WEB DESIGN CHALLENGES: ISSUES WITH DIFFERENT BROWSER COMPATIBILITY

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ABSTRACT

Web design is the process of planning and creating a website. Text, images, digital media and interactive elements are used by web designers to produce the page seen on the web browser. Web designers utilize markup language, most notably HTML for structure and CSS for presentation as well as JavaScript to add interactivity to develop pages that can be read by web browsers.

Now a day's different communication hardware is available like laptops with low resolution in size, tablet pc, mobile devices and computer itself. For this reason and availability of net services on different devises there are compatibility issues like not supported scripting languages, ActiveX controls, images, html pages resolution, not supported html tags, different browsers compatibility and so on.

Keywords: *Browser, HTML, CSS, Java Script, ActiveX, Mobile Devises.*

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INTRODUCTION

Web Design is a collection of text, image and video are create an html page is called. ActiveX (http://www.microsoft.com/activex), which is the Internet portion of the Component Object Model (COM), is Microsoft's component technology for creating small components, or controls, within a Web page. ActiveX distributes these controls via the Internet, adding new functionality to Internet Explorer.

(I) HTML: HyperText Markup Language (HTML) is the main markup language for web pages. HTML elements are the basic building-blocks of webpages. HTML is written in the form of HTML elements consisting of tags, enclosed in angle brackets (like <html>), within the web page content. HTML tags most commonly come in pairs like <h1> and </h1>, although some tags, known as empty elements, are unpaired, for example <img>. The first tag in a pair is the start tag, the second tag is the end tag (they are also called opening tags and closing tags). In between these tags web designers can add text, tags, comments and other types of text-based content and HTML allows images and objects to be embedded and can be used to create interactive forms .

The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.It can embed scripts in languages such as JavaScript which affect the behavior of HTML webpages.

Web browsers can also refer to Cascading Style Sheets (CSS) to define the appearance and layout of text and other material. The W3C, maintainer of both the HTML and the CSS standards, encourages the use of CSS over explicitly presentational HTML markup.

HTML code writes something to your notepad editor,

Simple create a webpage are below code.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Hello HTML</title>
  </head>
  <body>
    <p>Hello World!</p>
  </body>
</html>
```

(II) JavaScript: JavaScript is that was designed for the web. JavaScript can be used to manipulate your webpages to perform a variety of functions. Some of the applications are purely functional, the JavaScript to be effective, You do need to know how to work with your HTML documents, however, because you will be pasting your scripts into the HTML code, and you will need to know where to place the JavaScript. JavaScript reacts to users actions in most cases. For instance, if the user moves their mouse over some text or a graphic, JavaScript can perform a rollover and make that graphic or text change to something else. JavaScript can provide functionality, such as password protection, browser detection, or display information, such as the correct time and date on a webpage. JavaScript can be used to give the website designer more control over a, and how that browser sees the webpages. JavaScript write something to your HTML document. Within your text editor,

