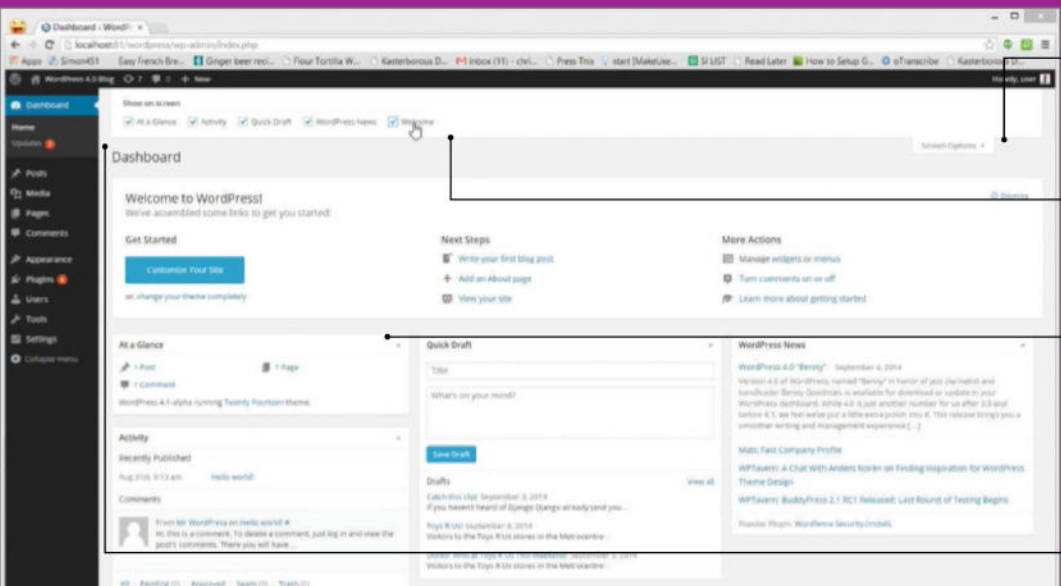
Open the Options
Click the Screen Options button to open the concealed window, where you can make any changes to the layout

The Options are flexible
You can activate as many or as few of the Screen Options settings as you like

Tick it to activate it
To enable a control, place a tick in the corresponding box. Removing the tick will hide the control

TinyMCE editor
Maximise the space you have to compose your posts by using this option to expand the TinyMCE editor's dimensions

Amount of columns
Too many columns? Use the Number of Columns option to restyle the layout



Click it to close it
Click the Screen Options button to close the window, and carrying on blogging!

Toggle tools
Even controls with their own tool for closing can be toggled off and on

Don't hide, minimise
Rather than disable panels completely, you might prefer to minimise them, expanding them only when you need to use them

Tailor menus
These controls are tailored to the Dashboard screen

Different screens
Different WordPress admin screens feature a different set of options

SUPERCHARGE WORDPRESS



UNLEASH THE FULL POTENTIAL OF WORDPRESS WITH CUSTOM POST TYPES, TAXONOMIES AND PLUGINS



WORDPRESS, THE WORLD'S largest CMS, is powerful right out of the box. For simpler sites you can probably make do with its posts and their categories and tags, and its pages for more static content. Whatever you might need beyond that can often be solved by a plugin.

