

Utility of JavaScript Frameworks in Web 2.0

The term "Web 2.0" takes hold of more than 9.5 million citations in Google. Still there is a lot of fuss about what exactly does the term Web 2.0 mean. Some people disapprove it as a meaningless marketing buzzword, and others accept it as the new conventional wisdom.

For me it's always the brighter side that I look upon. Web 2.0 websites allow users to do more than just retrieve information. Web 2.0 is an enhancement of [web 1.0](#) which provides the user with more user-interface, software and storage facilities, all through their browser. It basically involves Network as platform computing. The users can provide the data that is on the site and can exercise their control over the data. In other words, it allows the users to interact and collaborate with each other and also to create and control the user generated content in the community rather than passive viewing the contents meant for them.

Nowadays, user expects a higher degree of interaction from their web applications and on the same front expects the application to be more robust, flexible and responsive. Thus arises the need to use a framework which ensures the interaction and consistency. This is the place where JavaScript and AJAX plays a vital role. A large amount of work which earlier was used to be done on servers has been scattered to the client side, and that has led to the gradual increase in the complexity of UI. And this increasing complexity has led to the need to develop a well-structured and robust UI side application; JavaScript being the primary UI side scripting tool for long, hence becomes the obvious choice of the programmers over web. However, using JavaScript to create Rich Internet Application (RIA) is not easy because JavaScript faces issue in providing support to multiple browsers.

A JavaScript framework, however, makes this task easier by providing a library to produce a cross-browser code. Moreover, these frameworks also provide support for event handling and also can be used to manipulate DOM elements. Thus, JavaScript/AJAX framework has become a very popular means of creating Web2.0 applications. These frameworks ensure the consistencies among the web browsers and also provide an extended functionality to the developers.

But some points need to be kept in mind while building the application:

- The use of Java Script in web design can cause the web pages to expand. So for a readable and cleaner web page, these codes have to be separately stored.
- If the Java Script coding is not stored separately, then the search engine crawlers find it difficult to crawl the web pages for keywords and content.

But if we leave aside these disadvantages, we see that these frameworks provide the user with certain very useful features like:

- They are faster and less expensive. With less expensive, it means that the JavaScript based applications are easier to be implemented and maintained, both in terms of cost and time.
- Its use in the web application readily increases the application's responsiveness as the developer moves the code to the client.
- With its help, very high dynamic image effects can be created which improve the visual quality on the web page.
- Its open source libraries reduce the coding efforts which sometimes could be very annoying. Also, the widgets provided along with reduce the coding effort.
- One primary reason of using JavaScript in web development is the fact that it provides you with predefined tools and hence save your precious time to code them out. Why write codes then. Tools are there- use them.
- Most of the JavaScript frameworks provide the developer with function 'chaining'. Chaining provides the developer more features with comparatively lesser code to maintain. It increases the reusability of the code since it can be used to perform a series of action on a single object.

The picture seems to be quite clear now that how efficient the application can be when JavaScript framework is introduced in developing that application. Here the choice of frameworks available is also vast. Some are as follows:

- JQuery: One such framework has a centralized plug-in directory. It is quite easy to be used by developers having little experience in HTML and CSS.
- Mootools: Another JavaScript framework has a compact and modular design and has an object oriented approach to the components.
- Dojo: A good packaging system and focus mainly on accessibility, and features like data storage systems, rich-text editor, charts.
- EXT-JS: Supports features like Event Handling, AJAX support, Namespacing, Cross-site scripting.

But which framework to use in web 2.0? Nevertheless, all JavaScript frameworks differ in their approach. The way choice of the framework is done should be determined by what the requirements and expectations are.

The framework you choose must synchronize with the project requirements. It must ensure that it is performing the tasks as expected. But there comes another parameter of evaluating the framework to use, and that is, speed. No matter how good the site is visually, if it is slow the user might not prefer it. Hence, the framework must be fast enough so that the code can run quickly. The modularity aspect of the application is needed to be kept in mind while deciding which framework to go with so that only the required functionality can be picked rather than going with the large group of unnecessary functionalities. Also, the usability aspect of the framework is needed to be understood. For e.g. what level of interaction is needed for the code? Whether, it should be lightweight or heavyweight. Last but not the least; documentation plays a vital role in determining which framework to choose to build the web application.

It is no doubting of the fact that the use of JavaScript in web 2.0 makes the application more efficient, faster and presentable. Only choosing the right option out of the plenty available is important.

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About the Author

Prashansa Singh is associated with Zven as Software Engineer and is a primary member of the product development team. She has an active participation in the technical side of the things in the company and often contributes with topics such as the one presented above. The article is a result of personal experience gained during the product development and also by the evaluation of numerous javascript frameworks that she has touched upon in the last few month.

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