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further reading

www.pr-squared.com – the blog from Shift Communications, a PR firm that is leading the way in social media

www.edelman.com/speak_up/blog/ - a blog from Richard Edelman of Edelman PR – see how a large player in the industry tackles the changing world of PR

notetaker.typepad.com/cgm/ - Pete Blackshaw's thoughts on all things ORM, CGM and PR are essential reading for any online marketer

12. web site development and design

What's inside: The chapter begins with **introduction** to the concepts of web development and design, going right into **how it works**, with a break for **key terms and concepts**. We look at three crucial elements of web sites: **usability**, **search engine visibility**, and **aesthetic design**. **Landing pages** are touched on, followed by the **pros and cons**, a **summary** and the importance of web site development and design in **the bigger picture** of eMarketing.

introduction

Web development and design are at the heart of successful eMarketing, yet many marketers do not understand the importance of laying solid foundations here. Like building a house, solid foundations are key to stability, longevity and even scalability. Developing a web site involves more than choosing colours and header images.

While it is tempting to focus on the design aesthetics of web sites, and eye-catching web sites can be converting web sites, it is important to remember that a web site is a marketing tool which should be increasing revenue for the company. Web sites should be built to serve the needs of the user. A web site is not something that users stare at – navigation usually requires action and interaction from the web visitor. If the user's needs are served, the web site will be more likely to enable the company to achieve their goals.

While designers tend to talk about vision and can find conventions constraining, users of web sites like conventions. They like web sites that just work, without any thinking on their behalf.

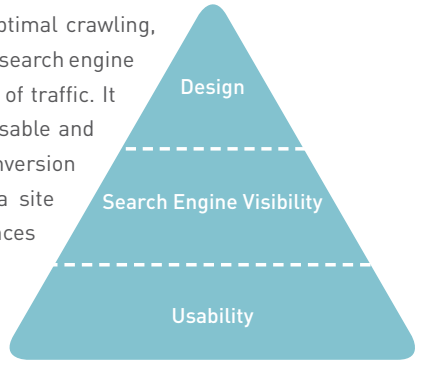
how it works

Usability is the number one element that needs to be considered when developing a site. Search engine visibility is the second most important factor. No one can negate the importance that search engines play in online marketing – and if their spiders cannot find a site, it is almost certain that potential customers won't either. (Bear in mind that there are some web sites which are designed to be found in other ways – the importance of search traffic needs to be determined before the web site is built.) Aesthetic design is now the least important factor – but that certainly doesn't mean that sites need to be so ugly that they turn visitors into stone. It just means that design needs to be hinged on usability and search engine visibility rather than vice versa. Web sites can still be gorgeous; they just need to fulfil other goals as well - the key here is usability and conversion orientated design.

note

"Design" can refer to the structural design of a web site – which is fundamental – or to the aesthetic presentation of a web site. We'll use design to refer to aesthetic presentation.

While it is critical that a site is built for optimal crawling, indexing and ranking by search engines (its search engine visibility), the site also needs to be worthy of traffic. It needs to be built for users. It should be usable and accessible with great content and conversion oriented design. Fortunately, optimising a site for usability and accessibility usually enhances search engine friendliness.



key terms and concepts

Above the fold All the content that can be seen on a screen without scrolling down.

Accessibility The degree to which a web site is available to users with disabilities or technical limitations.

Alt tag Textual information that is displayed if an image cannot be displayed; used by search engines to determine what an image is.

Breadcrumb links Links, usually on the top of the page, that indicate where a page is in the hierarchy of the web site.

Client-side Operations that take place before information is sent to the server.

CMS Content Management System - a system that is used for updating content of a web site.

Common page elements Items which appear on every page of a web site.

CSS Cascading Style Sheets - an approach to web design that aims for lightweight code and standards compliant web sites.

DOM Document Object Model - a web standards approach to representing HTML and XML documents as objects.

Dynamic parameter The elements of a URL that are dynamically generated.

Flash A proprietary technology used to show video and animation; can be bandwidth heavy and unfriendly to search engine spiders.

HTML HyperText Markup Language - the code that is used to write most web sites.

Information architecture The layout and structure of a web site, which should be according to information hierarchy and categories.

Meta data Information that can be entered about a web page and the elements on it that provide context and relevancy information to search engines; these used to be an important ranking factor.

Navigation How a web user moves through a web site, and the elements that assist the user.

Nofollow link Nofollow is an attribute of a hyperlink, indicating to search engines that the link is not endorsed by the web site.

Open source Unlike proprietary software, open source software makes the source code available so that other developers can build applications for the software, or even improve on the software.

