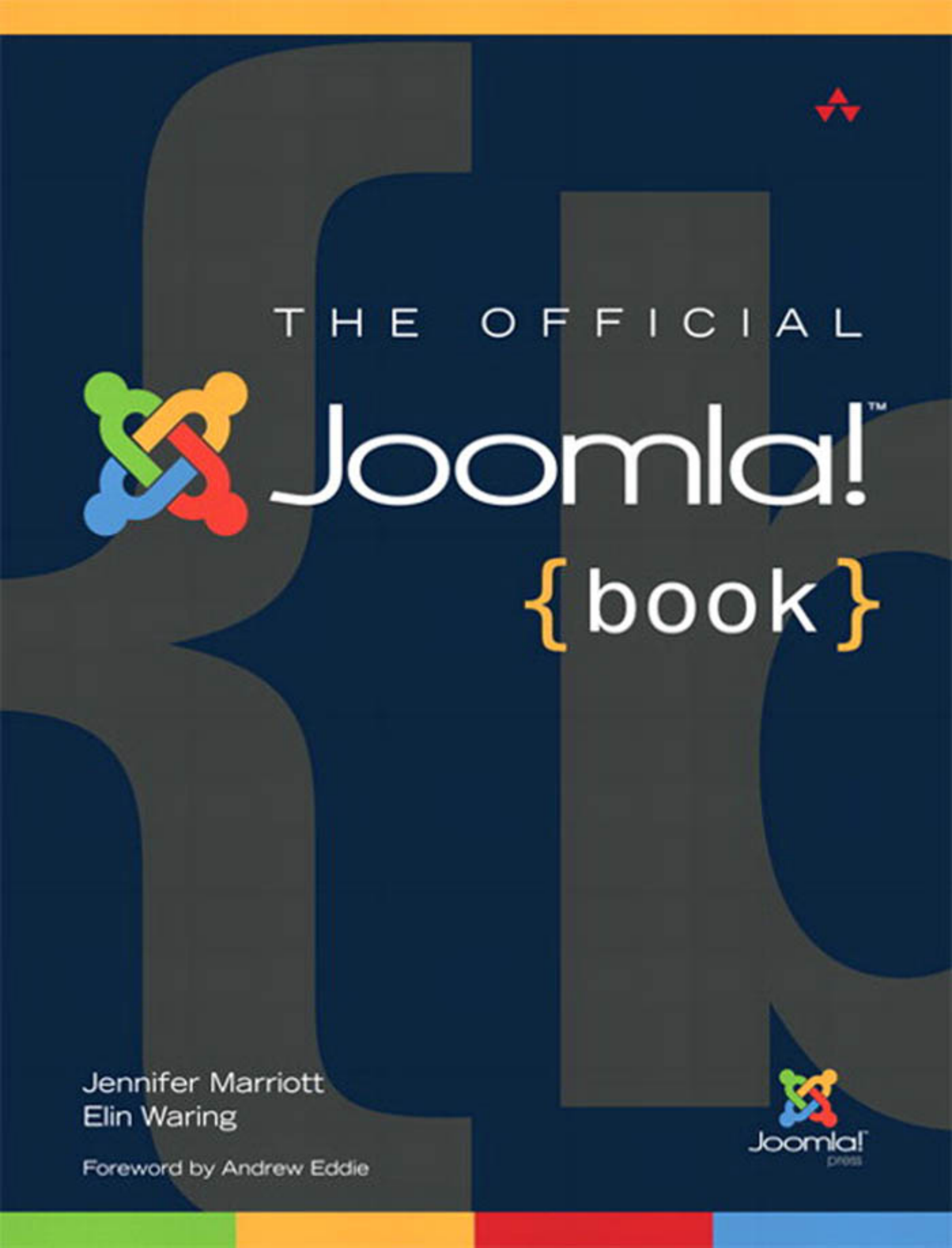
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Foreword by Andrew Eddie
Joomla!
press

The Official Joomla!™ Book

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The Official Joomla!™ Book

Jennifer Marriott
Elin Waring

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To my husband, Pete

—Jennifer

To Tom, Bobby, and Linnea

—Elin

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Foreword

Joomla! is steeped in a rich and sometimes controversial history. During its tumultuous start in August of 2005, no one could have imagined how far this little project would stretch in terms of reach, nor could anyone have imagined how much it would grow in terms of depth of participation and resources available to the community. I still vividly remember the day I published the now famous "Open Letter to the Community" that you find in Chapter 1 of this book. Those were uncertain times for the 19 founders and hundred or so members of the forum team to leave comfortable surroundings and start over with nothing but courage and raw determination.

Today, I am writing this foreword having just attended a 200-person-strong local conference in San Jose, California, and my compatriot across the table is off to Italy to address 700 at a similar event. These are but two of dozens of such events held all around the world each year, on every continent (except Antarctica of course, but maybe one day), to celebrate as a community this amazing thing called Joomla! The right words are hard to find, but one is certainly appropriate: Wow!

