

10 Questions to ask a potential Web Designer

**A Guide intended to help
determine the suitability of a
contractor for designing a website**

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The Questions:

1. What do you know about the W3C (World Wide Web Consortium)?
2. What do you do to address Web Standards?
3. Do you validate your code? How?
4. What Document Type do you use in your Coding? Why?
5. Do you design sites using tables?
6. Do you use Cascading Style Sheets?
7. What do you know about WAI (Web Accessibility Initiative)?
8. What do you do to address Web Accessibility?
9. How comfortable are you with writing XHTML entirely by hand?
10. Are you going to code my site from scratch? Or use a template or CMS?

Note that these questions and the information below is to assess the skills of a potential contractor with regards to her or his ability to develop a website that meets international standards and accessibility criteria. There are many web designers and businesses that can create websites from templates or from code that do not meet the international standards. The end results can look good and function well but may not be consistent across web browsers, for example, nor be well crafted to be able to accommodate changes in the internet. As a medium that is constantly changing, using a web designer who can create a website best prepared for those changes can help to ensure that the investment you make in your website will last for some time.

The Context:

The information below will provide context with which to assess the web designer's responses to the 10 Questions.

1. What do you know about the W3C (World Wide Web Consortium)?

Context: The W3C sets the standards that web developers should follow. The W3C (<http://www.w3.org/>) is an international consortium whose mission is "To lead the World Wide Web to its full potential by developing protocols and guidelines that ensure long-term growth for the Web." The Director of W3C is Tim Berners-Lee, who invented the Web in 1990. As of 4 January 2009, W3C has 411 Members, ranging from academia to software and hardware producers, government representatives and interested organizations (see <http://www.w3.org/Consortium/Member/List> for the list of members and links to their respective websites).

W3C has staff who work with their members in a “vendor-neutral” forum (in other words, they put aside proprietary software, operating systems, browsers etc) to ensure that the World Wide Web can be optimally used across the world based on open standards for web languages and protocols. (Note that the terms “Internet” and “World Wide Web” are not interchangeable: internet is the global data communications system - the hardware and software that enables the connections between computers around the world; the world wide web is a communications vehicle accessed via the internet.)

As the W3C website states, “[i]n order for the Web to reach its full potential, the most fundamental Web technologies must be compatible with one another and allow any hardware and software used to access the Web to work together.” Tim Berners-Lee’s dream for the Web “is of a common information space in which we communicate by sharing information.” (<http://www.w3.org/People/Berners-Lee/ShortHistory>, accessed Dec 2008)

2. What do you do to address Web Standards?

Context: W3C has published more than 110 Web standards and guidelines and refers to them as “Recommendations”, though they are similar to standards published by other organizations. The standards are the result of extensive consensus-building and are endorsed by the W3C Members and the Director.

The goal is that by using these standards in the creation of websites, the end user will experience a consistent and accessible website experience, no matter where they are, what equipment (computer or hand-held device etc) operating system (Linux, Windows, Mac etc) or software (Mozilla, Internet Explorer etc) they are using.

The standards also create a universality that supports people all over the world freely accessing and using information. This foundation of universality and what is called “Net Neutrality” has kept the World Wide Web from being controlled and limited by individuals and corporations seeking primarily profit. This has enabled extraordinary innovation, such as the many new tools for internet-based social networking. The importance of standards is elaborated by The Web Standards Project (<http://www.webstandards.org/learn/faq/> accessed Dec 2008):

“Tim Berners-Lee’s dream for his invention, the World Wide Web, is a common space where users can share information to work together, to play, and to socialize (The World Wide Web, A very short personal history). As web developers, creating business, social, and educational sites, we turn this dream into reality.

But in this period of tremendous growth, the Web needs guidance to realize its full potential. Web standards are this guidance. These standards help ensure that everyone has access to the information we are providing, and also make web development faster and more enjoyable.

Standards compliance makes it easier for people with special needs to use the Web. Blind people may have their computer read web pages to them. People with poor eyesight may have pages rearranged and magnified for easier reading. And people using hand-held devices can browse the Web just as easily as those using high-end workstations.

As we will explain, there are also many practical reasons for developers to be concerned with web standards. Search engines can do a better job of indexing sites, for example. Using browser-specific code often doubles or triples the work to create web pages, and leaves a lot to be desired when new media are introduced. This situation will only get worse without the sound direction of web standards.”

3. Do you validate your code? How?

Context: Validating the code of a website is like using spell check on a document, with many important additions. All website designers should validate their sites to the:

- W3C XHTML Recommendations;
- W3C CSS (Cascading Style Sheets) Recommendations;
- W3C Accessibility Guidelines.

