

WEBSITE ISSUES

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ABSTRACT

The Paper presents the basic concepts for designing good web sites. Sites with different objectives will obviously have different needs. Moreover, individuality and uniqueness of web sites are also valued features. With that in mind, those guidelines are offered as a starting point for developing good web design skills, not as formula that should be followed stickly.

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1. INTRODUCTION

The paper presents the basic concepts and some generally accepted rules of thumb for designing good web sites. Sites with different objectives will obviously have different needs. Moreover, individuality and uniqueness of web sites are also valued features. With that in mind, those guidelines are offered as a starting point for developing good web design skills, not as formula that should be followed point by point.

2. GUIDELINES

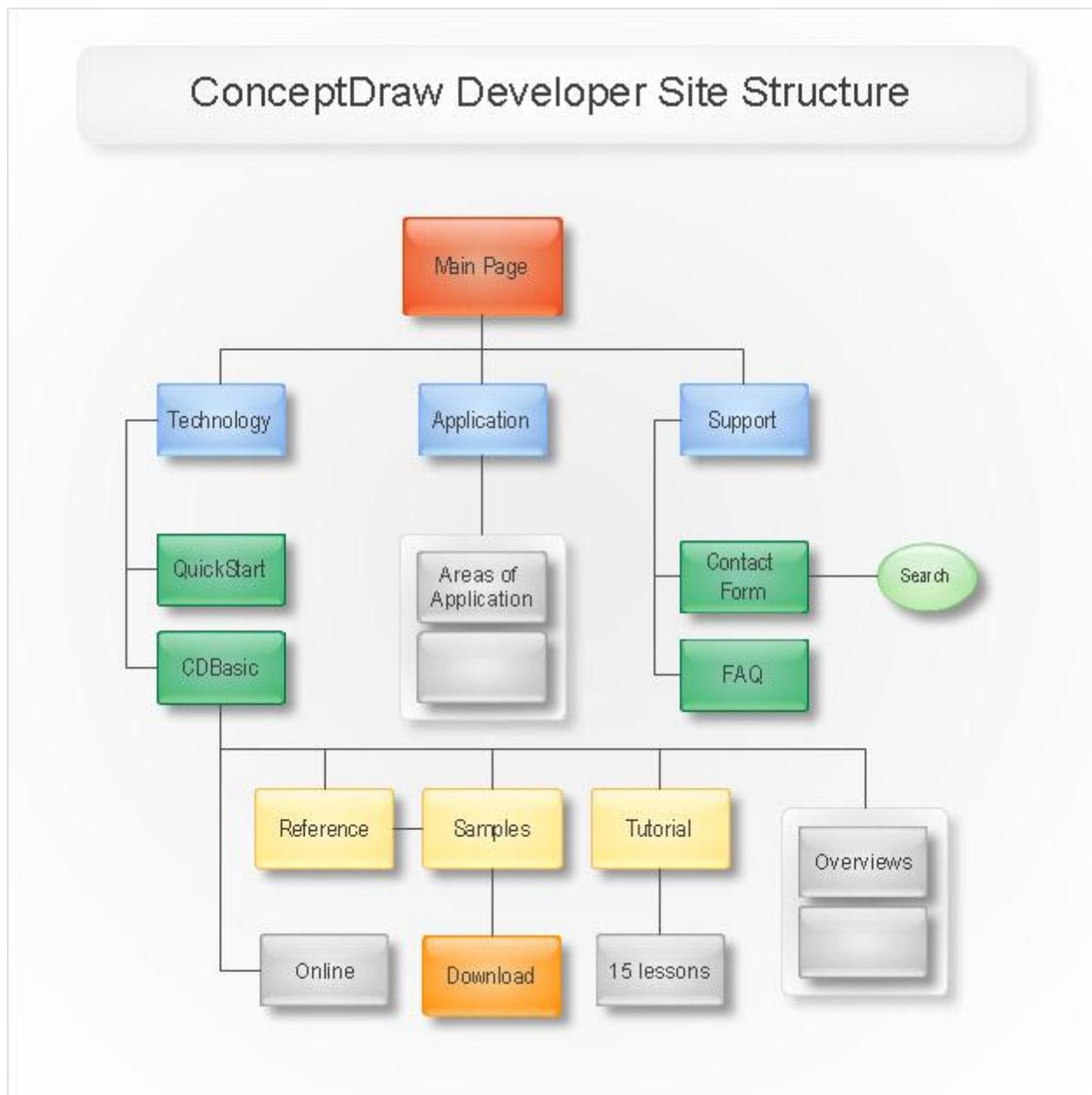
- **Page Loading Efficiency** The temptation to overload a page with graphics should be resisted. A few well-chosen graphics are fine, but too much on a page and the visitor may become frustrated with the required time to load a page, and “click, click” they are off to another site. Frames also increase the loading time, and if the site sells or exchanges advertising space in which banners will appear, these items will also slow down the load time.
- **Simplicity** Avoid clutter on web pages. If the business has a lot of information to convey, organize it well and spread it out over multiple pages guideline is to use about 60 characters per line. Also, avoid long pages that required a lot of scrolling. Again, organizing the material well can preclude excessive scrolling from being necessary.
- **Use The Space Wisely** Do not ramble on; make each statement count. Kernels of information that are succinctly worded and have impact are best.
- **Create A Reason To Return** Once a visitor comes to the site, give them a reason to return. Suggest they bookmark the site-it works!
- **Contd.**Some suggestions for items that may cause the visitor to return: Daily or weekly specials; Daily or weekly updates to the site that are clearly labeled, such as editorials, current events, projects, recipes, etc.;Frequent buyer programs; Contests; and Events, such as hosting a chat session with a guest celebrity or public figure.
- **Framing** A frame is a section of the viewer’s computer screen. A screen can be split into multiple sections that can load different web pages, even those from other sites. The use of frames has its benefits and its drawbacks.
- **Tables And Fonts** Table are useful for providing structure to text that will not be lost due to the size of the visitor’s screen and the size of viewing window, which is affected by viewer’s web browser. Whenever possible, avoid using all uppercase letters as they are more difficult for the eye to follow. The TIMES and HELVETICA fronts for readability on websites.