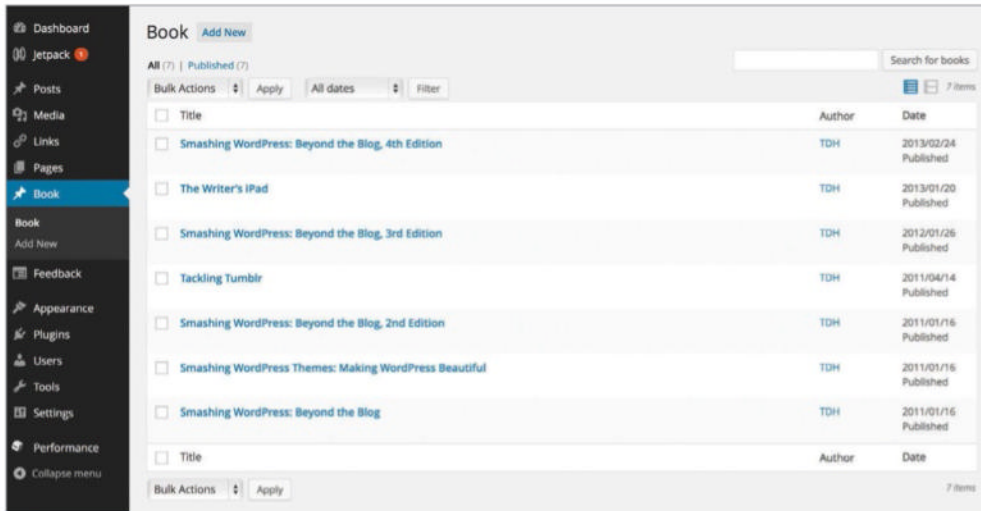
But if you want to take your WordPress site further and utilise the platform's true CMS capabilities, you will probably want custom post types and/or custom

taxonomies. These are two of the sharpest tools for WordPress developers when they are looking to build more complex sites where there are several different types of content and there is a need for more advanced levels of categorisation.

To understand what custom post types are, all you really need to know is that the posts and pages, which WordPress supports by default, are in fact two post types. You can recreate them with new names and

tweak them to be more tailored for your needs by creating your own custom post types. You can even unregister the standard posts and pages and replace them with custom post types that better fit your needs if you wish.

The same goes for custom taxonomies. The default categories and tags are in fact taxonomies - and you can create your own. This opens the door to a ton of possibilities, as you will soon see.



<above> The Book custom post type from <http://tdh.me>, as seen in the admin interface

Create custom post types

CUSTOM POST TYPES UNLOCK THE TRUE CMS POTENTIAL IN WORDPRESS – AND IN JUST A LITTLE WHILE, SO WILL YOU

What are they?

Custom post types are anything you want, basically. Technically, it's a little more complicated than that...

As we've already established, custom post types are the same as the default posts and pages that the standard WordPress install comes shipped with. Posts have their own set of rules, like being able to be associated with categories and tags. Pages, on the other hand, don't support categories and tags but they have other rules – like being capable of a hierarchical structure where one page is organised below another, and so on. Despite these differences, both posts and pages are post types. Those are not the only post types that WordPress comes with though; there are also attachments (media uploads), revision (post revisions) and `nav_menu_item` (used for media items). In total, WordPress ships with five post types.

When creating a custom post type, you are usually adding another one, although you can both alter and remove existing post types. This means that you could, if you wanted to, add a custom post type that shares all the features of the default WordPress page post type but includes support for categories as well. What a custom post type actually supports is something you decide. You can even hide a custom post type from view altogether if you want, not even showing it in the admin interface, if that's what you need.

The custom post types you create have the freedom of being exactly what you want, stored as a specific post type in the database – just like with your posts and pages.

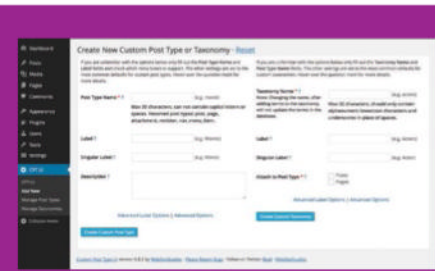
Why you should use them

What's the point of using custom post types and should you really extend beyond the default posts and pages at all?

The default posts and pages post types are more than enough for most sites. You've got your news sections and blogs and whatnot as posts, while your static information, the About section for example, is a page. Add menu functionality (again, a post type) and media uploads (attachment post type) and you've got everything most sites need.

When you want or need to step beyond that though, you'll want to create custom post types. This could be something as simple as a custom post type for your books, or the groundworks of a complicated site structure with so many types of content that you'll want to separate them from each other. It might even be for creating hidden search indexes (something we won't delve deeper into here as it's advanced stuff most people won't have to worry about) ticking in the background, or it's content meant to go into widgets for more flexibility. The possibilities are, as they say, endless.

