3.00 Nitty Griitty Web Design

There are important differences between a web page and the same information on print. This section looks at the most important of the multitude of design considerations which have to be taken into account to build an effective web site.

3.01 Web technologies

Lets take a brief look at the basic building blocks that make up your practices presence on the Internet. A domain name and web site.

Your online identity is based on your web address, your domain name. This serves the same purposes online as your name, address and telephone number in the real world.

A domain name looks like mypractice.com or mypractice.co.uk – note that it doesn't start with www.

With www in front your domain name becomes a web address - www.mypractice.co.uk .

Add someone@ in front and it becomes an e-mail address - someone@mypractice.co.uk

At one time a .com domain name ending was considered essential. It didn't matter where your business was actually located. As the number of UK users increased this changed. Now, for businesses located in the UK and serving clients in the UK, a .co.uk domain is the essential, the .com optional.

You register your chosen domain name with a central registrar. For .co.uk domains this in Nominet - a not for profit company based on Oxford. Your registration runs for two years at a time and you automatically get the option to renew. If you fail to renew the name stops working and becomes available for someone else to register.

Once registered, you have exclusive rights to create a web site or allocate e-mail addresses based on your domain. It is important to ensure that the domain is registered in your practice name – not in the name of your web design or hosting company.

When VetsFriend went into receivership they had registered a large number of practice domain names to themselves rather than the practices concerned. These vets found that their web site disappeared and their e-mail addresses stopped working. They couldn't gain control of their domain names as the names “belonged” to the defunct company. These domains are in limbo, waiting until the original registration period ends and they one again become available for registration

Your web site needs to live on a computer connected permanently to the Internet. You could do this with a computer in the corner of your surgery – but usually you rent a bit of computer space with a hosting company. Hosting companies continually monitor their computers – properly called servers – and have a variety of backups and redundancies so that problems are minimised and your site is continually online.

Your web site is simply a collection of computer files. There are dozens of programs, no more difficult to use than a wordprocessor, that you can use to create your web pages. If you have a member of staff with a talent for design you could largely create and maintain your site in-house – though this can become expensively time consuming.

To present a fully professional face to the internet, you will probably want to use the services of a web design company. Lets consider what you need to look out for.

3.02 Using a web designer

You can't just wave your chequebook at a web design company and expect a fully functional web site to fit and forget. This is your business you are promoting. You understand how it works and how it relates to your clients. You need to be fully involved in the development of your site and you need to maintain a monitoring role to check that your practice is gaining the expected benefits.

Your clients, potential or existing, don't come to your site to admire the quality of the graphics or the layout of your pages. They come for the content. They come for information about your practice, products and services. The design of your practice web site should be driven by the presentation of relevant, quality content and not by other factors.

When you commission a web design company to create your web site it is all too easy to lose the focus on content. The resulting site is generally less effective, less flexible and often more expensive. At the moment that a web design company is commissioned, quality content is rarely sitting neatly filed in the practice office. Quality content is time consuming to create. The web design company will be pressing for the delivery of content so that they can get on with their part of the process. The temptation is to quickly produce enough content for the web design company to get going - minimum number of words and poor or no graphics.

Now to look at the problem from the web designers' point of view. They're on a deadline. They want to produce a site that looks good. They want to get paid. They want you to recommend them to other practices. They don't have enough copy to fill the pages. They don't have enough graphic material from your practice to make that the visual focus. The web design company has little choice but to create a page with a strong visual focus on the graphics they create and reduced space allocation for the abbreviated copy you provide for the sake of speed.

The final web site the practice signs off in this situation is generally visually attractive and displays the limited practice copy to best advantage. It will actually look like a “proper” web site because this is a universal problem and doesn't just apply to vets. Later, if you should actually get round to extending your copy, you will find that the visual focus on the designer produced graphics

and the reduced page area available makes it less effective. Really, you should start again, but after spending all that money ....

Before commissioning a design company, develop the content. Both text and graphics. Creating and linking basic web pages is easy - it can be done in most word processors nowadays - and it is a good test of the content. If it works as a basic text based site then your content is good. The typographic and graphic skills of a web design company can then be employed to lift the site and present the material to best advantage.