Joomla!'s mission is "to provide a flexible platform for digital publishing and collaboration." To that end, and at the time of this writing, we have 64 official languages; hundreds of professional service providers; over six-thousand (that we know about) Joomla! extensions; thousands of template designs to choose from; and tens of millions of Web sites deployed all around the world. Joomla! is arguably the easiest software program of its type—both to use and to master. It has been designed both for the most basic user and for the master artisan who wants to take a site beyond the normal limits of the core download. Joomla! carries a legacy of a user interface with pleasing eye-candy and a wide choice of the most beautiful templates available for any site-building system in the world. Particularly close to my heart is our passion for continuing to improve the way in which we deliver Joomla! to more and more people in their own languages.

All together by name and all together by nature, Joomla! (meaning "all together" in Swahili) sought from the very beginning to ensure it would be free for the entire community at its founding and into the future. It was set up deliberately to ensure that no one person could ever "own" Joomla!, a detail that gives Open Source Matters—the Joomla! nonprofit—the freedom to provide stewardship in the best interests of the project rather than a parent company's bottom line. Combined with the two main project leadership teams for software production and community management, Joomla! as a whole has one of the most progressive and mature leadership structures of any open source project.

Five years after its founding—and on the heels of both Microsoft and eBay becoming collaborators and contributors to the Joomla! core source code—we begin another phase

in our life journey as a project: the inception of Joomla! Press and the first (with extreme emphasis on "first") official Joomla! book. Joomla! is about allowing ordinary people to do extraordinary things, and that is exactly what the authors of this book do for its readers. So, without further ado, I present this book for your pleasure. It begins with how we began and takes you on a journey through which you can be empowered to reach the world.

—Andrew Eddie
Member of the Joomla! Production Leadership Team
October 2010

Joomla! Press Mission Statement

The mission of Joomla! Press is to enhance the Joomla! experience by providing useful, well-written, and engaging publications for all segments of the Joomla! Community from beginning users to framework developers. Titles in Joomla! Press are authored by leading experts and contributors in the community.

Preface

When planning what should be in a book about Joomla!, we thought hard about the process we go through when building Web sites and when helping others build sites. We decided that this book should be about building a Web site using Joomla! rather than how to use Joomla! to build a Web site. Even though you can make a Web site using Joomla! in a few hours (or less), most likely it won't be a great site, and it won't allow you take advantage of the power of Joomla! The focus should always be on how you envision your site, the goals of the site, and the audiences you want to reach rather than on the technology used to create it.

Fortunately, with its combination of power and ease of use, Joomla! lets you keep your focus on the big picture of your site and the small details of your content and not on mastering a complicated set of processes. This is why we start with a thorough discussion of things to think about *before* you start building your site.

We've also built a set of very simple sample sites that will give you a good idea of the initial process of thinking about and then building sites for various purposes. We hope that you'll follow along with the construction of those sites so that you understand the process that site developers use. If you do these tasks first, you will be ready to build your own site with confidence and a good plan.

In addition, we try to help you have a basic understanding of how Joomla! really works "under the hood" so that when you are ready to take advantage of the power that comes with its extensibility, you will have the knowledge to do that in the right way. We think that, like us, you will want to steadily increase the sophistication of your site and your knowledge and understanding of Joomla! So, we've written this book with the idea of giving you a strong foundation for the future of your site and other sites you may build in the future. Free and open source software is empowering, but you need to have solid knowledge of the fundamentals to take advantage of it.

We're passionate about Joomla!, and we hope that you will be, too. That's why we take time in this book to introduce you to the Joomla! project and the Joomla! community. We hope that you'll want to become an active participant in the Joomla! world. And we hope that you enjoy building your site so much that you end up building other sites for the friends, family members, organizations, or causes you care about.

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Acknowledgments

This book benefited greatly from the help of many people, named and unnamed. We thank them for their assistance.

We especially thank all the contributors to the Joomla! project who have worked so hard together to produce and support this amazing software. All of the people we interview in Chapter 12 have taught and inspired us day in and day out, many since the day the Joomla! was born, and we are lucky enough to consider them friends, too. Thanks to Andrew Eddie, Chris Davenport, Brad Baker, Wendy Robinson, Louis Landry, Ian MacLennan, Sam Moffatt, Mark Dexter, Ryan Ozimek, Vic Drover, and Gary Brooks. There are dozens of others whose knowledge we have built on including Anthony Ferrara, Michelle Bisson, Toni Marie Swats, James Vasile, Rob Schley, Dave Huelsmann, Lorenzo Garcia, Jean-Marie Simonet, Angie Radke, Andrea Tarr, Alan Langford, Leslie Hawthorn, and others.