Robots Exclusion Protocol A protocol used to indicate to search engine robots which pages should not be indexed.

SERP Search engine results page - what you see when you use a search engine.

Server-side Operations that take place on the server.

Sitemap On a web site, a page that links to every other page in the web site, and displays these links organised according to the information hierarchy.

URL Universal resource locator - the web address is unique to every page on the Internet.

Usability The measure of a web site's ability to accomplish the goals of the user.

W3C World Wide Web Consortium which oversees the Web Standards project.

XML eXtensible Markup Language - a standard used for creating structured documents.

usability

When Steve Krug wrote his excellent web usability book, he aptly called it "Don't Make Me Think!". Designing a site for best usability means that users don't have to figure out what to do; they are just able to do it.

note

Common page elements are those elements which are on every page of the web site. These can include main navigation, a search box, a link to the home page and sign up forms.

Use **standard conventions**, such as links that are distinct (blue and underlined is standard), menus top or left and the logo in the top left hand corner. Search boxes are usually on the top of the page, and should use standard wording such as "search" on buttons. Following standards for important elements that are familiar to web users means that they know immediately where to look for or how to use them. Important elements (such as menus, logos, colours and layout) should be distinct, easy to find and consistent throughout the web site.

The **information architecture** of a site is crucial to usability. Topics and categorisation should flow from broad to narrow, and should be built around users' needs and not company structure. An intuitively designed structure will guide the user to their goals.

The **sitemap** should be available from every page, and should clearly show the information architecture of the web site. Dynamic sitemaps can be employed so that the sitemap is updated automatically as information is added to the web site.

As well as carefully thought out information architecture, the **navigation** should guide users easily through both top-level and deeper pages. Navigation should also let the user know where they are in the site (especially as not all users arrive via the home page!). Breadcrumb links, clear page titles and URLs and menu changes all help to show the user where she is.

VisitBritain.com uses breadcrumb links and menu changes so that the user knows where they are in the web site.

Accessibility makes web sites easy to use and easy to scale. In some countries, accessibility is a legal requirement of government web sites. Some key points of accessibility include the following:

- Ensuring that the web site and all its functions are compatible across a range of browsers, including text only and mobile browsers.
- Make sure that the web site is functional to users who might have a disability. Some ways of doing so include the easy increasing or decreasing of text size and using meaningful descriptive tags in the code for when the site is accessed through a screen reader.
- Not designing for high bandwidth users only, but instead making sure that low bandwidth users do not have to wait for heavy page loads to access your web site (unless you have a good marketing reason for keeping those users out!).
- Having a search box (which works!) available.

note

Just like in Hansel and Gretel, breadcrumb links help to show the user the path they have taken in the web site. Unlike the fairy story, these ones shouldn't disappear as you navigate through the web site.

Content needs to be written so that users can grab the information they need in as little time as possible. Text can be made more easily readable by:

- Highlighting or making bold key phrases and words
- Using bulleted lists
- Using paragraphs to break up information
- Using descriptive and distinct headings

On the page, use an inverted pyramid style, or newspaper style, for your copy. The bulk of the information should be at the top of the page, to make for easy scanning.

There are some key "don'ts" when it comes to building a user-friendly web site:

- Never resize windows or launch the site in a pop-up.
- Don't use splash pages.
- Never build a site entirely in Flash – most search engine spiders cannot even crawl Flash sites.
- Don't distract users with "Christmas Trees" (blinking images, flashing lights, automatic sound, scrolling text, unusual fonts, etc).

Usability and accessibility guidelines are useful for checking that all elements have been dealt with. MIT Information Services and Technology provides a usability checklist online at: web.mit.edu/is/usability/usability-guidelines.html

On the next page is a copy of some of the items on the MIT checklist. Use it see how your favourite web site measures up.

discussion

Scaling and scalability – why is it important that web sites can scale?

Navigation	Rating	Explanation for Rating
Current location within the site is shown clearly		
Link to the site's main page is clearly identified		
Major/important parts of the site are directly accessible from the main page		
Site map is provided for a large, complex site		
Easy to use search function is provided, as needed		
Language and Content	**Rating**	**Explanation for Rating**
Important information and tasks are given prominence		
Information of low relevance or rarely used information is not included		
Related information or tasks are grouped: - on the same page or menu - in the same area within a page		
Language is simple, without jargon		
Paragraphs are brief		
Links are concise, expressive, and visible--not buried in text		
Terms are defined		
Architectural and Visual Clarity	**Rating**	**Explanation for Rating**
Site is organized from the user's perspective		
Site is easily scannable for organization and meaning		
Site design and layout is straightforward and concise		
White space is sufficient; pages are not too dense		
Unnecessary animation is avoided		
Colors used for visited and unvisited links are easily seen and understood		

Some of the usability guidelines from the MIT checklist.

search engine visibility

Search engine traffic is vital to a web site; without it, chances are the site will never fulfil its marketing functions. It essential that the search engines can see the entire publicly visible web site, index it fully and consider it relevant for its chosen keywords.

