A Survey on Various Upcoming Web Technologies

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**Abstract**—Recent but emphatic developments in various web technologies has led to a simple, pellucid programming (both GUI and backend logic). All the new Languages, Frameworks and Libraries unequivocally

led to a revolution in the web development and helped Designers as well as Programmers to commandeer and accentuate their projects more significantly. This paper gives a recce about the flamboyant enhancements in the web graphics, server side scripts and evolution of a framework for creating phone applications compatible in all current OSs.

**Index Terms**— WebGL, Sencha, Ext JS, Touch, Animator, WebGL Security, CakePHP, MVC, PhoneGap Build, Google Web Designer.

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**1 INTRODUCTION**

Recent trends in web technologies have led to ineffable changes in the trivial web designing, making the sites more interactive and impetus. Although the scripting and the intermediate steps have become quite sophisticated. Ignoring the only con we can say that it has acted bona fide. Due to these technologies the procrastination caused by the trifle technologies has been nullified.

These technologies have a far greater scope for development. Developers already working on technologies above are still researching ways to refine and boost the effects. In this paper, we have elucidated various technologies and scope for their further evolution.

**2 ANALYSIS OF WEB TECHNOLOGIES**

**2.1 WebGL**

WebGL is based on OpenGL ES 2.0. WebGL is a new web standard for browsers which aims to bring 3D graphics to any page on the internet. It has recently been enabled by default in Firefox 4 and Google Chrome, and can be turned on in the latest builds of Safari. Context has an ongoing interest in researching new areas affecting the security landscape, especially when it could have a significant impact on the clients.

Android devices now have appreciable support for WebGL. This allows us to write the majority of our demo once and get performance numbers for both desktop and mobile.

**WebGL is faster to develop with.**

Its benefits: lightning-fast iteration times, lots of open-source third-party libraries, some nice language features such as functions as first-class objects and JSON serialization

**2.2 Sencha**

Sencha has various products and each has its unique significance.

1) Sencha **Ext JS**-most powerful desktop application development platform with unparalleled cross-browser compatibility.

2) Sencha **Touch**-everything you need to create powerful, universal mobile web apps

3) Sencha **Animator**-create CSS3 animations for WebKit browsers and touch screen mobile devices.

In this paper we are trying to focus mainly on Ext JS, Touch and Animator. The later help in GUI and game

Development.

**2.3 CakePHP**

CakePHP like various other PHP Frameworks has become popular among developers due of the facileness of the programming it offers. CakePHP an open source web application framework uses well-known software engineering concepts and software design patterns like Convention over configuration, Model-View-Controller, Active Record, Association Data Mapping, and Front Controller.

CakePHP is mainly inspired by Ruby on Rails. Licenced under MIT, it removes monotony from web development and makes it perfect for commercial application. Various other features of CakePHP include integrated CRUD for database interactions, application scaffolding which is a great way of getting the early parts of the web application started, build in validation, fast and flexible templating, flexible ACL, Data Sanitization, flexible Caching and Localization. It works from any web site directory, with little to no Apache configuration involved.

**2.4 PhoneGap Build**

PhoneGap is an open source framework for creating native web applications for mobile devices like iPhone, Android, BlackBerry, Palm webOS, Symbian WRT (Nokia) and many more using HTML, CSS and JavaScript.

It provides a rich collection of client-side JavaScript APIs.The software underlying PhoneGap is Apache Cordova which is an Open source software. PhoneGap provides various basic plugins that allow access to the device's accelerometer, camera, microphone, compass, file system, and more.

**2.5 Google Web Designer**

Google Web Designer is an advanced web application that helps us create interactive HTML5 based designs and animations that are compatible with vast devices. Using 3D objects, texts and drawing objects we can effortlessly animate objects.

All we need to do is to create designs and the code behind it is generated automatically. However the code can be changed based on our requirements and the codes are hand-editable.

The sites created can be instantly published here with DoubleClick Studio and Google Drive Integration.

**3 OUTCOMES OF A SURVEY (STUDY REPORT)**

**3.1 WebGL**

Initially released on March 3, 2011, the WebGL was claimed unsafe. There were dangers with WebGL that put users’ data, privacy and **security at risk**. These issues allowed an attacker to provide malicious code via a web browser which further allowed attacks on the GPU and graphics drivers. These attacks on the GPU via WebGL rendered the entire machine unusable. Mostly these challenges are obliterated but still various enhancement could me made.

**3.2 Sencha**

Ext JS 5 adds support for touch-based gestures and now allows desktop Ext JS apps to run on touch-screen devices such as tablets and touchscreen laptops and is available under the GPL v3 open source license. The JS is very powerful.

Sencha Touch was initially quite unstable but Touch 2 has brought about stableness. It’s a technology thats lightyears ahead.

With Sencha Animator 1.5, you simply drag and drop objects onto a canvas, and then adjust related properties and key frames to create rich interactive animations. This versatile tool has been used to create games, ads etc.

All the sencha Applications have a far way to go. Programmers are pleased enough. Enough developers are currently working on Sencha and most famous sites use Sencha for UI purposes.

**3.3 CakePHP**

CakePHP has become popular among developers because of the easy and speeded up process to create web applications. It not only helps us gain time nevertheless also provides us with stability and security as the framework has been thoroughly tested by the community.

However the part of the performance that reduces the load time even more so visitors can surf without any problems is missing. Therefore, it is a good idea to try to discover how the performance of the PHP Framework can change and improve the visitor experience.

**3.4 PhoneGap Build**

A sponsored project of Nitobi (a Software Consultancy), PhoneGap is free to use under a licence by MIT and currently owned by Adobe.

Talking about furthur developments it could start addingrichfeatures to PhoneGap in order to make the HTML5 hybrid apps (wrapped with PhoneGap) perform much better, even emulating the performance of full­-blown native apps.

**3.5 Google Web Designer**

We can easily start creating gorgeous visual experiences by downloading the Google Web Designer Beta and learning the basic functions.

It uses syntax highlight and code auto completion to make our code easier to write, with fewer errors.

With the release of the new version of the designer various issuses have been fixed. However animation is not smooth and textured on some devices and videos do not play in iOs 6.x version. These are couple of the issues that need to be resolved and appreciated with the upcoming versions of the Web Designer**.**

**4 CONCLUSION**

In this paper we have discussed, reviewed and appraised the currently upcoming web technologies. In addition to this we tried to narrate the various upgrades that can be made to achieve a new feat. Hereby we would to conclude by postulating that further acheivements could help us to excel in developers purpose.

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