We also thank all those participants in the Joomla! forums who answered our questions and asked us their own questions and contributors to the Joomla! documentation wiki, both of which taught us how to use Joomla! in more depth. The Joomla! Bug Squad has been a continuous source of inspiration.

Then there are the people who really made this book possible. Pete and Tom, Linnea and Robert, our families, and the Odd Sheep who were so supportive and put up with a lot while we were writing. Also, to our numerous friends who were given a sudden introduction to Joomla! and who gave of their time to read chapters and give encouragement and suggestions, thank you.

A very special thank you to Terrence H. Pocock for bringing home a Teletype, which inspired a lifetime love of technology in his youngest daughter. And to Joan and Fred Waring for showing their daughter a counter sorter.

Thank you to Gabrielle Heller, who read the whole manuscript, and of course Debra Williams Cauley at Addison-Wesley, who was a tireless advocate for Joomla! Press and kept us on track.

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About the Authors

Jennifer Marriott owns and operates a Web development company, Marpo Multimedia, that specializes in Joomla!-powered Web sites. Her company is located in northeastern Oklahoma, and although separated by distance, Jennifer stays close to her Canadian roots.

Jennifer joined the Joomla! community during the beginning days in 2005 and began volunteering as a forum moderator shortly after. Over the years she has taken on various roles in the community in addition to moderator, such as Joomla! Bug Squad member, Joomla! Google Summer of Code coadministrator and mentor, and Trademark and Licensing Team Leader. Although Jennifer has stepped down from her official roles in the Joomla! project, she remains an active community member.

In addition to her work in all things technology related, Jennifer is a professional musician. She has two CDs released, and in 2010 she went back into the studio to record her third release.

Elin Waring is a longtime Joomla! user and former president of Open Source Matters, the nonprofit organization that provides legal, financial, and organizational support to the Joomla! project. In that role, she led a number of initiatives ranging from writing the translation policy to obtaining a trademark for the Joomla! brand. She has made more than 6,000 posts on the Joomla! forums and wrote most of the Frequently Asked Questions for Joomla! 1.0. She is an active member of the Joomla! Bug Squad and participates in many Joomla! events.

Elin is a professor of sociology at Lehman College, City University of New York, where she teaches research methods. She has published a number of books, including *White Collar Crime and Criminal Careers* (Cambridge University Press, 2001), *Crimes of the Middle Classes: White Collar Offenders in the Federal Courts* (Yale University Press, 1991), and *Russian Mafia in America: Immigration, Culture, and Crime* (Northeastern, 2001) as well as scholarly articles in the areas of white collar crime, organized crime, and social organization.

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1

All About Joomla!

In this chapter, there is a little bit of history, a little bit of future, and a lot about where the Joomla! project is right now, including how it is organized and how to navigate through the Joomlasphere. Over the years since the project started in 2005, there has been tremendous growth both with the code base and with the community that supports, works with, and contributes to the code. As with a number of open source projects, Joomla! is more than just about code; it is about the people and culture that surrounds it.

Joomla! is used by people all over the world to create millions of Web sites. It powers sites ranging from personal blogs to large corporate infrastructures and Web brands. It is easy to use and administer for novice Webmasters and flexible enough to be used for complex Web solutions.

A Brief History of Joomla!

On August 17, 2005, Andrew Eddie, the lead developer of the Mambo open source project, wrote this letter to the community:

> Much has been said about the Mambo Open Source project and the establishment of the Mambo Foundation to benefit the future of Mambo.
>
> We, the core development teams, unanimously believe:
>
> - An open source project is about people producing free and open software and contributing to something as a team for the benefit of others.
> - Open source projects reflect the spirit of collaboration and fun while garnering community feedback and providing good governance that allows for business to confidently invest in its development.
> - Open source projects are open to the participation of anybody who can contribute value and is willing to work with the community.
>
> We, the development team, have serious concerns about the Mambo Foundation and its relationship to the community. We believe the future of Mambo should be controlled by the

demands of its users and the abilities of its developers. The Mambo Foundation is designed to grant that control to Miro, a design that makes cooperation between the Foundation and the community impossible.

- The Mambo Foundation was formed without regard to the concerns of the core development teams. We, the community, have no voice in its government or the future direction of Mambo. The Mambo Steering Committee made up of development team and Miro representatives authorized incorporation of the Foundation and should form the first Board. Miro CEO Peter Lamont has taken it upon himself to incorporate the Foundation and appoint the Board without consulting the two development team representatives, Andrew Eddie and Brian Teeman.
- Although Mr. Lamont through the MSC promised to transfer the Mambo copyright to the Foundation, Miro now refuses to do so.

What we will do: We will continue to develop and improve a version of this award-winning software project currently released under the GNU General Public License. We wish Miro and the Mambo Foundation well and regret that we are not able to work with them.