Search engine optimisation has its own chapter in this textbook, but here are the key considerations when it comes to web development and design.

labelling things correctly: URLs, alt tags, title tags and meta data

URLs, alt tags, title tags and meta data all describe a web site and its pages to both search engine spiders and people. (And don't worry; these words are all described to you below!) Chances are, clear descriptive use of these elements will appeal to both.

URLs

URLs should be as brief and descriptive as possible. This may mean that URLs require server side rewriting so as to cope with dynamic parameters in URLs. Does that sound a little heavy? The examples below should make this clearer:

Comparison of URLs for Cube World, a toy for sale on both sites:

Firebox.com - www.firebox.com/index.html?dir=firebox&action=product&pid=1201

Gizoo.co.uk - www.gizoo.co.uk/Products/toysgames/Interactive/CubeWorld2.htm

The first example has dynamic parameters – these are shown by the question mark and the ampersand – and use categories that make sense to the database (e.g. pid=1201), but they make little sense to the user.

The second example is far more user friendly, and clearly indicates where in the site the user is. You even start getting a good idea of the architecture of the web site from just one URL!

More than two dynamic parameters in a URL increase the risk that the URL may not be spidered. The search engine would not even index the content on that page.

Lastly, well written URLs can make great anchor text. If another site is linking to yours and they use just the URL, the search engine will do a better job of knowing what the page is about if you have a descriptive URL.

note

Dynamic parameters are question marks (?) and ampersands (&).

Alt tags

Have you ever waited for a page to load, and seen little boxes of writing where the images should be? Sometimes they say things like "topimg.jpg", and sometimes they are much clearer and you have "Cocktails at sunset at Camps Bay".

Since search engines read text, not images, descriptive tags are the only way to tell them what the images are, but these are still essentially for users. Text readers for browsers will also read out these tags to tell the user what is there. Meaningful descriptions certainly sound a lot better than "image1", "image2", "image3".

Title attribute

Just as you can have the alt tag on an image HTML element, you can have a title attribute on almost any HTML element - most commonly on a link. This is the text that is seen when a user hovers over the element with their mouse pointer. It used to describe the element, or what the link is about. As this is text, it will also be read by search engine spiders.

Title tags

Title tags, what appears on the top bar of your browser, are used by search engines to determine the content of that page. They are also often used by search engines as the link text on the search engines results page, so targeted title tags help to drive click-through rates. Title tags should be clear and concise (it's a general rule of thumb that all tags be clear and concise, you'll find). Title tags are also used when bookmarking a web page.

The title tag appears in the browser and on the SERP, and the meta description can apper on th SERP.

Meta tags

Meta tags are where the developer can fill in information about a web page. These tags are not normally seen by users. If you right click on a page in a browser and select "view source", you should see a list of entries for **<meta name=**

```
<meta name="description" content="Download SearchStatus, a fantastic new tool developed
                specifically for the specialised needs of search engine marketers." />
<meta name="keywords" content="searchstatus mozilla firefox information toolbar extension
            search google alexa queries page rank yahoo! msn links engine marketers" />
```

These are the meta data. In the past, the meta tags were used extensively by search engine spiders, but since so many people used this to try to manipulate search results, they are now less important. Meta data now act to provide context and relevancy rather than higher rankings. However, the meta tag called "description" often appears on the search engine results page (SERP) as the snippet of text to describe the web page being linked to. This is illustrated in the image above. If the description is accurate, well-written and relevant to the searcher's query, these descriptions are more likely to be used by the search engine. And if it meets all those criteria, it also means the link is more likely to be clicked on by the searcher.

search engine optimised copy

The chapters on online copywriting and search engine optimisation provide details on writing copy for online use and for SEO benefit. When it comes to web development, the copy that is shown on the web page needs to be kept separate from the code that tells the browser how to display the web page. This means that the search engine spider can discern easily between what is content to be read (and hence scanned by the spider) and what are instructions to the browser. CSS (cascading style sheets) can take care of that, and is covered further in this chapter.

The following text styles cannot be indexed by search engines:

- Text embedded in a Java Application or a Macromedia Flash File
- Text in an image file (that's why you need descriptive alt tags and title attributes)
- Text only accessible after submitting a form, logging in, etc.