If you start by creating your content as text then you are unlikely to end up with a site crowded with superfluous graphics. Instead of adding design elements in order to fill the page you only add them when they enhance the presentation of your content.

Don't be frightened of open spaces on your web site. Whitespace – called that even when it is puce or purple – is the name given to areas without text or images. Used intelligently whitespace will frame and present your content, lifting it from the page.

3.03 Usability

If your site is easy for your visitors to use they will find the information they are looking for, feel confident moving around your site and stay to look around.

If your site is difficult to use your visitors will fail to find what they are looking for, feel uncomfortable and probably leave your site quite quickly.

A monitor screen isn't a piece of paper. Over hundreds of years paper pages have evolved to a universal tall and narrow format. Along comes the computer and all that is thrown out in favour of short and wide. For easier reading your pages should be laid out to shape text in to taller and narrower areas. Fitting your navigation links into a tall narrow column down one side of the page helps.

Your web designer will probably demonstrate your new site on a large, high resolution, state of the art monitor. With the growth in the popularity of laptops, pda's and internet connected mobile phones, as well as people using legacy equipment, your visitors may well be viewing your site through a much small and lower resolution window. Check that your site still works.

People don't like scrolling down through text – so avoid making them. Break text into separate pages once it needs more than two “page down” clicks to reach the bottom.

Help them keep their place by breaking text into short paragraphs with whitespace between them and by giving each paragraph a heading.

The lower part of a web page, the bit that isn't displayed when the page first loads, is said to be “below the fold” - a newspaper term for stories on the lower part of the front page and so not visible on the newsvendors display. People make decisions about whether to scroll down or to go elsewhere on on the basis of what they see “above the fold”. The visible copy should make clear what joys are hiding lower down the page.

Your visitors will have come to your site to find out about your practice, not to spend time working out how to get from page to page. All the links on your site, including those in the text, should have the same appearance. You don't have to follow the accepted standard of underlined and blue so long as your choice stands out from the rest of your text You could just underline all links – so long as no other text in underlined.

Keep the main navigation links in the same place, in the same order and in the same style. You want to make people comfortable as they use your site and an important part of this is for them to know where they are and where they are going. If you keep swiveling the signposts they lose confidence.

If visitors have to scroll your main navigation links off the top of the screen to read your content you should either repeat the links at the bottom of the page or provide a link to take them back to the top.

If your main navigation links aren't text based – if they are based on images or scripted effects – then you should provide a text only alternative for visitors who have those effects turned off. Some of the latest ways to access the internet – pda's or mobile phones for instance – have limited abilities to display some of these web page technologies.

3.04 Accessibility

Addressing accessibility issues helps your site to be seen and appreciated by the maximum number of people. As a bonus, a site that is fully accessible for all users is also fully accessible to the search engines.

The World Wide Web Consortium (W3C) was founded by the inventor of the web, Tim Berners-Lee, in 1994. It has long term goals for the Web and for Universal Access. Its' target is:

" To make the Web accessible to all by promoting technologies that take into account the vast differences in culture, languages, education, ability, material resources, access devices, and physical limitations of users on all continents "

Web Content Accessibility Guidelines (WCAG) are provided by W3C to help web designers make pages fully accessible. If a site conforms to the guidelines it can display a dated conformance claim on its pages i.e.

“ This site conforms to WCAG 1.0. Level A 4 April 2004 "

The guidelines don't expect you to produce sites that look any different. A normal user is unlikely to notice the difference. The guidelines do require you to present your information in an alternative way when it makes it easier for someone to read who is using an older computer, a

very new phone or adaptive technologies like text to speech converters or tactile braille displays.

Example guideline

From Web Content Accessibility Guidelines 2.0

"For non-text content, provide text equivalents that serve the same purpose or convey the same information as the non-text content, except when the sole purpose of the non-text content is to create a specific sensory experience (for example, music and visual art) in which case a text label or description is sufficient. "

Example in practice

Each image on your web site can be associated with an "ALT" tag – a block of text, displayed as your cursor hovers over a picture in some browsers. The guidelines specify that alt text has to be present for the benefit of those who can't see the picture – maybe because they are blind and using a text reader or maybe because they are using a mobile phone built into a watch.