We have retained the Software Freedom Law Center to advise us in this matter and will release more information about our short-term plan in the near future.

For more information please visit Open Source Matters

17 August 2005, The Mambo Development Team :

Andrew Eddie

Emir Sakic, Andy Miller, Rey Gigataras, Mitch Pirtle, Tim Broeker, Alex Kempkens, Arno Zijlstra, Jean-Marie Simonet, Levis Bisson, Andy Stewart, Peter Russell, Brad Baker, Brian Teeman, Michelle Bisson, Trijnie Wanders, Shayne Bartlett, Nick Annies, Johan Janssens

---

Andrew Eddie
<><
Mambo Core Developer February 2003–August 2005

The same letter was posted to the new forums located at OpenSourceMatters.org. With that letter, one of the largest open source project forks began.

Within 24 hours, approximately 600 community supporters had joined the forum at OpenSourceMatters.org, and a call went out to the community to suggest a name for the new project. While this was going on, the forked code base was going through a transformation, making it ready for rebranding and structure under the new name, as well as a few bug fixes. Hundreds of names were suggested for the new project. The Core Team at the time enlisted the help of a marketing and branding consultancy to assist them in making this important decision. Two key factors were heavily considered while determining the new name of the project. The first was the importance of the name being uniquely new and unused, and it needed to signify what the project was all about in terms of its community philosophy. On September 1, 2005, the chosen name

was announced as Joomla!, which was derived by using the English spelling of the Swahili word *jumla*, meaning "all together."

The next request to the new Joomla! community on September 7, 2005, was a contest to create a logo with the new name for the project. Approximately 500 community members submitted logos for consideration, and on September 14, a poll was announced with the top five logo designs selected by the Core Team.

On September 16, Joomla! 1.0 was released to the community, and the Developer Forge was announced at *http://developer.joomla.org*. On September 18, the Joomla! Demo site was announced as operational, and on September 19, at the end of the voting period for the logo contest, the community had cast a total of 2,761 votes, with 31 percent of the votes going to the entry "Joomla 01" designed by Alan Urquhart, community member, photographer, and graphic designer. Figure 1.1 shows a copy of his winning entry.

Joomla! 1.0 was followed quickly by 1.0.1, which contained some small bug fixes and completed some of the rebranding process. On October 2, 2005, 1.0.2 was released with the rebranding effort complete.

In 47 days, with the help of approximately 7,100 community forum users, a dedicated Core Team, and a wide user base, the Joomla! open source project began its official journey to being one of the most widely used content management systems in the world.

On October 6, it was announced that the Joomla! project won "Best Linux/Open Source Project" for 2005 and that Brian Teeman, a founding member of the project, had won "UK Individual Contribution to Open/Source" for 2005, both at the Linux & Open Source Awards in London, England.

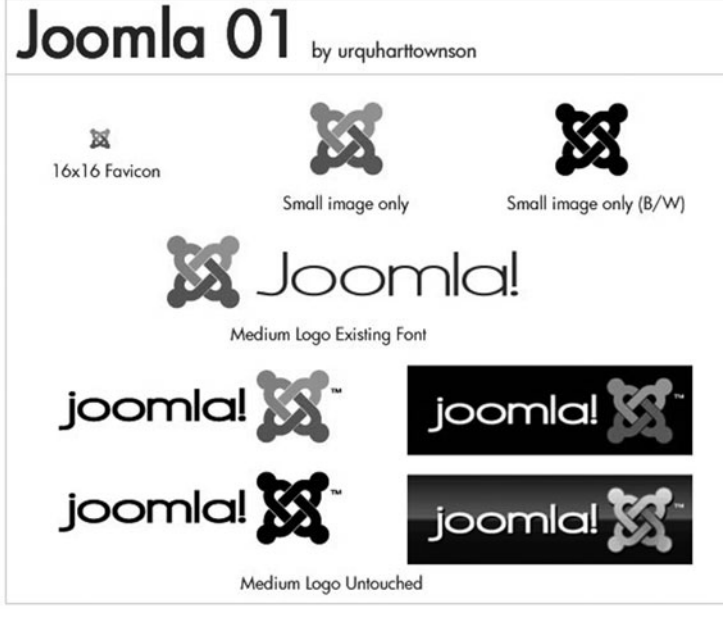

Figure 1.1 Alan Urquhart's winning logo contest submission

Joomla! the Content Management System

A content management system is software that allows you to create and manage Web pages easily by separating the creation of your content from the mechanics required to present it on the Web.

In a site, the content is stored in a database. The look and feel are created by a template. The Joomla! software brings together the template and the content to create Web pages.

To expand on that specifically in relationship to Joomla!, it is a content management system that is Web-based and that allows content and data to be collaboratively shared and created. Joomla! allows people with or without technical knowledge of coding to be able to have dynamic Web sites that they can easily manage.