If the search engine cannot see the text on the page, it means that they cannot spider and index that page.

note

If an XML file is used for the content in a Macromedia Flash File, then the content can be easily read by search engine spiders.

information architecture

Well organised information is as vital for search engines as it is for users. An effective link structure will provide benefits to search rankings, and helps to ensure that a search engine indexes every page of your site.

Make use of a sitemap, linked to and from every other page in the site. The search engine spiders follow the links on a page, and this way they will be able to index the whole site. A well planned sitemap will also ensure that every page on the site is within a few clicks of the home page.

There are two sitemaps that can be used: an HTML sitemap which a visitor to the web site can see, use and make sense of and an XML sitemap which contains additional information for the search engine spiders. An XML sitemap can be submitted to search engines to promote full and regular indexing. Again, a dynamically generated sitemap will update automatically when content is added.

Using a category structure that flows from broad to narrow also indicates to search engines that your site is highly relevant, and covers a topic in-depth.

canonical issues: there can be only one

note

301 re-direct? It sounds like it's getting tricky again! You can get more detail here: www.gottaquirk.com/post/1066/setting-up-301-redirects.

Have you noticed that sometimes several URLs can all give you the same web page? For example:

http://www.websitename.com
http://websitename.com
http://www.websitename.com/index.html

All the above can be used for the same home page of a web site. However, search engines see these as three separate pages with duplicate content. Search engines look for unique documents and content, and when duplicates are encountered, a search engine will select one as canonical, and display that page in the SERPs. However, it will also dish out a lower rank to that page, and all its copies. Any value is diluted by having multiple versions.

Lazy webmasters sometimes forget to put any kind of redirect in place, meaning that http://websitename.com doesn't exist while http://www.websitename.com does. This is termed "Lame-Ass Syndrome" (LAS) by Quirk, a fitting moniker.

Having multiple pages with the same content, however that came about, hurts the web site's search engine rankings. There is a solution: 301 re-directs can be used to point all versions to a single, canonical version.

robots.txt

A robots.txt file restricts a search engine spider from crawling and indexing certain pages of a web site by giving instructions to the search engine spider, or bot. This is called the Robots Exclusion Protocol. So, if there are pages or directories on a web site that should not appear in the SERPs, the robots.txt file should be used to indicate this to search engines.

If a search engine robot wants to crawl a web site URL, e.g. http://www.web sitename.com/welcome.html it will first check for http://www.web sitename.com/robots.txt

Visiting the second URL will show a text file with:

```
User-agent: *
Disallow: /
```

Here, `User-agent: *` means that the instruction is for all bots. If the instruction is to specific bots, it should be identified here. The `Disallow: /` is an instruction that no pages of the web site should be indexed. If there are only certain pages or directories that should not be indexed, they should be included here.

discussion

Why do you think web site owners would want to keep search engines out of certain pages, or even whole web sites?

For example, if there is both an HTML and a PDF version of the same content, the wise web master will instruct search engine bots to index only of the two to avoid being penalised for duplicate content.

The robots.txt file is publicly accessible, so although it does not show restricted content, it can give an idea of the content that a web site owner wants to keep private. A robots.txt file needs to be created for each subdomain.

Here is a robots.txt file with additional information:

```
User-agent: *
Disallow: *.mp3 , *.wmv , *.swf , *.rm ,
Request-rate: 1/5
Crawl-delay: 5
Visit-time: 0001-1300
```

Instructions to search engine robots can also be given in the meta tags. This means that instructions can still be given if you only have access to the meta tags and not to the robots.txt file.

make sure it's not broken

Make sure that both visitors to your web site and search engines can see it all by following these guidelines:

- Check for **broken links** – anything that you click that gives an error should be considered broken and in need of fixing.
- Validate your **HTML and CSS** in accordance with W3C guidelines.
- Make sure all **forms and applications** work as they ought to.
- Keep **file size** as small as possible and never greater than 150K for a page. It ensures a faster download speed for users, and means that the content can be fully cached by the search engines.

design

With the foundations of usability and search engine visibility in mind, it is time to turn to making it all presentable: the design of the web site.

Looks may not matter to search engines, but they go a long to assuring visitors of your credibility, and of turning them into customers.