- **Graphics** can enhance a web site when used properly. Attempt to use images that are no larger than 70k or the load time may annoy visitors.
- **Interlaced Graphics** Images that gradually appear sharper are called interlaced graphics. Not everyone appreciates these pictures, and some people find them annoying.
- **GIF vs. JPEG files** Either format can be used. GIF files are typically more efficient for solid color images, such as logos, or images with large regions of solid color. JPEG formats will typically yield better results for multi-colored images or photographs in terms of best quality for the size.
- **Colors And Contrast** Most web site designers agree that dark text on light background work best. The key is have enough contrast between the text and the background. Some colors work together and some do not; a traditional color wheel is useful for choosing contrasting colors.
- **Purchasing Information** Sites that sell their products/services on-line should clearly post policies in an easily found place regarding these items: Tax rates; Shipping rates; Shipping schedules; Return policy; Privacy of transaction; and Security of data that is transmitted.
- **Tracking** In order to analyze the success or contribution of site, certain data need to be tracked. Some useful information includes: Number of different visitors(not repeat visitors); Number and frequency of repeat visitors; Location of site prior to visit, including the search engine used to locate the site, if applicable; Length of time of visit; Pages visited Items examined by visitors; Domain names of visitors; Country codes of visitors; and Purchase made, if applicable.

3. THE ARCHITECTURE OF WEBSITES

What is website architecture? It's the way your website is "built." The way pages link to each other in a logical manner to make it easy for people visiting your site to find both what they want to find and what you want them to find.

Defining the purposes of your website is vital to avoid 'mission creep' and thus keep costs under control. One of the first nettles to grasp is whether or not you intend to make money out of the website.