One way we like to describe Joomla! to people who are new to content management systems is to compare it to a standard office. The whole of Joomla! is the room. The filing cabinet in the office is the Article Manager, where you have sections (drawers of the filing cabinet), categories (file folders), and your articles and content items (pieces of paper, images, videos, sound, and other data inside the file folders). You can extend or add things to your office such as a phone (Joomla! extension: live chat extension), fax machine or scanner (Joomla! extension: form submission), and computer (Joomla! extension: content editor) to make your workflow easier. The great thing is Joomla! keeps all of it organized for you. (Extensions are described more fully later in this chapter in the "Joomla! Extension Directory" section.)

Another powerful way that Joomla! allows you to manage your site is through the User Manager. The User Manager allows you to control how your users interact with your site through the use of simple user groups, which is similar to being able to lock your door to your office or filing cabinets. This allows you to give permissions on specific levels to those viewing or browsing your Web site and a different set of permissions to those who are contributing content to your Web site or managing your Web site with you. The Media Manager helps you manage your media files such as images, videos, or documents by allowing you to create folders to organize them, and it integrates with the built-in Content Editor, which makes it easier to insert them into your content items. It is very similar to how your computer helps you store and find your files to use them effectively.

Joomla! right out of the box has the functionality that most people need to have a basic, easy-to-manage, informational Web site. It also allows for a very high level of extendability to create very complex Web sites and information systems.

Joomla! the Framework

Software frameworks refer to the architecture of a program. Frameworks are efficient because they allow for code to be reused as part of the design.

Understanding the Joomla! framework isn't necessary for most users of the CMS, but it is the integral foundation that makes the CMS work so well. The framework is the base set of software libraries and design patterns that the CMS runs on, and it is the part of Joomla! that makes it easily extendable.

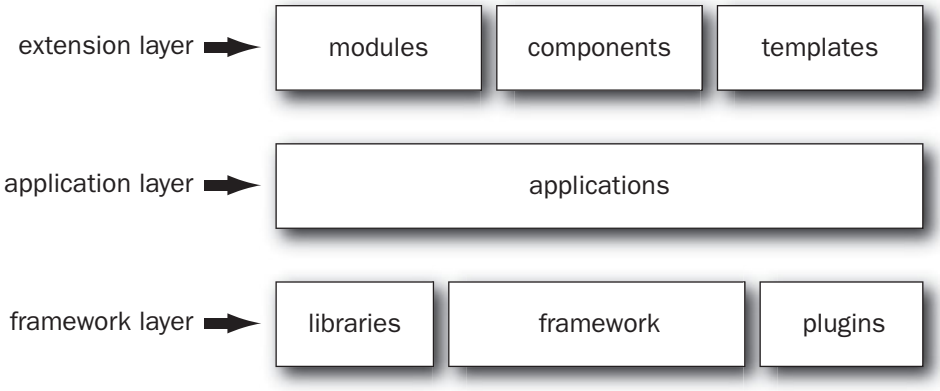

Figure 1.2 Diagram of how the three layers (the framework, the CMS application, and the extensions) work together

Joomla! 1.5 introduced the Joomla! framework as the first step to separating the framework elements of the program from the CMS application. This was done to allow for the framework to support multiple applications, not just the CMS. Figure 1.2 illustrates how the framework supports the CMS application and how the CMS application is extended with extensions.

Framework, libraries, and plugins make up the foundational layer. Libraries are reusable "collections" of code that perform a specific function and that can be reused by different independent applications and the framework. Libraries allow data to be used and shared in a modular way. Plugins are used to extend the functionality in the framework.

Applications are programs that run using the functionality of the framework. The Joomla! CMS is an application that runs on the Joomla! framework. The separation of the application layer from the framework layer allows developers to create other applications to run on the framework's functionality.

Modules, components, and templates are items that extend applications. Modules, for example, are a way to present data, components are a way to organize and store data, and templates are a way to visually organize data presentation.

The Joomlasphere

The Joomla! project is a very broad and diverse community made up of users and developers of all levels of experience. To support the community, the project offers a number of resources to help people use Joomla!, extend it, and develop on it. The first stop in the Joomlasphere is the Joomla! forum.

The Joomla! Forum

Internet forums or message boards are used for online discussions between groups of people both small and large. As of the writing of this book, the Joomla! forum

(*http://forum.joomla.org*) has almost 350,000 registered users, 440,000 topics of discussion, and close to 2 million posts, making the Joomla! forum one of the largest forums on the Internet. The popularity of the Joomla! forum means that lots of people have asked questions and received answers on how to get started, install, use, and extend Joomla! The forum is also one of the places where the project helps keep the user base informed with announcements, including information on the current status of the various aspects of the project, and it also allows the project to get feedback from users.

Most Internet forums are organized with the same basic hierarchical structure.