Every web site needs to be designed with clear goals (or conversions) in mind. Conversions take many forms and may include the following:

- Sale – where the user purchases a product online using their credit card
- Lead – where the user submits contact details and asks for more information
- Sign up – where the user opts in for email marketing newsletters
- Download – where the user downloads a file from the site

Before designing a web site, research your audience and competitors to determine expectations and common elements to your industry. Mock up every layer of interaction. This means that before any coding begins, there is clear map of how the web site should work. It's all about foundations.

design to establish credibility

Here are some of the cues that visitors use to determine the credibility of a web site:

- Prominent phone numbers and addresses above the fold – it assures the visitor that there is a real person behind the web site, and that they are in easy reach.
- Informative, and personal, "about us" - your customers want to see the inner workings of a company and are especially interested in learning more about the head honchos. Include employee pictures and/or profiles. It puts a face to an organisation.
- Feature genuine testimonials on each page – this is a great way to show potential customers what your current customers have to say about your organisation. Trust is vital and this is one way to encourage it.
- Feature logos of associations / awards - if you belong to any relevant industry associations or have won any awards, feature them. Not only does this go a long way to establish your credibility, but it will show that you're at the top of your game, a notch above the competition.
- Link to credible third party references - this is a way to assert your credibility without tooting your own horn.
- Keep content fresh and updated.
- Ensure that your site is free of errors – spelling and grammar mistakes are exceptionally unprofessional and while the large majority of readers may not pick them up, the one or two who do will question your credibility.
- Include a portfolio of past work.

web site development and design › how it works › design

Design also affects the accessibility of a web site. You need to take into account screen resolutions, as designing for the biggest screen available could leave many of your users scrolling across and down to see the web page. Subtle shading, background colours to text and fancy fonts can also mean that many users cannot even see your web page properly.

Date	Higher	1024x768	800x600	640x480	Unknown
Jan-08	38%	48%	8%	0%	6%
Jan-07	26%	54%	14%	0%	6%
Jan-06	17%	57%	20%	0%	6%
Jan-05	12%	53%	30%	0%	5%
Jan-04	10%	47%	37%	1%	5%
Jan-03	6%	40%	47%	2%	5%
Jan-02	6%	34%	52%	3%	5%
Jan-01	5%	29%	55%	6%	5%
Jan-00	4%	25%	56%	11%	4%

Figures show that screen resolution just keeps getting higher.

Source: www.w3schools.com

discussion

Screens just keep getting bigger, so does that mean that web sites should as well? What about users that never hit the "maximise" button on browser? How effective do you think sales data for laptops is in determining optimal screen resolution?

using CSS

CSS stands for Cascading Style Sheets, defined by W3C as "a simple mechanism for adding style (for example, fonts, colours, spacing) to web documents" (www.w3c.org/Style/css/).

In the early days of the web, designers tended to use tables to lay out content for a web page, and many web sites still do so today. However, different browsers, and even different versions of browsers, all support code differently, resulting in web sites that only work on certain browsers, or bulky code to cope with all the different versions required.

The World Wide Web Consortium (W3C) (www.w3.org) was created in 1994 and since then has been responsible for specifications and guidelines to promote the evolution of the web, while ensuring that web technologies work well together. The Web Standards Project (www.webstandards.org) launched in 1998 and labelled key guidelines as "web standards". Modern browsers should be built to support these standards, which should vastly reduce cross browser compatibility problems, such as web sites displaying differently in different browsers.

Web standards include:

- HTML (HyperText Markup Language)
- CSS (Cascading Style Sheets)
- XML (eXtensible Markup Language
- XHTML (eXtensible HyperText Markup Language)
- DOM (Document Object Model)

CSS is standard layout language. It controls colours, typography and the size and placement of elements on a web page. Previously, web developers have had to create instructions for every page in a web site. With CSS, a single file can control the appearance of an entire site.

CSS allows designers and developers to separate presentation from content. This has several key benefits:

- Sites are easier to maintain and update, and are more accessible
- Content may be updated easily by someone who is not a web designer or developer
- Global changes can be applied quickly and easily

CSS can also

- Reduce bandwidth and page loading times
- Increase cross-browser compatibility

To see CSS in action, visit www.csszengarden.com where you can make a single HTML page look very different, depending on which one of the many designer-contributed style sheets you apply to it.