The approach taken by many organizations with regard to their website development would seem to indicate that a website is somehow a special case and not subject to the same financial criteria and resource planning as, say, a shop. As an exercise, it can be useful to replace the word website with the word shop during planning and see how your attitude changes, see what you've left out. Consider, for example: "I'm planning the marketing launch of my website" versus "I'm planning the marketing launch of my shop".

The following are typical objectives for a website:

- **Brochure** - showing what you do: goods and services

- **Commerce** - selling what you do
- **CRM** - keeping the customer happy, encouraging return visits In web terms, this is the art of keeping your customers happy whilst having as little as possible to do with them! This is not quite as mean as it sounds: if your business starts 'scaling' up on the web, then you don't want to have to hire in extra resources just to answer simple questions.
- **Decision support** - helping the prospect decide what to buy (this can be for both online and offline sales)
- **Product support** - increase effectiveness and reduce costs of supporting your wares and services
- **Extranet** - ring-fenced area for agents, partners, etc to transact business or run a virtual office
- **Intranets** - typically remote working on centrally held files or updating timesheets of staff working away
- **Reference** - provision of (usually) non-commercial data like technical specifications, statistics or reports
- A combination of the above
- Within each of the above items there is usually a set of sub-objectives.

4. HOW TO ORGANIZE YOUR SITE STRUCTURE AND TEXT CONTENT.

Before starting to build and write the text of your site there are many things to consider. Try to answer these questions or at least think about them and keep them in mind when writing the text. I will cover some of them in more detail further down the page.

Some basic issues to consider...

- **Information Architecture of Your Site.**

The information you provide will help you to define the goals of your site and give me the information I need to create your site both from a design and structural point of view. Doing this basic work in the beginning will improve your site immensely and save time in the long run.

- **What is the purpose of your business/ what does your business do?**
- **What are the goals of the site?** Short term? Long term?
- **Who are the intended audience of your site? Describe a typical viewer of your site?**
- **Age group:**

- **Sex:**
- **Nationality:**
- **Native language:**
- **Religion:**
- **Education/profession:**
- **How will people find your site? Will they be repeat visitors?**
Advertising, search engines, existing customers, other?
- **What other companies have similar businesses to yours? If you know their web site addresses please list them.**
- **How many pages will your site have? What will the overall structure be like?**
- **Home, About Us, Main Topic, Sub-topics, Shopping, Bookings, Site Map, Links, Map, Contact Us.**
- **Will you require new email addresses for this site?**
(yourname@yourwebsitename.com)
- **How many? Who for?**
Do you want the emails from your new yourname@yourwebsitename.com to be forwarded to your current email address? If so what are your current email addresses and what company are they with? What is their web site address?
- **What special features do you want on your site?**
Bulletin boards
Calendar
Password protection
Credit card facilities
PayPal
Newsletter signup
- **Online shopping**
how many products will you offer for sale?
Do you want to accept credit card payments? PayPal etc.?
Do you currently have credit card facilities in your offline business?
Do you need a shopping cart for your site?
- **What is the name of your site? Mysite.com**
If possible the site name should be easy to remember, spell and short in length. .COM extensions are easiest to remember.

- **Hosting**

Do you have any preferences for the hosting company?

- **You can buy your domain name here:**

naturalhealingcenter.com/hosting.html Generally a domain name will cost US\$8.95 a year and you should have it automatically renew each year so you don't forget to renew it and lose your web site name and ranking on the search engines if your website is down.

- **You can get hosting here too:**

naturalhealingcenter.com/hosting.html Most sites will require Deluxe hosting with CGI or ASP as the cheaper hosting only offers 50MB of space. It is US\$8.95 a month. If you buy the wrong kind of hosting you may not be able to have the features you want on your site (bulletin boards etc.) consult with your website designer on the kind of hosting you will need.

- **Keywords**

What keywords do you think people who are looking for a site like your will use?(If you were going to look for services or products your site offers, what words or phrases would you type into search engines such as Google or Yahoo.)

- **Description**

Describe your website in one sentence using many of the keywords (the ones you think are most important and relevant) you have listed above.