- *Forum:* Usually the front page that gives an overview of the organizational structure of the forum, showing what boards are available to read and post in.
  - *Board:* A general subject category.
    - *Topic:* A specific topic of discussion. Topics are started by someone making a new post to ask a question or start a topic of discussion.
      - *Posts:* Individual communications from one user.

The forum is divided into a number of main boards that help direct users to the proper place to find an answer, ask a question, or start a topic of discussion. Some of the main boards have subboards that divide the subject matter into smaller themes.

The first step is to register your account on the forum. Near the top of the forum is a Register link. Once you click it, you are shown terms and conditions for using the forum and the software that runs the forum. If you agree to the terms, you can continue with the registration process. After you have agreed to the terms, you are taken to the registration screen where you will type in the username that you want to use, your e-mail address (which needs to be a valid e-mail address), and a password. You can also set your language preference and your time zone. There is a spam prevention captcha, which consists of a word recognition puzzle at the bottom that you must solve, and then you can submit. After you submit the registration form, a verification e-mail will be sent to the e-mail address that you specified. The e-mail sent to you, after submission, will ask you to verify your e-mail address by clicking a link that directs you back to the forum. If you do not perform this step of verification, your forum account will not be activated. If you do not receive the e-mail fairly quickly, check your spam e-mail box to see whether it was redirected there. If you still have not received a verification e-mail, you can visit the forums again and click Login; from that screen, you will be able to have the forum resend the activation e-mail.

The first board is the Joomla! Announcements forum, which is used for the project to announce important events such as a new release (version of Joomla!), security bulletins, and other information important to the community at large. Subscribing to a board allows you to get e-mails when new announcement posts are made. To subscribe to the Announcements board, you need to be inside the board itself. You do this by clicking the Announcements board title on the front page of the forum. Once you are inside the Announcements forum, you will find the Subscribe forum link just under the title Announcements. It is highly recommended that everyone in the community subscribe to this forum.

If you have come to the forum to solve a problem you are having, using the search function can save you a lot of time. The search box is located in the upper-right corner of the screen. This search box searches all the Joomla.org sites for words or phrases matching your search query. Most common issues and questions have already been asked and answered a number of times on the forums. When searching the forum, it is important to try to use search terms that are relevant to your issue but not so broad as to return results that are too general in nature. For example, if you are having an issue installing Joomla! because it won't let you continue to the next screen, you could use the search query *installation will not continue*. This will lead to a search results page that combines all the results from all the sites. At the top of the results screen, you can filter the results according to the site the results came from. If you click the Forum link, it will show only results from the forum. You can then browse the results and determine whether one of the results can help solve your problem. If the results are not satisfactory, you can try searching again using different terms or proceed to posting your situation on the forum to get the assistance of the community.

> **Tip**
>
> If you are getting a specific error message, try including the specific message, or portions of it, in your search query.

To submit a new post to the forum, it is best to look at the different boards available and find the one that applies the most to the issue or problem you are having. This will help you get assistance more quickly a lot of times, because a lot of community members tend to watch specific boards where they think they have the most experience and where they can do the most to help others. Using our example search query regarding installation, the best fit to get assistance would be the Installation board. When you enter that board, you can scan the available topics to see whether there is already a discussion that applies to your situation; also, at the top of most boards are "sticky" posts that are always situated at the top of the board. These sticky posts usually contain the answers to most commonly asked questions, resources for more help, and posts that are important to that particular board.

How to Ask Questions That Get Answers

To create a new topic on a board, click the NEW TOPIC button. The screen will refresh, and you will see a text editor where you can fill in the details of what you want to post.

- You can choose an icon. This is usually for fun or to show with a green check mark that a problem has been solved. It is important if you have received an answer that solves your problem to go back to your first post and edit it by marking it with the green check mark icon. This tells people that it is answered but also allows people looking for help to know a helpful answer is available in the topic.
- Make your subject title as descriptive as possible while still fairly short. Using "Help me" as a title or "URGENT" does not describe your issue, and most people

will skim past posts with titles like that. Also, do not use ALL CAPITAL LETTERS. Using all caps won't get you help more quickly and tends to be looked upon as an Internet social faux pas because it conveys SHOUTING. Having a descriptive title not only helps those wanting to help you but also helps those who are seeking answers.

Using our example of installation, a good descriptive title could be "Installation won't continue past the fourth screen."

- In the message body of your post, try to be as descriptive as possible regarding your issue. If you have gotten an error message, try to copy the exact error message you have received into your post. Try to describe what you see on the screen and what steps you were doing when the issue occurred. Sometimes it is helpful to post a link to your site (such as with template questions). Having a link to a site allows people to see exactly what is going on so they can help troubleshoot your issue.
- At the bottom of the screen, you will see the ability to upload a file, which can very helpful if you can't provide a link to your site. Screenshots can be helpful to show what is happening if you cannot share the link to your site or your site is not available for public viewing.
- When you are satisfied with the content of your post, click Submit.