You should use custom post types to simplify and organise things. However, that doesn't mean that it's appropriate to use them everywhere and all the time. It might be tempting to have one custom post type for News, another for Reports, and a third one for Interviews but this is generally a bad idea. Don't recreate sections that could just as well be categories (the section) and posts with custom post types, as that's making things more complicated than necessary for yourself.



<above> The Custom Post Type UI interface isn't pretty, but it gets the job done

Using a plugin

If you don't want to get down and dirty with the code, there are plugins that'll create custom post types for you

There is a WordPress plugin for just about everything now and creating custom post types isn't any different. The thing you'll have to remember is that these plugins create the post type for you, which means they register it with the parameters (name, permalink structure, support, and so forth) you've chosen, which lets you manage them in the admin interface. What the plugins won't do is give your theme the necessary functionality to display the custom post types. Granted, most themes will be able to display the posts using the default templates, but you probably had more in mind for your custom post types. The point is, you will still need to create the necessary theme template files for your custom post types – and custom taxonomies for that matter – if you want them to be any different to the theme's defaults.

One of the better plugins for creating custom post types is Custom Post Type UI. It's been around for a long time and has a good reputation – and it even supports creating custom taxonomies, despite its name. That means that you can create both custom post types and custom taxonomies with this one plugin, giving you a head start if you prefer to do as much as possible in the admin interface.

It could be as simple as a custom post type for your books, or the grounds of a complex site structure

Supercharge WordPress

Code Library

Custom post types

Obviously there are a lot of settings and alternatives when it comes to creating a custom post type, so in this code snippet we've kept things reasonable. The code works in a theme's functions.php, but should be in a compatibility plugin

```
// Register Custom Post Type//

001 function custom_post_type() {
002 $labels = array(
003     'name' => 'Movies',
004     'singular_name' => 'Movies',
005     'menu_name' => 'Movies',
006     'parent_item_colon' => 'Parent Movies:',
007     'all_items' => 'All Movies',
008     'view_item' => 'View Movie',
009     'add_new_item' => 'Add New Movie',
010     'add_new' => 'Add New',
011     'edit_item' => 'Edit Movie',
012     'update_item' => 'Update Movie',
013     'search_items' => 'Search Movies',
014     'not_found' => 'Not found',
015     'not_found_in_trash' => 'Not found in Trash',
016 );
017 $rewrite = array(
018     'slug' => 'movie',
019     'with_front' => true,
020     'pages' => true,
021     'feeds' => true,
022 );
023 $args = array(
024     'label' => 'movies',
025     'description' => 'Movies',
026     'labels' => $labels,
027     'supports' => array( 'title',
028     'editor', 'excerpt', 'author', 'thumbnail', ),
029     'taxonomies' => array
030     ( 'post_tag', 'actor' ),
031     'hierarchical' => false,
032     'public' => true,
033     'show_ui' => true,
034     'show_in_menu' => true,
035     'show_in_nav_menus' => true,
036     'show_in_admin_bar' => true,
037     'menu_position' => 5,
038     'menu_icon' => '',
039     'can_export' => true,
040     'has_archive' => true,
041     'exclude_from_search' => false,
042     'publicly_queryable' => true,
043     'rewrite' => $rewrite,
044     'capability_type' => 'page',
045 );
046 register_post_type( 'movies', $args );
047 }
```

All the code for creating a custom post type (or several) should go in a function. At the end we'll add that function to the init action with `add_action()`

The array for supports contains information about what sort of elements the post type should support. In this case it's the post title field, the editor, the excerpt, choosing an author, and featured images

All the details are collected in `$args`, including `$labels` and `$rewrite`, which you'll find in the `$args` array as well. These, along with the post type name, are passed to `register_post_type()`

```
// Hook into the 'init' action
add_action( 'init', 'custom_post_type', 0 );
```

Adding a separate selection in the admin interface might be more manageable than having an overload of categories

Where to use them

With the power of the custom post type unlocked, it's hard to imagine not using them everywhere, right?

Custom post types are great. So great in fact, that it's easy to start using them too much; while custom post types are great, they come with a few caveats. One of the first things you need to remember is that adding more options in the WordPress admin interface might not be a good thing. Less technical users will be daunted by more things to manage, if that's the overall feeling of making additions. On the other hand, adding a separate selection in the admin interface might be more manageable than having an overload of categories to consider when working with content. As always, there's a thin line as to what is reasonable and what's not.