- **The Navigation Architecture of Your Site**

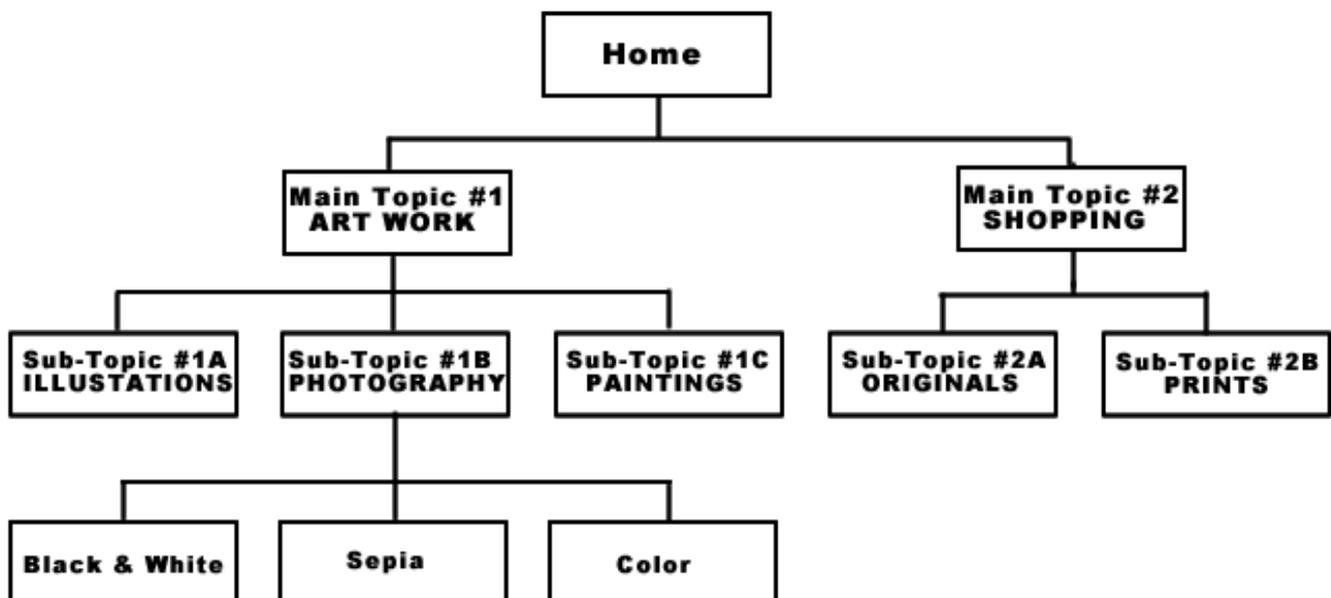
The navigation architecture of your site needs to be decided upon before your site can be built. It is important that people know where they are on your site and don't get lost. A general guide is to try and keep any information no more than 3 clicks away as people get tired of clicking and waiting for pages to load. Some pages which you will probably want to include are listed here:

- **Home** - The home page generally serves as an introduction to your site and a place people can go to if they get lost and need to re-orient themselves. It should be a safe haven for weary, lost web surfers. It is best to call it "home" as most people understand what that means. It is the index page or default page and will be called www.yoursite.com/index.html or www.yoursite.com/default.html if it is written with html code.

- **Main Topics Pages** - Contains main subject of your site.

- **Sub-topics pages** - Contain more detailed information
- **Online Shopping page** - if you are selling something.
- **Map/directions** - A page which contains a map of how to get to your place of business.
- **Bookings** - If bookings are required.
- **Links** - A links page can be places where you add links you are truly interested in. To rank highly in search engines it is important to have other related sites link to your site. Sometimes to get other site to link to your website it is necessary to do reciprocal links.
- **Site Map** - If you have a large site you can add a site map which gives an overview of the entire sites structure and content.
- **About Us** - General information about you or your company.
- **Contact Us** - Your contact details. Address, phone, email etc.
- **Navigation Architecture**
- **Here is a picture of the navigation architecture** - I designed for this site before I built it. This is a one way to design a small site. Notice you can get to every page from every page. And you always know where you are as there is a clear heading at the top of each page and the button in the navbar of the page you are on is bright blue.