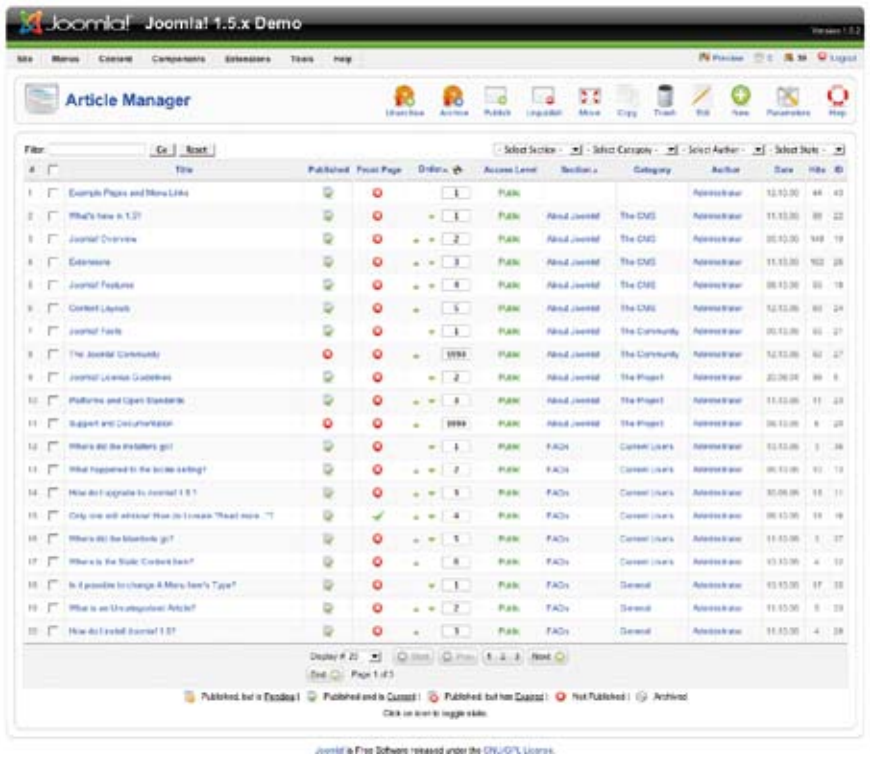
using a CMS

CMS stands for Content Management System. As the name implies, a CMS is used to manage the content of a web site. If a site is updated frequently and if people other than web developers need to update the content of a web site, a CMS is used. Today, many sites are built on a CMS. The CMS can also allow content of a web site to be updated from any location in the world.

A CMS can be built specifically for a web site, and many web development companies build their own CMS which can be used by their clients. A CMS can also be bought pre-built, and there are many open source pre-built CMS available, some of which are free.

A CMS should be selected with the goals and functions of the web site in mind. A CMS needs to be able to scale along with the web site and business that it supports, and not the other way round!

Of course, the CMS selected should result in a web site that is search engine friendly.



Joomla! is an open source CMS. Above you can see how the CMS allows you to manage the articles on the web site.

Here are some key features to look out for when selecting or building a CMS:

- Meta and Title Tag customisation: the CMS should allow you to enter your own meta tags for each page, as well as allow full customisation of title tags for each page.
- HTML tag customisation: the CMS should allow for full customisation of title tags, such as nofollow links.
- URLs: instead of using dynamic parameters, the CMS should allow for server-side rewriting of URLs. It should allow for the creation of URLs that are:
  - static
  - rewritable
  - keyword rich
- Customisable navigation: a good CMS will allow flexibility when it comes to creating the information architecture for a web site. For the purposes of adding additional content for search engines, a CMS should not require that all content pages be linked to from the home page navigation. This allows content to be added for SEO purposes, without adding it to the main navigation.

note

See the chapter on search engine optimisation for an explanation of nofollow links.

- 301 redirect functionality: it is imperative that a CMS offers the ability to put in place 301 redirects to prevent penalisation for duplicate content on different URLs.
- Customisable image naming and alt tags for images: a good CMS will allow you to create custom alt tags and title attributes.
- Robots.txt management: ensure you are able to customise the robots.txt to your needs, or that this can at least be managed using the meta tags.
- Searching of content: make sure you are able to include a useful site search.

Be aware when building clean, descriptive and dynamic URLs from CMS content. Should you use a news heading ("Storm" in this example) as part of your URL (http://www.web_sitename.com/cape/storm) and someone changes the heading to "Tornado" (http://www.site.com/cape/tornado), this will alter the URL and the search engines will index this as a new page, but with the same content as the URL which had the old heading. Bear this in mind before adding dynamic parameters to your URLs.

Finally, using a CMS system that supports standards compliant HTML and CSS is very important - as without it inconsistencies may be rendered across various browsers. It also ensures faster loading time and reduced bandwidth, makes mark-up easier to maintain, supports SEO efforts and ensures that every single visitor to a web site, no matter what browser they are using, will be able to see everything on the site.

technical considerations

As a whole technology should act only as an enabler. It should never be a site's main focus. Here are some technical considerations vital for a good web site:

Proprietary vs. open source: an important consideration when building a new site, and all avenues should be explored. Open source software is fully customisable and benefits from a large developer community. Propriety software usually includes support in its price.