After you have submitted your post, please be patient. Sometimes a community member will answer immediately, and other times it may be a few hours or even a day or two. If your question is not answered within a day or two, you may have to make another post to your topic to give more information. Always be polite and considerate of others, and remember to say thank you if someone gives you assistance.

The Joomla! forum is also the best place for people new to Joomla! to contribute to the project by answering questions of other users. No matter where you are situated in your Joomla! experience or your level of skills, there will always be someone else who has a question that you can answer. One of the very best ways to improve your knowledge of Joomla! is to explain what you know to others.

> **Tip**
>
> At the top of the forum there is a link that asks you to read the forum rules. These rules outline the community's code of conduct and make all the resources on the Joomla.org sites collaborative and friendly to everyone. The rules are pretty straightforward and common sense and are based on basic principles of being a good global citizen.

Joomla! Community

The Joomla! community (*http://community.joomla.org*) is comprised of everyone and anyone who uses, creates with, develops for, manages, or is a fan of Joomla! (and everyone in between too). The community front page gives a snapshot of almost everything that is current, showing the latest blogs from both project leadership and community members,

helpful tips, quick links to download or demo Joomla!, upcoming events, and information about Joomla! User Groups. The Joomla! Community Magazine provides articles on a monthly basis related to Joomla! targeted toward users and developers. Also linked in with the community site is the Joomla! People Portal site (*http://people.joomla.org*), which is a social networking public space.

Joomla! User Groups

Joomla! User Groups (JUGs) are geographical organizations created by users and are located all over the world. These are groups of Joomla! users meeting in person to discuss, develop, promote, and help each other with using Joomla! They are a great way to meet new people, and a lot of JUGs find interesting ways to contribute to Joomla! through events and activities. As of the writing of this book, there are more than 100 JUGs.

Starting a JUG is as simple as finding other people in your geographical area who are interested in Joomla!, having a primary and secondary contact person, and registering your group. Registering your group gives your group access to resources and materials that will help your group be successful in running events and organizing activities.

Joomla! Days

Joomla! Days are a variety of events that are organized by JUGs and other groups in the Joomla! community and are supported by the Joomla! project. They typically take the form of a one-day conference, with speakers and demonstrations.

Joomla! Developer Conferences and Summits

Joomla! Developer Conferences are similar to Joomla! Days but are targeted toward people of moderate to high coding skill who develop for, develop with, or extend Joomla! The conference schedule usually includes talks by the lead developers of the project on the current status of the code base, the road map for future development, and how to utilize the framework and application layers to extend Joomla!'s capabilities. It is also a chance for developers to get together and assist each other and their own individual projects and create a good sense of community within the greater community. There is also the opportunity to speak to developers of other open source projects who interact with Joomla!

Joomla! World Conferences

Joomla! World Conferences are large international events that span several days, organized by local teams working within the Joomla! project. The first one will take place in 2011.

Other community events are held regularly throughout the year such as bug-squashing (finding and patching bugs in the code), documentation camps, and user guide creation.

Joomla! Demo Site

The Joomla! Demo site (*http://demo.joomla.org*) provides people with a way to try Joomla! The site gives you a 30-day account with your own individual Joomla! installation. You

can explore the use of Joomla! and even build a fully functioning Web site. At the end of the 30 days, you can either continue with paid hosting or export your site to a different location.

Joomla! Extension Directory

The Joomla! Extension Directory (JED) is a centralized information portal (*http://extensions.joomla.org*) on GNU GPL extensions that have been created for Joomla! Extensions help expand the functionality of the Joomla! CMS and the framework, and most likely if you have a need for some functionality that isn't in out-of-the-box standard Joomla!, there has been an extension created for it. The other service that the JED provides is a platform to support the vibrant commercial and noncommercial GNU GPL developer community because its contribution to the Joomla! community is imperatively important to the growth and use of Joomla!

What Is a Component, Module, and Plugin?

- Components are mini-applications that integrate with the framework or CMS. They have their own specific functionality, their own database structures, and their own presentational aspects. Examples of components are a Web forms application suite, a photo gallery or document download system, or the Web Links component found in the default Joomla! installation.
- Modules are presentational elements. They take information that already exists and present them in visual "packages" that you can place in your template in a flexible manner. Modules also help extend components by allowing the data from a component to also be presented visually. Examples of modules include a latest photo from the photo gallery or a slide show of the photos. The default Joomla! install has a latest news module that extends the Content component to show a list of the latest articles added to a site.
- Plugins are small portions of code that work behind the scenes to assist how something behaves. As a page in a site is loading, plugins will scan the page and, based upon what is being sent to the browser, act according to the instructions that it has been designed for or programmed to do. Example plugins might insert the code from your analytics supplier such as from Google or Woopra, they might place a border or shadow around an item automatically, or they might be the editor that you use for editing your content. Joomla! has a number of default plugins such as the e-mail cloak that stops e-mail addresses presented on your site from being read by spambots.