The text shouldn't simply describe the image. It should replace the function of the image in the page. A right pointing arrow, clearly understandable as a link to the next page in a series, should be labeled "next page" not "arrow".

3.05 Disability Discrimination Act

The Disability Discrimination Act 1995 comes into full force in October 2004 and has implications for the design of practice web sites.

The Disability Rights Commission (DRC) have issued a Code of Practice to go with the Disability Discrimination Act 1995. The new code, while not having direct force of law, provides guidelines that Courts will refer to in the case of a dispute.

The DRC code refers to web sites specifically, showing them to be within the scope of the act. They also make it clear that all web sites accessible to the public are included, whether they are selling something or simply providing information.

The new code itself only offers very broad guidelines to what is needed to ensure that a web site conforms? There seems to be a general agreement developing that the guidelines to follow are those from the World Wide Web Consortium (W3C). Web sites should follow these in order to make their content available to any user. Conformance Level "A" - their least taxing set of standards - is becoming accepted as the minimum.

The Disability Discrimination Act doesn't provide any central authority that can bring an action against a web site owner - it requires a specific complaint by a particular user, disabled within the terms of the Act, to demonstrate that the web site failed to provide a service matching that provided for users without that particular disability. The description of disability included in the code is fairly wide ranging however so there are plenty of possible opportunities to offend.

Any practice commissioning a web site from now on should expect to get a site that complies with the spirit of the Act. If a practice gets a complaint about accessibility then they should have a come back on the designer.Early compliance with the act brings a reward - sites that do so are much easier for search engine robots to index and gain higher rankings in search results - until everyone is compliant of course.

3.06 Speed

Broadband Internet has arrived, does it matter if your web site is slow to load? The answer has to be, most emphatically, yes it does.

How quickly should a web page be displayed? This is highly subjective, different people have widely spread levels of tolerance to delay. Best to satisfy the maximum number so assume that your visitors don't have time to waste.

When someone clicks on a link to your page, there is a degree of anticipation. They are quite likely to hold their breath subconsciously. Try it. How long does it take until you become aware that you are holding your breath and have to make the decision to breath again? Generally five to ten seconds. All very unscientific - but it feels about right empirically.

Broadband is being promoted heavily but is still not universally available and remains expensive. Assume that your visitors will be using a standard modem. Newer technologies, particularly mobile phones, connect at speeds comparable to a modem

New modems are rated at 56k, 56000 bits per second. The "56K" is a marketing term and represents the theoretical maximum if there was zero length telephone line between the modem and the exchange. Users living close to their exchange and connected by recently installed lines may achieve speeds around 42-46K. If the user is distant from their exchange, if the lines are old or been chewed by the cat, if they have poorly installed extensions, if they are using a long telephone extension lead, if they have other phones connected to the same line. Any or all of these will create interference on the phone line. A realistic estimate of connection speed is half the headline – just 28.8K

How does 28.8K relate to the time taken for a web page to download? 28800 bits per second is 3600 characters per second - each character takes 8 bits. 3600 or 3.6K is directly related to the size of files on your computer.

A 3.6K file should therefore take 1 second to be transferred with a modem operating at 28.8K.

There are several overheads. Additional data has to be sent and received as the modems talk to each other. Whole blocks of data may be lost as the modems attempt to step up the speed but fail. Probably no more than a 3K file will actually be transferred in a second.

So, if your page is going to display in less than ten seconds, how large can it be. At 3K a second it needs to be less than 30K. To display the page completely this has

to include all the graphics as well. You can get a lot of text on a 30K page. With careful optimising 30K can represent a reasonable amount of graphic content as well. This limit doesn't mean bare pictureless pages by any means.

If you start with a text only version of a page you will find that it loads like lightning. Staying under a ten second load tine you will generally have over 20K available for images – that is a generously sized photo at a presentable quality.

On the other hand, If your page has an overhead of java effects, logos, background images and border graphics you will only be able to include a small, low resolution version of the same image.