Custom post types really shine on content that differs a lot from the traditional posts and pages. Product directories are an obvious choice, because here you'll not only want to separate the products (ie product post type posts) from the regular post flow of, say, a news section. It's also likely that your product posts will need more boxes and settings than most

Theme template files for custom post types

Custom post types will use your theme's template files if possible, just like any other post type. These are the ones you'll probably be most interested in:

Archive template: `archive-X.php`, where X is the name of the custom post type.

Single template: `single-X.php`, where X is the name of the custom post type.



<above> The purpose of the Book post type is to give the books their own part of the site, keeping them separate from posts and pages

other post types; you don't want to litter your posts and pages with boxes pertaining to size and shipping and weight and costs and whatever it else it is you need to describe and work with a product in such a site.

On <http://tdh.me>, there's a custom post type for books, for exactly the same reason as stated above. These are the times where custom post types really work: when you need a different set of content, whether it's in the interests of being user friendly in terms of the need for a lot of boxes and settings, or because the content just doesn't belong with the regular flows of posts.

Obviously there are so many other uses for custom post types as well. Sliders, if you have to have them, fit perfectly. Just use a post in a custom post type for each item in the slider, cut everything not needed for the slider posts' content, and you'll have something that's easy to manage for the users. Posts wouldn't do at all here because obviously you don't want slider posts to show up in search results, so that's another strength of custom post types that's worth remembering.

Don't forget mobile users

Remember that mobile apps aren't on par with the browser at all times

Something to remember about custom post types is that they might not work in the apps your users rely on. At the moment most mobile apps - for both iOS and Android - don't support custom post types at all, which means that the users are tied to the web browser when working with these things. Granted, the WordPress admin interface will work in most modern mobile web browsers, but the experience is not as slick as the apps at this time. It's important to be aware of these things because if you've built a news site and want to snap and post a breaking news item really quickly, being able to use an app to do this might be the upper hand you need.

Not surprisingly, this is also an issue for custom taxonomies, so do your homework first if mobile apps are important to the workflow.

Create a custom taxonomy

SOMETIMES THE DEFAULT CATEGORIES AND TAGS WON'T CUT IT - THIS IS WHERE CUSTOM TAXONOMIES COME IN

What are they?

Understanding what a taxonomy actually is will help you put your custom taxonomies to better use

WordPress ships with a set of post types and also has two taxonomies per default. Both categories and tags are taxonomies, albeit working a bit differently. You can see that when using the admin interface. Categories are a set of checkboxes where you choose one or several, and they can also be hierarchical, which is to say that a category can have another category as its parent. Tags aren't like that at all; they're not hierarchical and therefore have no relationship to each other. In the admin interface that means that the tag box is free text, which often means that the tags will be a little bit more chaotic and less ordered than the categories due to user behaviour.

A taxonomy has terms associated to it. This means that a category, in the category taxonomy, is a term. A tag in the tag taxonomy is also a term. When you create your own custom taxonomy, the items within it will also be terms.

There is actually a third taxonomy shipping with WordPress, being the Post Format taxonomy. This one has special rules, such as that it's not meant to be extended (but obviously you can do that), and you're only allowed to choose one of the defined terms (Quote, Image, Standard, and so forth) for your post. You shouldn't worry (or possibly mess with) the Post Format taxonomy, but it's good to know what the feature actually is.