Here is example of navigation architecture.



5 BUDGETING:

Website Budget Considerations When creating a website budget at the website planning stage seriously consider your time investment. Following should be considered:

- **Allowance for Building WebPages.** This would cover the cost of hiring a professional or cost of your time invested to make your own web pages.
 1. What part of the website building process can you do yourself?
 2. Is this efficient use of time to save some money?
 3. Would it be more cost effective in the long run to hire someone to do all or part of the work?
- 4. If you are going to build the web pages yourself do you have the knowledge, time and technologies in place to make your own web pages or will you have to invest time and money to acquire the proper skills, software and technologies?
- **Website Content** considers website content creation and management. Website content is the actual words the visitor and search engines see. The website content has to be actual information, not just a bunch of links to other sites or images.
 1. Who will create the initial website content?
 2. Who will handle website content management?
 3. Who will create the website content now and in the future? Yourself or someone else?
 4. Would some kind of content management system make things easier or even be appropriate for your business?
- **Website Graphics** include for quality website graphics required. Don't go overboard on this. Remember website content is important. A site that uses a lot of website graphics will not do well in the search engines.
 1. Do you have graphics suitable for the web already?
 2. Are you going to have to build, convert, purchase or hire someone to build any website graphics required?
 3. Consider the size of the website graphics. These can take up webspace and add to bandwidth costs. Recycle as many as possible throughout the site.
- **Website Advertising** Every business needs an advertising budget. A website planning budget is no different. Now that you have a website, all letterhead, business cards and any promotional items need to have the website address and email on them.

Be sure to include in your website planning budget for new stationary and brochures. How are you planning to advertise the website? If you are going to submit to search engines has the site been optimized properly to maximize results? Search engine optimization is another item to include in the website planning budget.

- **Third Party Features** A website that uses third party features needs to incorporate the costs of these features in the website budget. Even if it is decided to use free services someone still has to manage the features. **What are the costs to use third party services?**
- **Other Website Budget Costs to Consider** There are a few more website budget items to consider:
 - **Do you have to collect sales tax? Who is going to keep track of this and remit it on time?**
 - **Who will do the bookkeeping and taxes?**
 - **Have you selected a web space that can grow with your website?**
 - **What future expansion of the website are you considering?**
 - **Are there some features your target audience really expect?**
 - **Are you going to fulfill the purpose of the website with this budget?**

6 DESIGN ISSUES

Website design has a lot of constraints - notably the shape, size, and resolution and color capabilities of the viewing system. Font options are also severely limited at the present time. The accurate placement of design elements that print media allow is not available on web pages, so there are a series of compromises to be made.

The following list indicates most of the major design considerations:

- **Target market** - what viewing facilities are they likely to have?
- **Base layout** - is there an existing corporate livery to follow?
- **Content** - how often does it change? How will it be managed? Is it date dependent?
- **Databases** - do you have corporate data or reports that need to be presented?
- **Multimedia** - is it appropriate?
- **Accessibility** - what's appropriate to your market and your legal obligations
- **Interactivity** - this frequently requires database support to remember visitor details
- **Search/drill down facilities**