URL rewriting: it is vital that important URLs in your site are indexable by the search engines. Ensure that URL rewriting is enabled according to the guidelines in this chapter. URL rewriting should be able to handle extra dynamic parameters that might be added by search engines for tracking purposes.

GZIP compression: this helps to speed up download times of a web page, improving user experience.

Server-side form validation: form validation is the process whereby the data entered into a form is verified in order to meet certain preset conditions (e.g. ensuring that the name and email address fields are filled in).

Client-side validation relies on JavaScript, which is not necessarily available to all visitors. Client-side validation can alert a visitor to an incorrectly filled in form most quickly, but server-side validation is the most accurate. It is also important to have a tool to collect all of the failed tests and present appropriate error messages neatly above the form the user is trying to complete. This will ensure that correctly entered data is not lost, but repopulated in the form to save time and reduce frustration.

International character support: the Internet has afforded the opportunity to conduct business globally, but this means that web sites need to make provision for non-English visitors. It is advisable to support international characters via UTF-8 encoding; both on the web site itself and in the form data submitted to it.

Search-friendly sessions: sessions can be used to recognise individual visitors on a web site, useful for click-path analysis. Cookies can be used to maintain sessions, but URL rewriting can be used to compensate for users who not have cookies activated. This means that as visitors move through a web site, their session information is stored in a dynamically generated web address.

discussion

Why does URL rewriting create a moving target for a search engine spider?

Search engine spiders do not support cookies, so many web sites will attempt URL rewriting to maintain the session as the spider crawls the web site. However, these URLs are not liked by search engine spiders (as they appear to create a moving target for the robot) and can hinder crawling and indexing. The work-around: use technology to detect if a visitor to the site is a person or a robot, and do not rewrite URLs for the search engine robots.

Auto generated human readable and XML sitemaps: sitemaps are exceptionally important, both to visitors and to search engines. Technology can be implemented that automatically generates and updates both the human readable and XML sitemaps, ensuring spiders can find new content.

RSS feed generation: Really Simple Syndication (RSS) is an absolute necessity. With all the millions of web and blog sites in existence web users can no longer afford to spend time browsing their favourite sites to see if new content has been added. By enabling RSS feeds on certain sections on the site, especially those that are frequently updated, users will have the content delivered directly to them. Visitors should be able to pick and choose the sections they like to get updates from via a feed.

landing pages: bespoke parts of the whole

A landing page is the page users are directed to from any campaign designed to drive traffic to a specific URL. The traffic to a landing page could be from a banner or PPC

ad, an email, a print ad, TV or radio spot or from direct marketing. Users are being sent there for a very specific reason:

- Enter a competition (lead)
- Buy a product (sale)
- Subscribe to a newsletter (sign-up)

As far as landing pages go, first impressions really do count. They need to capture the user immediately and make them want to complete the desired action. Users who land on these pages make the decision to complete the desired action based on two criteria:

- Whether the page looks complicated or time consuming
- Whether it is relevant to their needs

Effective design and benefit statements can help users to make the decision to complete the desired action.

guidelines for successful landing pages

Focus the page on a single call to action. These are purpose built, purpose driven pages and extraneous information should be avoided.

The landing page does not need to carry the same navigation of the web site, and can look slightly different (though a large deviation in style is not advised). The aim is to keep users on a path to the goal.

Landing pages can detract from SEO efforts, as there might be many similar landing pages created. Use the robots.txt file to keep search engine spiders out.

pros and cons

There are no cons to designing a web site for your users first and foremost. It can require some creative thinking when it comes to ensuring that wacky ideas are accessible and usable, but the benefits of taking the time to ensure that web sites are coded according to best practice will show in the longevity of the web site.

Beautiful web sites do not need to be sacrificed for standards compliancy.

summary

While looks are important (and who ever said they weren't?), the foundations of a successful web site are:

- Usability and accessibility
- Search engine visibility

Web sites should be built for users first and foremost. The development and design of a web site should ensure that all necessary content can be accessed by search engines.

Web sites should be designed and developed for best use by both people and search engines.

Key considerations include:

- Well thought out information architecture and clear navigation
- Standards compliant HTML and functionality that works across all browsers
- Descriptive naming of elements so that web sites make sense without images and when accessed by text reading browsers

Design should enhance user experience and guide a visitor seamlessly through a web site, as opposed to distracting visitors from their goals.

the bigger picture

This chapter may be towards the end of the book, but web development and design can be seen as the thread that holds eMarketing together. After all, web sites are the first thing we think of when think of all things "Internet"!