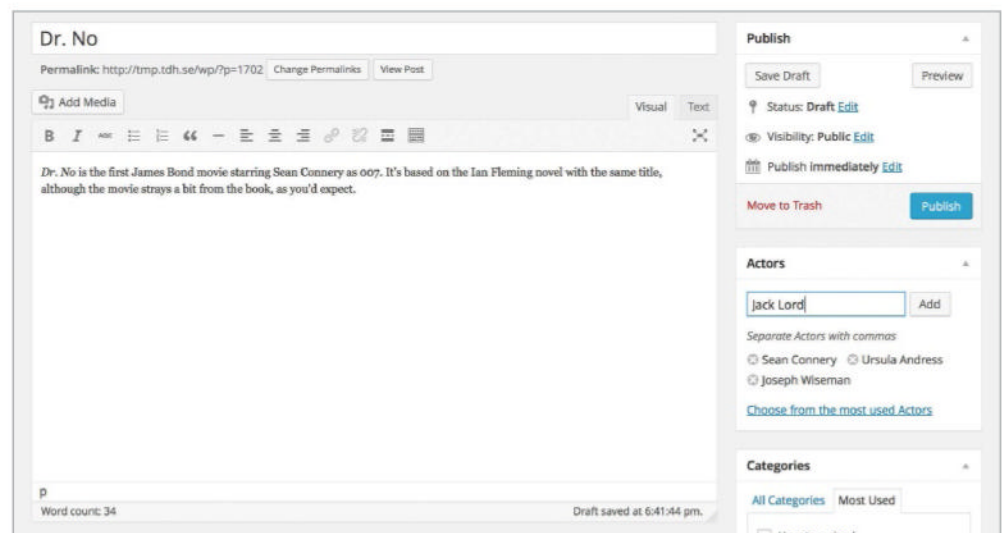
Why you should use them

Taxonomies bring order to the WordPress galaxy of posts, giving you even more tools to tie your posts together

Categories are among the most powerful tools in the WordPress arsenal. Most sites can manage with just posts and pages (and attachments, obviously) and categories. With categories, you can easily create sections on your site, consisting of a flow of posts. That's what taxonomies do best: they bring order to your content.

Creating additional taxonomies gives you additional order, at least if you think things through and don't overdo it with a taxonomy for everything. That said, some content might need some sort of sorting, be it category- or tag-like, but it shouldn't be mixed with the standard posts. That's when you create a custom taxonomy and that's where they shine. There are obviously other times when custom taxonomies hold their own as well, such as plugins registering hidden taxonomy terms and such, but that's a bit out of the scope of this article.

Much like categories and tags, custom taxonomies can have their own archives. This is really useful, because it means that you're not just limited to sorting content by itself, but you can also make the archives stand out if you like. In fact, much like categories can be used to create sections on a site, you could do the same with your custom taxonomies, bringing further order to the user experience as well as the administrative one.



<above> Custom taxonomies look and behave like categories and tags, blending well with the WordPress interface

Supercharge WordPress

Code Library Custom taxonomy

```
// Register Custom Taxonomy
function custom_taxonomy() {

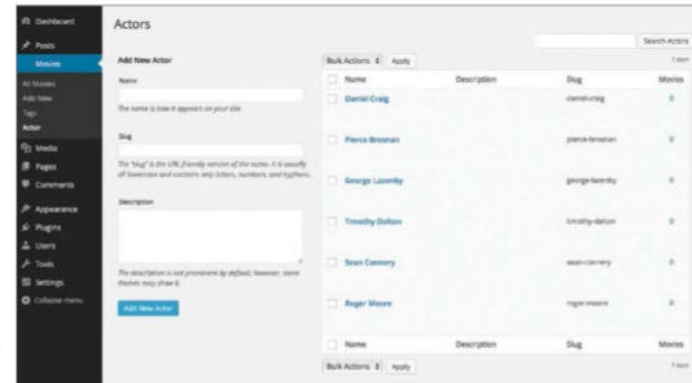
001 $labels = array(
002     'name' => 'Actors',
003     'singular_name' => 'Actor',
004     'menu_name' => 'Actor',
005     'all_items' => 'All Actors',
006     'parent_item' => 'Parent Actor',
007     'parent_item_colon' => 'Parten Actor:',
008     'new_item_name' => 'New Actor',
009     'add_new_item' => 'Add New Actor',
010     'edit_item' => 'Edit Actor',
011     'update_item' => 'Update Actor',
012     'separate_items_with_commas' => 'Separate Actors
with commas',
013     'search_items' => 'Search Actors',
014     'add_or_remove_items' => 'Add or remove
Actors',
015     'choose_from_most_used' => 'Choose from the
most used Actors',
016     'not_found' => 'Not Found',
017 );
018 $rewrite = array(
019     'slug' => 'actor',
020     'with_front' => true,
021     'hierarchical' => false,
022 );
023 $args = array(
024     'labels' => $labels,
025     'hierarchical' => false,
026     'public' => true,
027     'show_ui' => true,
028     'show_admin_column' => true,
029     'show_in_nav_menus' => true,
030     'show_tagcloud' => true,
031     'rewrite' => $rewrite,
032 );
033 register_taxonomy( 'actor', array( 'post' ), $args );
034 }

// Hook into the 'init' action
add_action( 'init', 'custom_taxonomy', 0 );
```