- **Multiple languages** - French, German, Italian, Spanish, Scandinavian, Arabic, Russian, Japanese
- **Locales supported** (eg British, US, Australian or other)
- **Scope** (see above)
- **Security** - particularly for commerce
- **Visitor experience** - speed, ease of navigation
- **Newsletters** - collecting addresses
- **Forums** - creating a community and a reason to revisit
- **Design an effective home page**
- **The important information should fit on one screen, as some users will not bother to scroll the home page.**
- **Design for efficiency**
- **It is important to minimize the download time as most web users have slow connections¹⁸.**
- **Graphics add interest but are slow to load and can impede navigation.**
- **Use the minimum number of colors to reduce the size of graphics.**
- **Use the ALT tag to describe graphics, as many users do not wait for graphics to load.**
- **Use small images, use interlaced images, repeat images where possible.**
- **Make text easy to read and use**
- **Avoid the use of flashing or animation, as users find this very distracting.**
- **Avoid patterned backgrounds, as these make text difficult to read.**
- **Where possible use tables instead of frames – frames can interfere with printing and bookmarking.**
- **Support different browser environments**
- **Test that your pages format correctly using the required browsers and platforms.**
- **Check that pages containing reference information or large amounts of text print correctly on the required browsers, platforms and paper sizes (note that European A4 paper is narrower and longer than US letter size paper²²).**
- **Provide support for text-only browsers**
- **Some users turn off graphics to increase speed, and the visually impaired use text only browsers:**

- **To support text only browsers, use a logical hierarchy of headings, avoid frames and use ALT tags which describe the function of images.**

7. DEFINE THE BUSINESS OBJECTIVES OF THE SITE

- **What are the main purposes of the site?** These could include disseminating information, advertising services, selling products, positioning in the market or demonstrating competency.
- **Who do you want to visit the site,** is it internet or intranet - what are the important user categories and what are their motivations and goals?
- **What type of pages and information will attract users** and meet their needs? e.g. hierarchically structured information, a database, download of software/files, incentives to explore the site.
- **What are the quality and usability goals which can be evaluated?** e.g. to demonstrate superiority of the organizations the competition, appropriateness of the web site to user's needs, professionalism of the web site, percentage of users who can find the information they need, ease with which users can locate information, number of accesses to key pages, percentage of users visiting the site who access key pages.
- **What is the budget for achieving these goals for different parts of the site?**
- **Identify responsibilities for achieving quality and usability** objectives, and estimate the resources and budget for these activities.
- **Define key scenarios of use**
- **Describe specific examples of people accessing the site,** and what they want to achieve. These will help priorities design, and should be the focus for evaluation.
- **Also identify any niche markets** and interests which can be supported by the site without major additional investment (e.g. specialized information, access by users with special needs).

8 SITE STRUCTURE AND CONTENT

A structure which makes sense to the user will often differ from the structure used internally by the data provider. Different user groups may need different interfaces. What information content does the user need at what level of detail? Use terminology familiar to the user.

- **Interview users to establish the users' terminology** and how they categories information.
- **Produce a card** (or sticky note) for each anticipated page for the site, and use card sorting techniques to design an appropriate structure [6].

- **Writing style** People rarely read web pages word by word - they scan pages to find the information they want [7].
 1. Make the text scan able with bulleted lists, highlighted keywords, meaningful headings and short sections of text [8].
 2. Start with the conclusion, then provide the details [8].
 3. Make text concise and objective: avoid marketing exaggeration, subjective claims or boasting [8].
 4. Do not include unnecessary “white space” as this impedes scanning the text [9].
 5. Do not expect users to read large amounts of text on-line: provide one large page for printing or a file to download.

SUPPORT NAVIGATION

- **Help users find their way**[10].
 1. Show users where they are and where they can go.
 2. Use a consistent page layout.
 3. The easiest to navigate information pages have a high density of self-explanatory text links [9].
 4. Minimize the number of clicks needed to reach final content: try to make sure users can get to useful information in no more than four clicks [11].
 5. Users do not mind scrolling pages if necessary, but beware of pages which appear complete on a small screen while hiding important buttons or links just off the bottom.
 6. Provide links on each page to a list of the local contents, a site map and home [11].
 7. On larger sites consider providing a search facility – many users habitually use search rather than exploring a site [9].
 8. Provide a simple interface to the search engine [12] and check that it gives easily understood results. Most current search engines are so poor that their use reduces the likelihood of finding relevant information!
 9. Include navigational buttons at both the top and bottom of the page – this minimizes the need for scrolling.
 10. Use URLs which are meaningful and exclusively lower case – this helps people who have to type them in.
 11. URLs quoted in printed material should be short and simple to type: if necessary use aliases rather than the fullers.