Whatever campaign is being run, there is no doubt that it will involve a web site. The fundamentals of web site development and design – particularly designing for users first and foremost – should form the foundation of any campaign.

With the crucial role that search engines play in the way that people access the Internet and visit web sites, web development and design goes hand in hand with SEO. And of course, campaigns such as PPC campaigns, email marketing campaigns and even affiliate campaigns often require custom landing pages. That's the web design jumping into the mix again.

Web site owners want their web site to be talked about, and linked to, for all the right reasons. Sometimes the best way to know what parts of your web site are and are not working is to listen to the online chatter. That's ORM stepping into the mix.

Successful web site development and design is all about foundations, and the resulting web site usually forms the foundation of any eMarketing to follow. Make sure you understand your users' needs, and you're building on a strong base.

Almost all eMarketing is designed to get users to a web site where they convert into customers – so web development really is at the centre of all your eMarketing activities.

case study: Wicked Uncle

Wicked Uncle (www.wickeduncle.com) had just launched their new web site (and business), when they realised that their web site was not easy to use. The premise of their service is easy, and quick, gift buying of children's presents, and the layout of their web site was a hindrance. Even though they had just launched, a web site redevelopment was in order.

The aim of the redevelopment was to make a gift buyable in under a minute. As well as this, the new web site would also allow Wicked Uncle to build up a database of users so that they could start one to one marketing to a database of subscribers. The look and feel of the first web site was maintained, but the web site was restructured to be more usable, and to make the content more available to search engines.

The site was previously built to be 800 x 600, which is a resolution used by only 7% of the target market. The new web site was built in 1024 x 768, which not only allowed more room but is also much better suited to the target market. More than 92% of the target UK market has high resolution monitors.

On the product pages, all product images were increased in size, and more images were included so that web users could see the product from a variety of angles. Gifts for boys and gifts for girls were colour-coded to ensure easy navigation. The helpline was prominently displayed on each page, as was an easy add to cart button. Pertinent information showing whether the item was in stock, and how long it would take to ship, was also easily available.

A birthday reminder tool was implemented on the web site. When a user registers with Wicked Uncle and registers a child's age they get yearly birthday reminders of the birthday coming up. This has been very successful and has built up a database of email addresses – from zero to 15,000 in less than a year!

The shopping process is exceptionally smooth, with functionality being carefully thought out. Within the process, the user is able to register different children with their own delivery address. The colours used in the shopping cart complement the web site, but are unique to the cart, so it stands out. There is always a clear indication of what the next step in the check-out process is.

Lastly, for those shoppers in a hurry, the web site features a 1-Minute Gift Finder. With a new web site that is easy to use, Wicked Uncle was able to run campaigns to drive targeted traffic to the web site.

case study questions

1. Selling gifts online can be difficult as the shopper cannot see the actual product they are buying. What are some ways that the web site design aims to overcome this?
2. How does the navigation solve users' needs?
3. How is the web site able to be used for a number of eMarketing activities?

chapter questions

1. Why is it fundamental to build web sites for users' needs first? What are some ways that user requirements inform the web development and design process?
2. Visit a retail web site, such as www.amazon.com and a news web site, such as www.news.bbc.co.uk, and identify the common page elements of each. What elements are common to both web sites?
3. What are the differences between an HTML site map and an XML site map?
4. A picture may be worth a thousand words to web site visitors, but can be fairly meaningless to search engine spiders. How can this be combated by webmasters?

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Zeldman, J (2006) *Designing with Web Standards (2nd Edition)*, New Riders, Berkeley

further reading

Steve Krug's *Don't Make Me Think!* and Jeffrey Zeldman's *Designing with Web Standards* will make you look at web sites and web design in a completely different way, and both will give you a solid background in building web sites that work.

www.alistapart.com
– a web site for people that make web sites, A List Apart has regular articles from web designers and developers on building user friendly, standards compliant web sites

www.smashingmagazine.com
– Smashing Magazine posts regular in depth articles focused on design

What's inside: An **introduction** to online copywriting reveals that content is king, and gives you the **key terms and concepts** needed for this chapter. **How it works** discusses personas and the **importance of layout** and some **HTML basics**. Writing online, you will need to look at **short copy**, which includes the all important **call to action**, **features** and **benefits,** and **writing PPC adverts**. **Long copy** still requires attention to the elements that make sure you are getting read, and we look at the all important **SEO copywriting**. The **Web is full of neologisms and buzz words**, but you'll keep on top of them with our **tools of the trade.**