```
<scripttype="text/javascript">
<!--
document.write("<i>HI   Everybody!</i>");
//-->
</script>
```

(III) Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation semantics (the look and formatting) of a document written in a markup language. Its most common application is to style web pages written in HTML and XHTML,

CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content.CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in printing.

(IV) Web browser: A web browser is a software application for retrieving, presenting, and traversing information resources on the World Wide Web. An information resource is identified by a Uniform Resource Identifier (URI) and may be a web page, image, video, or other piece of content; Hyperlinks present in resources enable users easily to navigate their browsers to related resources. A web browser can also be defined as an application software or program designed to enable users to access, retrieve and view documents and other resources on the Internet.

Although browsers are primarily intended to access the World Wide Web, they can also be used to access information provided by web servers in private networks or files in file systems. The major web browsers are Firefox, Google Chrome, Internet Explorer, Opera, and Safari.

DIFFERENT BROWSERS: HTML TAG PROBLEMS

Your Web browser is a translation device. It takes a document written in the HTML language and translates it into a formatted Web page. The result of this translation is a little like giving two human translators a sentence written in French and asking them to translate it into English. Both will get the meaning across, but may not use the same words to do so.

The basic rules for translating HTML documents are established by the World Wide Web consortium, which publishes the official HTML standards. But there's considerable room for interpretation within those ground rules. For example, the HTML standards say that the TABLE tag should support a CELLSPACING attribute to define the space between parts of the table. But standards don't define the default value for that attribute, so unless you explicitly define CELLSPACING when building your page, two browsers may use different amounts of white space in your table.

In addition, the HTML standards usually run ahead of what the browsers support. No browser as yet supports 100% of the HTML Version 5 standard, but some browsers come closer than others. Over the past few years Internet Explorer has done a much better job of this than Netscape Navigator, though Opera has done possibly the best job.

But since support for the latest HTML tags isn't universal, you could be building your pages with parts of the language that not all browsers understand. In that case the browser will ignore that part of your page it can't translate, and the way your page displays will be affected.

This problem is further complicated by browser-specific "HTML extensions." Back during the heyday of the Browser Wars, both Netscape and Microsoft tried to get a competitive edge by running ahead of the HTML standards, inventing their own tags and attributes.

The theory was that Web designers would fall in love with these attributes and put little buttons at the bottom of the page saying, "Best viewed with Netscape Navigator." So Internet users would rush to download that browser and, voila, Netscape would win the Browser Wars.

In practice no Internet user will download a new browser just to view your Web site, so these HTML extensions only created headaches for Web designers.

The best way to minimize these problems is to pay attention to browser compatibility when building your Web page. Avoid using HTML extensions and be careful about using cutting-edge features of the language that may not yet be supported by all the major browsers.

DIFFERENT WEB BROWSER VERSIONS TO ARISE DESIGN PROBLEM

The major difference between two versions of the same browser is their support for newer portions of the HTML language. A new browser is generally better at displaying Web pages than an old one.

However, Internet users tend to upgrade their browser based on the addition of new features, like email integration and instant messaging. If a user doesn't care about these features, they're happy to keep surfing the Web with their old browser.

That presents a problem for Web designers, because for some length of time after the new browser appears, a significant minority of people will still use the previous version. So rushing to build pages with the HTML features supported by the new browser will have to wait.

A good rule of thumb is to design your pages to work for the last two versions of the major browsers.
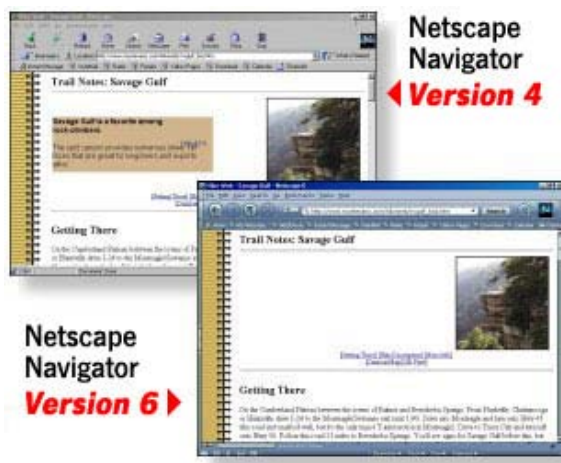
While a handful of people use browsers older than that, their numbers aren't large enough to justify the sacrifice required to support them. A few people still use Version 3 browsers, but these browsers don't support Cascading Style Sheets, which are the most important addition to HTML in the last 6 years.

