

To <DIV> or not to <DIV> Implementing Standards Compliant Code at TechTV By Frederic Welterlin

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1. Introduction

Recent advances in formatting technologies, notably CSS (Cascading Style Sheets) have allowed for new processes to emerge in the development of web-based user interfaces. The W3C and a handful of forward thinking developers have (for some time now) been pushing for the use CSS and standards compliant code as a replacement to using current HTML techniques in the construction of web pages. This paper explores the advantages (and disadvantages) that CSS and standards compliant code can bring to the TechTV development process.

2. Why is Standards Compliant Code Important?

The *de facto* benefit of using CSS is that it allows developers to “separate the structure from the layout of web pages.” Adopting this technique can improve development time by placing all style-related code in a style sheet (which can be easily modified), and keeping structural HTML in the template. Other benefits include improved accessibility, faster page downloads, and a reduction in building browser specific code. Adopting universally accepted, standards-based guidelines will benefit TechTV in reducing development time in deploying new features for a variety of Internet appliances, simplify the maintenance and troubleshooting of existing code, and will show our affiliates and competitors that TechTV supports the advancement of web industry standards.

3. The Proposal

The current TechTV site supports non-compliant browsers via browser specific code. The site’s visual style is achieved through a combination of CSS and inline HTML. In the future, as TechTV changes directions and/or modifies the company web site based on business objectives, managing this disparate combination of code will become increasingly difficult.

My proposal for improving the TechTV web site starts with the adoption of standards compliant code, which will allow for richer web pages capable of displaying on a widening range of browser platforms (including mobile phones and PDAs). Several high profile web sites have already adopted this standard:

ESPN (www.espn.com)

ESPN’s web site is very robust, downloads quickly, and is feature laden. Non compliant browsers are redirected to a page that introduces the compliancy standard to those who are new to it, and explains in simple terminology the reasons behind the change.

WIRED (www.wired.com)

Wired Magazine Online has also adopted standards compliancy and also redirects non-compliant browsers to an explanation screen. The Wired site has adopted XHTML- for feeding content to portable Internet devices.

International Herald Tribune (www.iht.com)

The IHT web site uses a hybrid combination of HTML and CSS to create a highly intuitive user interface. The site degrades gracefully for non-compliant browsers.

Adopting XHTML

My proposal also includes adopting the W3C's XHTML 1.0 standard. XHTML is considered the future of HTML (it is actually a reformulation of the W3C's HTML 4.01) in that it incorporates the power of XML into HTML. XHTML will allow TechTV to create one HTML template that can be interpreted by a variety of Internet appliances (WAP, PDA, etc.) using cascading style sheets.

4. Benefits (and disadvantages) to Standards Compliant Code

Let's take a look at the most important advantages to using XHTML/CSS to achieve standards compliancy:

A. Browser Independence

As all web developers learn early on, coding for the client side can be a terribly frustrating experience given the myriad of browsers that each interpret HTML differently. Standards compliant code frees the developer from some of these restrictions by removing style-related code from individual HTML documents, and placing them in universally accessible style sheets.

B. Improved Accessibility

Standards compliant code improves access to web pages in several ways:

1. By removing style-related code from HTML documents, browsers can render templates much faster due to a decrease in page weight.
2. Users have more direct control of text font sizes (by either using the browser's text size settings, or by creating a UI component for changing text sizes dynamically).
3. Portable Internet appliances, such as web-enabled cell phones (WAP) and palm pilots, can also display the same templates using their own style sheets.
4. Text-to-Speech software can more accurately translate and deliver content to ADA web users.
5. Creating "printable versions" of templates is much easier to implement.
6. Search engines like Google and Yahoo can more accurately index pages, thereby improving the relevance of search results.

B.1 The "CSS Layout" or... The CSS Box Model

CSS can also be used to create the "CSS Layout" (also known as the "Floating Box Model") for structuring web data, as opposed to using the more traditional approach of HTML tables. These "boxes" use relative positioning and the natural, logical flow of the web document to place content, allowing the developer more freedom to manage its implementation.

B.2 Problems with the "CSS Layout"

The main problems with using the "CSS Layout" have mostly to do with how new CSS is. Although the standard has been around for a while- only recently have developers begun to use it more seriously in their work. CSS currently cannot do everything that HTML tables can do in terms of the positioning of content elements. There are also some variations in how CSS data is displayed in various browsers (implementing CSS into the browser is difficult due to the vague and confusing standards proposed by W3C). The

more complex a page design becomes, the harder it is to build using a table-less model. Finally, web designers are just accustomed to the grid model that HTML tables offer. The CSS Layout can be confusing as it is based on the idea of having data boxes that float relative to each other and the browser's borders.

5. Conclusions and Recommendations

Despite some of the problems inherent in working with CSS, the overall advantages far outweigh the disadvantages, especially when thinking about managing web templates that work across multiple platforms and browsers. As the industry leader in bringing technology issues to the television audience, it is important for TechTV to lead the way in adopting standards based compliant code.

How Will a Standards Compliant Web Site Affect TechTV's Audience?

Generally, regular visitors to TechTV.com will notice an improvement in the download time for individual web pages. Users will also have more control over font sizes (for better readability), better printer-friendly templates, and improved interactive features.

Note that standards compliant web sites will not work using Netscape 4.x browsers. Other sites that use compliant code (ESPN, Wired Magazine) use a sniffer script that redirects non-compliant browsers to a page that explains the reasons for adopting standards compliant code. As of June 2003, the TechTV statistics on browser usage shows that non-compliant browser usage is a small fraction of visitors.