Custom taxonomies are created in a function that is added to the init action with `add_action()` in the end

Whether a custom taxonomy is hierarchical or not decides if it's like categories (value set to true) or like tags (value set to false)

`register_taxonomy()` registers the actual custom taxonomy, with its name (actor), what post types it should work on (posts) and with what rules (passed through \$args)



<above> Showing the Actor taxonomy with some terms

Where to use them

Fine-grained control of your content through custom taxonomies is nice – but where do they really shine?

There are a lot of great examples of places where custom taxonomies can help. Much like the category-powered sections of a simple site, you can add more ways to tie content together. The first thing you need to remember is that you decide which post types – be it default ones shipped with WordPress or custom post types you've created – support the custom taxonomies that you create. This means that you can add in additional taxonomies where you want to, making them relevant across the post types. The same goes for the default categories and tags.

Custom taxonomies are often used to create database-like functionality. One of the better examples is the movie analog, where you use custom post types for things like genre, year of release and actors. This would mean that the genre custom taxonomy would be hierarchical, acting much like the standard categories do. The year of release and actor custom taxonomies would be non-hierarchical, which means they'll behave like the standard tags do. The purpose of storing this sort of data in a custom taxonomy, rather than a post meta box (custom field), is because of the archives you'll get. Let's say for example that you want all the 'Action' movies, 'Action' being a term in the genre taxonomy. Well, just like with any term, you can get an archive easily enough. The same goes for all the movies released in 1987 (the term '1987' within the year of release taxonomy), or the ones where Roger Moore is an actor (the term 'Roger Moore' in the actors taxonomy).

The way you can get archives – and therefore useful sections on your site – from taxonomies makes them a very useful tool. Obviously it's also data you can query should you need to; for example, by creating a page template detailing all the James Bond movies by actor. You'd have to write a separate WordPress query, using `WP_Query`, for that page template, but since the data is there as terms in various taxonomies it's not such a big step.

Template files for custom taxonomies

If you want additional control over your custom taxonomies, you'll need to add the appropriate template files to your theme, otherwise they'll just revert to the default ones. These are the template files that you'll probably want to consider adding:

TAXONOMY ARCHIVE FOR A SPECIFIC TAXONOMY: TAXONOMY-X-Y.PHP, WHERE X IS THE NAME OF THE CUSTOM TAXONOMY, AND Y IS THE TERM SLUG.

TAXONOMY ARCHIVE: TAXONOMY-X.PHP, WHERE X IS THE NAME OF THE CUSTOM TAXONOMY.

GENERAL TAXONOMY ARCHIVE: TAXONOMY.PHP, WHICH WILL BE USED FOR ALL TAXONOMIES.

Needless to say there are a lot of things that can be done with custom taxonomies, much like there are a lot of things being done with the default tags and categories. The big difference is that here you have full control to decide what rules there are for the taxonomies that you create.

Term descriptions are useful

Describe your terms for more useful archive pages

Terms, whether they're residing in the default categories or tags taxonomies, or in a custom taxonomy created by you, have a description field. Most themes forget about this, which is a shame since it's the perfect spot to add a little more reference as to what the archive page the user is viewing is actually all about. The description is managed on your term page in the WordPress admin interface, where you can also change the name and the permalink of the description. Don't forget this very useful tool when developing sites, with or without custom taxonomies.



<above> Adding some information about Roger Moore, a term in the Actor taxonomy

Getting weird 404s?