W3C provides the validation tools free of charge (<http://www.w3.org/QA/Tools/>) as Open Source software so cost is not a barrier to validating websites.

Validation tools review the code on a website or style sheet to determine if it follows the standards set forth by the W3C. Failure of a site to validate XHTML may be the result of something as simple as a tag that has not been closed or the use of old obsolete tags. This can result in any number of difficulties including layout and formatting issues or cross-browser differences (where the site looks different on different versions of the same browser or on different browsers such as Internet Explorer or Mozilla).

As an example, it is very easy to forget to close a "tag" - a piece of code that will, for example, bold the text, or determine the placement of an image. If the tag is not closed, the remainder of the web page below that tag may be affected. Web browsers can do limited error-correction but relying on the end-users unknown web-browser to correct your website is somewhat risky and may result in garbled websites on different browsers and computers, or even if the web browser you commonly use is updated. (You may have seen websites with text or images over top of other text. This may be an example of code that has not been validated and a web browser that is unable to make the corrections.)

If ethical considerations do not incline you to ensure that your site is accessible, legal and cost issues may. Accessibility for people with disabilities is the law in many countries and if your site is found to be inaccessible, you may be subject to a lawsuit.

4. What Document Type do you use in your Coding? Why?

Context: Generally, the coding for a website begins with a "Document Type Directive". There are currently three types of "DocTypes": "strict" (meets the W3C HTML standard), "transitional" (meets some of the W3C HTML standard) or "frameset" (frameset is for sites built in frames, but is not very common any more). The Doctype Directive tells the web browser how to construct your document (in tech language, this is known as "parsing the document" or "interpreting the syntax").

The general consensus is that web designers should use a "strict" DocType wherever possible, as this will ensure that the website will address accessibility issues (technical and physical) as well as future developments and changes of the World Wide Web. Use of the "transitional" DocType indicates a step towards adhering to the W3C Recommendations but does not guarantee future compatibility.

"The great benefit of specifying a DOCTYPE is that when your page is loaded into a browser the browser enters what is known as 'standards mode' or 'strict mode'. In standards mode, browsers will know exactly how to handle the markup in your page, and you will get consistency across browsers and browser types." (Charla Beaulieu, accessed Dec 2008 from "Introduction to Web Standards, XHTML & CSS".)

Further, "The HTML standard states that every HTML document requires a document type declaration, to tell Web browsers, Web robots, HTML validators and other user agents, which version of HTML to use when parsing the document (interpreting the syntax). This allows the HTML language to grow and develop over time without causing confusion among the different versions of HTML. It also enables you to use HTML validators to check the structure and syntax of your HTML document." (<http://www.web-wise-wizard.com/html-tutorials/html-sgml-doctype-directive.html> accessed Dec 2008).

You can determine the DocType Directive of any website by opening it in a web browser, and looking under the various menu options of the Browser for "View" and then "Page Source". By clicking on Page Source, generally a separate window will open that will have a lot of confusing text (unless you are an experienced web developer) and angled brackets. At the very top of this page will be something that looks approximately like this:
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "<http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd>"> Note the word "Strict" rather than "Transitional".

This DocType Directive tells a browser that the website was created in compliance with strict W3C standards (ie, not transitional nor frameset), using the PUBLIC or non-proprietary document type whose definition will be found in the http link included in the Directive.

The benefits of having your site properly coded and validated with a Strict DocType include:

- better consistency across browsers and operating systems;
- compatibility with future browsers and technologies;
- content is easier to read on wireless devices;
- content is also easier to read on assistive technologies such as Braille readers and screen readers for the blind;
- better search engine ranking;
- no use of code that may not be supported in the future.

If there is no Doctype Directive at the top of the page source text, then that website is being interpreted variously (as in, not consistently) by all the browsers that are currently in use on millions of computers around the world.

5. Do you design sites using tables?

Context: Tables are ideally used for tabular data - such as average snowfall over the past 10 years. Before the use of cascading style sheets (CSS - see next question) many websites were designed in tables to try to address the design needs of a website - in other words, allowing the user to see a menu along the left hand side and various content in the main body of the screen was accomplished using a table with one row containing 2 columns, where one held the menu and the other held the entire contents of the web page. Unfortunately a huge number of sites are still being created using tables for the design layout. Any designer still using this method should consider upgrading their skills and learning CSS.

