

About Open Source Technology

In developing websites for our boutique service clientele, <business name> utilizes the industry standard programming languages of HTML, CSS (*cascading style sheets*), and JavaScript. We also employ the use of a variety of open source web technologies, including code validators, web browsers, and content management systems (CMS). This page provides a definition and overview of open source, as well as a list of common open source technologies and key advantages for using open source.

What is Open Source?

Most software that you buy or download is only available in what is called a compiled version. This means that the actual code created by the software developer (*the source code*) has been run through a program that translates the code (*a compiler*) into a format that can only be understood by computers. Compiled software cannot be read by humans, which prevents it from being copied and used by a competitor in a similar product. Most companies distribute compiled software because it enables them to have complete control over the quality and attributes of their products.

Open source software is produced under a completely different philosophy. With open source technology, the source code is readily available and modification of this code is encouraged rather than prohibited. Developers of such software believe that by allowing other developers to enhance or customize the code, the resulting technology will end up being of higher quality and benefitting more users over time.

There are several criteria which must be met in order for a particular technology to be considered open source:

- It must be freely distributed.
- Source code must be included.
- The source code may be modified by anyone.
- Modified versions of the software may be redistributed to other users.
- Open source software must not interfere with or require the exclusion of other software.
- A single license must apply to all users.

Some Examples of Open Source Web Technology

At this point, thousands of open source web technologies have been developed, but many of them are small, niche applications of which most of us are unaware. However, some highly popular and successful open source software tools have more or less become household names, including the following examples:

- **Linux** – computer operating system based on Unix
- **PHP** – scripting language used to create web applications
- **MySQL** – the most widely used database server in the world
- **Firefox** – web browser that currently holds over 30% of the browser market share and is the browser of choice for the majority of web developers
- **WordPress** – blogging and web content management system (CMS) built on PHP and MySQL
- **Joomla** – web content management system (CMS) built on PHP and MySQL
- **Apache** – HTTP web server application
- **PNG** – web graphics format (*.png files*)
- **MediaWiki** – “wiki” server software (*the software that runs Wikipedia*)

Advantages of Using Open Source

Open source web technology is good for both developers and businesses for a number of reasons, including the following:

- **It's Low-Cost or Even Free!**

As we all know, traditional software can be extremely expensive and may prove cost prohibitive for many individual users and small businesses. Software expenditures for new businesses often represent a large percentage of their start-up costs. The use of open source software can really help to reduce a business's initial capital outlay, as the core software is generally very low-cost or even free. The presence of viable open source alternatives has also helped to drive down commercial software prices over the years.

- **It's Constantly Evolving**

Most traditional software is upgraded only every year or two and is dependent upon a given company's development budget and corporate processes. A great advantage of open source technology is that there are often huge communities of programmers involved, allowing for rapid implementation of bug fixes and feature upgrades. The user community is also typically open to suggested enhancements.

- **It Encourages Modification and Customization**

With most computer software, what you see is what you get. A user must select the software which best meets his needs and then make the most out of what it provides. The availability of the source code for open source technology allows users to customize the software for their own individual needs. This is especially beneficial to more technically inclined users, particularly those with budgetary constraints.

- **You're Not Tied to a Single Vendor**

When you purchase traditional software, you are often fully reliant on one particular company for all of your product support needs. This may prove both costly and time-consuming in that you have to either pay for a premium support contract or be subject to long waits when calling general technical support hotlines. With open source software, support is available through the widespread user base by means of online documentation and internet forums.

In addition to support issues, there are other problems inherent in utilizing certain traditional software. At times, you will need to obtain additional software to work with your initial software product and your choices may be limited to those produced by the same company. Open source software is different in that interaction between technologies is encouraged. The availability of source code makes it easy for companies to develop software that is interactive.

<Business Name's> Use of Open Source

<Business Name> is a strong supporter of the open source model and we use open source technology whenever possible in developing quality websites for our clients and in managing our business operations. Some key open source technologies we use include:

- **Firefox Web Browser** – We simply cannot say enough great things about this wonderful browser! Not only does it render all of our standards-compliant web code absolutely beautifully, it also provides two free and highly useful add-on applications to aid in creating websites, the Firefox Web Developer Toolbar and Firebug.

- **HTML and CSS Validators** – All of our websites are hand-coded using HTML5 and CSS3 and are validated through open source validation tools, which allow us to easily identify and correct any potential errors before a site is released.
- **WordPress** – Whenever our clients need to have blogs incorporated into their websites, we always advocate the WordPress open source blogging platform. WordPress is user-friendly, includes many desirable features, and is continuously evolving due to strong support from the development community.
- **JQuery** – This cross-browser JavaScript library simplifies the process of client-side scripting for websites, enabling web developers to more quickly incorporate dynamic features such as image slideshows, drag and drop interfaces, and other animated effects to websites. While we strive to use HTML5 and CSS3 for the majority of our web coding, we value the use of JQuery to create effects which require additional scripting.

Conclusion

The general advantages for using open source technology are clear. <Business Name's> use of cutting edge open source technology allows us to create highly-customized and scalable websites and web applications in a cost-effective manner and provide the best possible service for our clients.