When working with custom post types and custom taxonomies, sometimes you'll get completely unexpected 404 errors when trying to view archives and such. This is usually WordPress permalinks going wonky, so just go to Settings>Permalinks and update permalinks (you don't have to change anything) and things should be working fine again - assuming you did everything right in the first place, of course!

Compatibility plugins

NOW THAT YOU'VE CREATED YOUR CUSTOM POST TYPES AND TAXONOMIES, LET'S ENSURE THAT THEY'RE PORTABLE

If you've ever read about custom post types and custom taxonomies before in tutorials and blog posts, you'll notice that the most common instruction is to put the necessary code in your theme's 'functions.php' file. That works, technically, but it's a bad idea.

Think about it: sometimes you change your theme, which means you'll get a new functions.php file. That in turn means that you'll have to move your custom post type and custom taxonomy code to the new functions.php, manually copying and pasting. This isn't a big thing obviously, but it's another thing to remember - and a bit of a nuisance.

The better way to do this is using a compatibility plugin, which really is a plugin like any other, but it contains the code you need for things like custom post types and custom taxonomies. These are features and additions to your WordPress site that you'll want to have access to no matter what theme you're using, so the code for them should be portable between themes. By sticking the code in a plugin, it'll always be there and the only related things you'll need in your theme will be things that belong there, like the template files for custom post type single posts, or custom taxonomy archives, and so forth.

You create a compatibility plugin much the same way as you do any other plugin. If you're unfamiliar with this, it's straightforward enough to pick up. All you need is one file, let's call it 'compatibility.php', with the necessary plugin header telling WordPress that it's a plugin, in a similar way to how the header in a theme's 'style.css' does for themes.

```
001 <?php
002 /*
003 Plugin Name: Compatibility Plugin
004 Plugin URI: http://tdh.me
005 Description: These functions
```

```
should not be in the theme
functions.php file, so they are
here instead.
006 Version: 1.0
007 Author: Thord Daniel Hedengren
008 Author URI: http://tdh.me
009 License: GPL3
010 */
// Put your custom post type and custom
taxonomy functions here!
011 ?>
```

That's it, a plugin header with some basic information for WordPress. Having done that, all you then need to do is put the necessary functions, as described previously, in the plugin file. Upload to wp-content/plugins/ and activate the plugin - and there you have it!

Plugins are versatile

Compatibility plugins can be useful for many things

It's not only custom post type and custom taxonomy code that belongs in a compatibility plugin - there are plenty of other features that do as well. The general rule is that everything that needs to work if you change your theme should be placed in a compatibility plugin.

One of the most common mistakes are themes with shortcode functionality, perhaps for including fancy pull quotes or product listings, or whatever really. Shortcodes are great, but if the necessary code containing their functionality is missing, then they're just text in brackets that'll show up within your content. You can easily avoid this by putting the necessary code for the shortcode functionality in your compatibility plugin, much like you do with custom post types and custom taxonomies.

Useful plugins

Post Type Switcher

wordpress.org/plugins/post-type-switcher

Post Type Switcher is an excellent plugin that comes in handy when you need to reorganise your posts a bit. Basically, the plugin lets you move one post from one post type to another, which means that you can use Post Type Switcher to transform posts to pages and vice versa. It also means that any registered post type is available.

THERE ARE OBVIOUSLY A LOT OF PLUGINS RELATED TO CUSTOM POST TYPES AND CUSTOM TAXONOMIES IN SOME FASHION OR ANOTHER - HERE ARE SOME TOP PICKS THAT MIGHT HELP YOU DECIDE WHICH TO USE

Term Management Tools

wordpress.org/plugins/term-management-tools

Term Management Tools is one of those plugins that is just plain awesome. It not only lets you change terms between taxonomies, letting you make categories from your tags for example, but it also has the ability to merge several terms into one. It's very useful and has the added bonus of being completely compatible with custom taxonomies.

Types - Custom Fields and Custom Post Types Management

bit.ly/1h4lLt0

Types is one of those everything-and-the-kitchen-sink plugins you should be wary about using. This one's pretty good though; it gives you the tools to manage custom post types, taxonomies and fields. There are some premium features you can unlock, but the plugin works just fine without paying anything.