The main reason to avoid tables as a layout or structural element of your website relates back to accessibility. "Screen readers and braille devices have fewer problems with tableless designs because they follow a logical structure." (http://en.wikipedia.org/wiki/Tableless_web_design accessed Dec 2008)

Other reasons to avoid the use of tables for design are: table layouts do not meet the W3 recommendation of separating structure and presentation, table designs are inflexible compared to CSS designs, table designs can be overly complicated and make updating information difficult.

A structurally table-less website can also increase download speed, a consideration if you anticipate that people without high-speed internet access will be viewing your website.

6. Do you use Cascading Style Sheets?

Context: HTML (HyperText Markup Language) is the programming code that sets up the structure of your website (headings, sub headings, paragraphs, lists etc). Cascading Style Sheets (CSS) create the formatting or look ("presentation") of your website. These include the colour choices, font choices, text sizes, general layout of the web page etc.

One of the main goals of the W3 web standards is to separate structure from presentation. Using CSS is the only means of accomplishing this. HTML tags that allowed presentation in the past such as and <center> tags have been deprecated (are no longer recommended) and may not be supported in the future (near or distant).

Having a valid style sheet means that not only are you following the recommendations of the W3, but changing the look of your website can be much easier. For example, if you wanted to change the font size or colour of the text in all paragraphs on your website, across multiple pages, you would simply change the paragraph coding in the CSS, rather than having to change the coding for each and every paragraph in your website.

CSS also allows the same web page “to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices.” (http://en.wikipedia.org/wiki/Cascading_Style_Sheets accessed Dec 2008). Again, this addresses accessibility issues but also facilitates for the end user such actions as printing the text in the body of the webpage without having all the surrounding advertisements or links print as well.

Those who do not use CSS must incorporate HTML tags that are no longer recommended (deprecated) in order to apply their design (to headings, colour, layout, etc).

7. What do you know about WAI (Web Accessibility Initiative)?

Context: W3C has long had an initiative to develop accessibility guidelines and “support materials to help understand and implement Web accessibility”. (<http://www.w3.org/WAI/about.html> accessed Dec 2008). On 11 Dec 2008, they announced the release of Web Content Accessibility Guidelines (WCAG) 2.0. According to various sources, this Guideline is a significant improvement, providing a stable standard that is more flexible than the earlier version.

8. What do you do to address Web Accessibility?

Context: Much on web accessibility has been covered above, but there are many considerations to make a website truly accessible. Use of colours to highlight links or text, can make them inaccessible to those who are colour-blind; use of flashing effects can negatively affect those who are prone to seizures; the deaf cannot enjoy the benefits of videos if there are no subtitle options; the blind cannot use the website if it is structured in such a way that a screen reader cannot navigate the page; those with impaired vision will not be able to read the text if they are unable to increase the size of the font.

In Canada, any federal government internet website must meet their "Common Look and Feel Standards" (<http://www.tbs-sct.gc.ca/clf2-nsi2/>) These Standards are based on the W3C Recommendations and are intended to provide a consistent presentation of government services and content, no matter the site. Additionally, any projects funded by the federal "Canadian Culture Online" must meet "industry best practices, as well as widely accepted standards developed by such organizations as the World Wide Web Consortium.. and the International Organization for Standardization (ISO)." (<http://www.pch.gc.ca/pgm/pcce-ccop/publctn/techguide-eng.cfm> accessed Dec 2008).

The following is a summary of the Accessibility Recommendations from the W3C: <http://www.w3.org/WAI/WCAG20/glance/Overview.html> (accessed Dec 2008):

Perceivable

- Provide text alternatives for non-text content.
- Provide captions and alternatives for audio and video content.
- Make content adaptable; and make it available to assistive technologies.
- Use sufficient contrast to make things easy to see and hear.

Operable

- Make all functionality keyboard accessible.
- Give users enough time to read and use content.
- Do not use content that causes seizures.
- Help users navigate and find content.

Understandable

- Make text readable and understandable.

- Make content appear and operate in predictable ways.
- Help users avoid and correct mistakes.

Robust

- Maximize compatibility with current and future technologies.

9. How comfortable are you with writing XHTML entirely by hand?

Context: Anyone who is genuinely comfortable writing (or coding) XHTML entirely by hand is likely to be very knowledgeable and able to create a standards-compliant, accessible and functional website. The advantage of hand coding a website is that it allows more control over the structural and content elements of the website. When using a template or website design software there is a risk that it may automatically insert 'bad code'. If you are able to hire someone who can not only hand code but is also a good listener, the chances of them creating the website vision you have in your head are substantially increased.

Please note that some people may be entirely comfortable with hand coding but may not have the aesthetic skills to create something that looks good. It can be worthwhile to work with a web design firm that has a graphic designer on staff or on contract.