Also note that new browser versions sometimes represent major changes in a browser, and in these cases all bets on the browser's behavior are off.

For example, Navigator Version 6.1 is a complete rewrite of Netscape's browser, so a page that worked well under Navigator Version 4 may not work under Version 6. That's especially true if you use Dynamic HTML on your pages.

Different Screen Sizes: If you don't test your pages using different screen resolutions, your page may be stretched to fit a large screen, or be cropped to fit a small screen.

Different Font Sizes: Most browsers allow users to customize their default font size,

HTML Errors on Web Browser: HTML coder who builds Web pages by working with the raw HTML tags, or a designer using a WYSIWYG editor like FrontPage or Dreamweaver, the odds are your finished Web page will contain HTML errors.

For example, look at these images. The HTML code on this page forgets to close a single TABLE tag, which is a violation of the HTML rules. Internet Explorer forgives this error and displays the page correctly; Netscape Navigator can't recover from the errors and doesn't display the page at all!
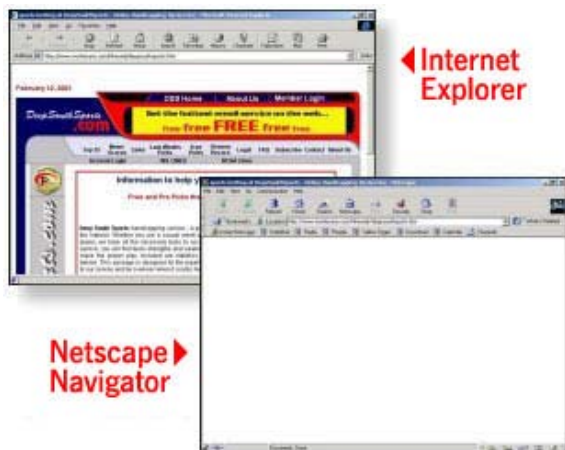
The best way to avoid HTML errors is to validate your Web page with a tool like HTML Toolbox. A validator will scan your page and spot areas where you've violated the rules of good HTML. Correcting these errors and following the rules of good HTML goes a long way toward removing browser display errors.

Browser Bugs: building a Web page that displays well on all browsers isn't easy. To make matters of poorer quality, sometimes you've done everything right, and your page still doesn't display correctly under one specific browser. It's not your fault - you've just encountered a browser bug. Unfortunately, browser bugs are a fact of life for Web designers. Each browser has its own unique set of errors and coincidences that you have to adapt.

For example, take perhaps the most widely encountered browser bug in existence. The HTML standards say that when you build an HTML table, you don't have to explicitly close each table cell with a closing </TD> tag. This closing tag is optional. Yet unless you explicitly close your table cells, Navigator 4 will not display your table if it is nested inside another table. Since nesting tables is common practice to control page layout, this bug wrecks many well-designed pages.

STANDARD RULES FOR CREATING WEB DESIGN THE FOLLOWING LIST:

1) **Site Structure and content:** Structure   information so that is meaningful to the user. A structure that makes sense for the user will often differs from the information used internally by the provider. Different user groups may require different interfaces. Produce a card (or sticky note) for each anticipated page for the site, and use card sorting techniques to design an appropriate structure

2) **Writing style :** Make the text scannable with bulleted lists, highlighted keywords, meaningful headings and short sections of text, Do not include unnecessary "white space" as this impedes scanning the text and Do not expect users to read large amounts of text on-line: provide one large page for printing or a file to download

3) **Design an effective home page:** This should establish the site identity and give a clear overview of the content; the important information should fit on one screen, as some users will not bother to scroll the home page.

4) **Design for efficiency:**

I.   **(I)** it is important to minimize the download time as most web users have slow connections.

(II) Graphics add interest but are slow to load and can impede navigation.

(III) Use the minimum number of colours to reduce the size of graphics.

(IV) Use the ALT tag to describe graphics, as many users do not wait for graphics to load.

(V) Use small images, use interlaced images, repeat images where possible.

5) **Make text easy to read and use :**

(I) avoid the use of flashing or animation, as users find this very confusing.

(II) Avoid patterned backgrounds, as these make text difficult to read.

(III) Where possible use tables instead of frames, frames can interfere with printing and bookmarking.

6) **Support different browser Environments:**

(I) Test that your pages format correctly using the required browsers and platforms.

(II) Check that pages containing reference information or large amounts of text print correctly on the required browsers,

Platforms and paper sizes

CONCLUSION

Designing Web Content that is accessible to all users of file formats and markup language developers, Web authoring tools for developers and Web authors, designers, and developers, including the responsibility is shared between multiple instances. While promising practices exist between these constituent groups each, research shows that current efforts in Web accessibility for people with learning disabilities, individuals as its potential to provide an exemption to allow the medium is not enough. All components of the extra effort required to assure that Web content can be effectively delivered to all users.

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