The directory itself is set up so that individual extensions are grouped by the functionality they provide. A listing will generally contain information about an extension, what it does, and whether it is a module, plugin, or component. It will also list the developer's name or company name, include the date it was added to the directory, and include the last date that the extension's listing was updated by the developer along with links to download. Some developers include links to a demos, support options, or documentation.

The JED also allows users of extensions to rate and review them. An extension can be rated on a scale of 0 to 5, with 0 being unrated or low and 5 being excellent. Reviews are all read and approved by the JED team of editors before publishing. The analysis of reviews before publishing allow the JED editors to assure that the review follows the rules and guidelines that are published in the FAQ located on the JED site.

As of the writing of this book, more than 6,000 extensions are available on the JED site, with new extensions added every day.

> **Tip**
>
> Extensions are a great way to bring your Web site to life with added functionality that improves your users' experience. One thing to note is that if you install an extension and find that you don't want to use it or it doesn't supply the functionality that you need, you need to remember to uninstall it completely. Having outdated and unused extensions installed on your Web site can be a security risk. Also, it is good to keep a list of the extensions along with the version number of the extensions you are using on your site. It will allow you to be more easily informed if an extension needs updating. It is good practice to sign up for any update notifications that a developer may send out to the users of their extensions and also periodically check the developer's site for update or information. The vulnerable extension list (VEL) is a list of extensions that may have security issues that is updated as often as possible by the VEL team. A link to that list is shown at the top of the Announcements forum, and the list itself is located on the Official Documentation wiki (*http://docs.joomla.org*).

Joomla! Resources Directory

The Joomla! Resources Directory (JRD) is a recent initiative of the project to help users connect with professional providers of services that relate to Joomla! (*http://resources.joomla.org*). It is also a platform that helps professionals in the Joomlasphere promote their services, which fosters a greater community of contributors to the project. There are categories of service listings ranging from consultancies and freelancers to tutorials and training.

Sometimes You May Want to Call in a Professional

Many people hate to do it, but sometimes a professional is needed to either advise or assist someone in getting a job or a task done, whether it is a decision made at the beginning of a project or during the process before the project is done. There are times when we all overlook the benefits of hiring a professional, whether it's because we think we can do something for ourselves, because we believe we can learn our way through an issue, or because the funding to hire a professional just isn't available.

The good news is that Joomla! professionals come at all price levels and different areas of expertise, giving good value to their customers. Here are some examples of when to call in a professional.

- *If your site has been compromised or attacked because of a security vulnerability:* It is best to get the advice and services of professionals, even if it is only to check on the

steps you did yourself to clean up and restore your site. If your site and database are not checked properly to make sure that all the compromised files and data have been removed, you are at risk of having the same issue happen again.

- *If you are under a deadline to launch a site:* Sometimes we can all underestimate how long something is going to take. If you have a business and have prepared advertisements for the launch of your site and business, it may save you a lot of time and headache to have a professional help you meet your goal.
- *If you have an existing site but are unsure how to maintain it and keep it updated:* In that case, lots of Joomla! professionals offer training on both a one-on-one basis and in group classes. One class with a professional can make the difference between frustration and success.
- *If want a site and you just want it done, preferably sooner rather than later:* You just want to be able to log in and create or edit your content and get on with running your business or organization. Contracting a professional to create your site from start to finish is a good choice.

That being said, there is no absolute reason to hire a professional, because you always have the forum, documentation wiki, and a multitude of sites that offer documentation on various aspects of Joomla! such as Joomlatutorials.com or other sites that are similarly created by the community at large.

Joomla! Bug Squad

The Joomla! Bug Squad was created in late 2007 as a subgroup of the Development Working Group to take over maintaining releases of the code base once in stable release and to take the lead in the testing and polishing work in the final stages of preparing a new software release. Software releases usually follow a specific schedule set by the development team; usually the release schedule is as follows.

- *Pre-alpha:* This is the stage where functionality and design are fleshed out and is a period where new features are discussed and implementation starts. It is typically where bits and pieces of the software to come are brought together in the planning stages. These are usually development releases that are being analyzed and modified by the developers of the specific software itself.
- *Alpha:* This release is unstable and not suitable for live or production sites. An alpha release is usually the first release to a wider network of developers and experienced testers of a new major version of software. Alpha releases are used for testing, acceptance, and stabilization of the basic functionality that has been implemented. There can be any number of alpha versions released until the code base is determined to be stable enough to release as a beta release.
- *Beta:* This release is unstable and not suitable for live or production sites. Beta versions of software are usually feature complete, meaning that no major changes in features or functionality will be implemented during the remainder of the release cycle. Beta releases are major versions of software that have passed the alpha stage