Note: XHTML is a version of HTML (Hypertext Markup Language) that incorporates XML (Extensible Markup Language) and is open source (non-proprietary) and recommended by the W3C. XML was designed to transport and store data while HTML was designed to display the data. XHTML (Extensible HyperText Markup Language) marries the two and while it is generally the same as HTML 4.01, it is a stricter and cleaner version of HTML.

10. Are you going to code my site from scratch? Or use a template or CMS?

Context: For those who do not want to or may not be able to write / code a website from scratch ("by hand") there is the option of using some sort of template or program that will auto-generate website programming code. However, there are none that currently can generate valid strict XHTML with proper structure and use of code. Many use tables for layout, and they frequently insert CSS right into the XHTML (XHTML and CSS should be kept

in separate files). They may also use proprietary HTML tags that will not work properly across browsers and operating systems.

CMS stands for Content Management System. This can be a useful tool for creating a website where people with little or no coding experience can maintain the content - as in, add new text, documents, links, announcements etc. Some CMS websites are custom designed but most use various template options that can be personalized for your particular site needs and visual preferences.

One such tool is the widely used WordPress (<http://wordpress.com/> - see my website for an example of a site using WordPress: <http://www.peelingtheonion.ca/>). CMS can be used to manage a great deal of information and allow sophisticated searchability, or can be fairly elementary for websites that do not aspire to be particularly dynamic (as in, the content is more or less static or stable). Although they are often a quick and easy way to get a site up and running, there are currently no content management systems that use valid strict XHTML and meet accessibility standards.

If you choose to use a CMS template, make sure that at a minimum it uses a Transitional DocType and separate CSS document.

End Notes

This document contains a lot of technical language, for which I apologize. However, it is important to understand these basics in order to be able to determine the skill set of someone proposing to create a website for you. There is, of course, a great deal more to learn about any of this and it can be found on that wondrous tool known as the World Wide Web (thank you, Tim Berners-Lee!).

I owe a great debt gratitude to Charla Beaulieu, who has generously answered my many questions on website programming and design over the past decade.

Please feel free to share this document with whomever and however you wish. I appreciate acknowledgement of its source but created it with the intention of assisting those taking their first (or otherwise wobbly) steps into the realm of website design and creation.

in community,
Abra

About the Authors

Abra Brynne has been snooping through the internet since she first learned to turn on a computer somewhere in the early 1990s. She fell into being the website "mamma" for various grassroots organizations since at the time she was one of the few who had a high enough comfort level to take on the task. She currently maintains the website and the listservs for the BC Food Systems Network, as the Network's Communications Co-ordinator. She is a longtime Foodshed Animator, focusing primarily on her own foodshed in BC's West Kootenays. From the beginning of her computer and world wide web experience she has been ably and patiently supported by friend and colleague, Charla Beaulieu.

Charla Beaulieu first studied computers back in the dark ages of the early 1980s at the University of British Columbia. Despite pursuing a degree in Chemistry, she never lost her interest in and skill with computers. She has taught a full range of computer related courses from programming to building your own computer. She has used her computer skills for good projects for many years and supports such websites as the famous "Hiking Grannies" (<http://www.hikinggrannies.com/>) and the BC Food Systems Network (<http://www.fooddemocracy.org/>) - all in Strict DocType, of course! She is an instructor in the Digital Arts and New Media Program of Selkirk College where she focuses on teaching Web Standards and Web programming to W3C Recommendations, Stop Motion Animation, and Digital Photography.

Acronyms & Definitions (sorry, it is inevitable in this W3C world!)

CSS: Cascading Style Sheets. They are known as “cascading” because they address the hierarchical nature of website programming code. So style rules will apply only to the appropriate (determined) level of website code.

HTML: HyperText Markup Language

HyperText is used to convey the fact that it is more than plain text - it can convey to the computer or other device additional information so that when a user clicks on it, it is a link to a new page, it may generate a definition, an image, or even launch an application (software).

Markup: the term is used in the context of the internet but originates in the days of the traditional publishing, when a paper manuscript had marks added to it to supply information to the final printer on what sort of typeface (known commonly know as a “font”) to use, how large etc. It serves a similar purpose in code for the world wide web.

XHTML: Extensible HyperText Markup Language XHTML is basically the marriage of HTML with XML (see below). XHTML 1.0 was a W3C Recommendation dating back to Jan 2000. The W3C XHTML 1.1 Recommendation has been in place since May 2001. If you want to learn more about XHTML, Wikipedia has a good article:<http://en.wikipedia.org/wiki/Xhtml>

XML: Extensible Markup Language (see Question 9 Context for more information).