12. Use page titles which make meaningful bookmarks (do not start titles with “Welcome to ...” or use generic titles such as “Contents”).
13. Avoid dead ends – plan that any page could be the first page for users reaching the site from a search engine.

- **Tell users what to expect**

1. . Avoid concise menus: explain what each link contains – so that users can find the right link first time.
2. . Provide link titles [14] – they simplify navigation for users with recent browsers which support this feature.
3. . List the contents of each part of the site as a list of links to the final information, divided into meaningfully titled groups [15].
4. . Provide a site map or overview – this helps users understand the scope of the site.
5. . Distinguish between a contents list for a page (e.g. use a heading “Page contents”), links to other pages, and links to other sites (e.g. using icons for off-site links).
6. . Do not change default link colors and style – otherwise some users may not recognize the links.
7. . Give sizes of files which can be downloaded.

- **Highlight important links**

1. . The wording of links embedded in text should help users scan the contents of a page, and give prominence to links
2. . To key pages. (Highlight the topic - do not use “click here”!)
3. . To keep users on your site, differentiate between on-site and off-site links.

9. EVALUATION METHODS

- **Expert inspection** Use a checklist to inspect pages for conformance with house style (consistency of layout) and with recommendations such as those in this paper.
- **Early mock-ups** Early in design evaluate a partial mock up of the site with representative users performing representative tasks. Use first drafts of screens, either on-line or as color prints.
- **Functional prototypes**
Produce a working version of a representative part of the site, taking account of the design principles and evaluation feedback. Evaluate the working version with representative users performing representative tasks.

10. MANAGEMENT AND MAINTENANCE

Ensure that new pages meet the quality and usability requirements What skills will be required of page developers? Do they have the necessary expertise in the subject domain, HTML, graphic design and usability? Do they need training?

- What will be the criteria for approval of new pages? Is some automated checking possible?
- **Indexing** Help people to find your site by indexing the important topics and names of key people. To facilitate indexing by search engines:
 - Provide search topics using the META tag in the page heading.
 - Include the main search topics in the first few lines of text on the home page.
 - Fill in the submission forms for search engines.
 - Consider using an automated submission tool (e.g.).
- **Maintenance** Plan and review the site structure as it grows, review the user needs, and make sure the site continues to meet the needs.
 1. Monitor feedback from users.
 2. Monitor the words used when searching the site.
 3. Monitor where people first arrive on the site, and support these pages as entry points.
 4. Check for broken links (e.g. using Site Mill or HotMetalPro).
 5. Compare your site to other comparable sites as web browsers and web design evolve.

11. COMMERCE ISSUES:

There are specific issues with commerce that can cause problems. Apart from selling something downloadable like software or reports (which are infinitely available) any other system has to take account of stock either in-house or from a wholesaler. This infers some integration with the stock system assuming there is one and it's not the sole responsibility of George in Stores. Even selling software presents its own issues because a number of people making a simultaneous download of a 25Mb program may have a serious impact on the performance of the server, not just for the visitors doing the downloads, but also for any others visiting the website.

Some of the issues are:

- Shopping systems - product management, price list management, baskets, special offers, affiliate schemes

- Payment handling - credit card, cheque, credit transfer, wire transfer, manual or automatic
- Credit card transactions - merchant ID, AVS (address verification system)
- Secure certificates
- Drop shipping - shipping directly from a wholesaler
- Integration with your existing sales order processing system
- Serial number management (software sales only)
- VAT processing - place of supply, place of delivery considerations, EU issues
- Terms and conditions, copyright, privacy policy and securing 'personal information'

12 LEGAL ISSUES:

There are a variety of legal issues that may relate to your website:

- Minimum information to be provided on websites
- Contact Details must be provided on Websites
- Minimum information to be provided on business emails
- Copyright
- Data Protection
- Opt out or opt in?
- Email Marketing
- Distance Selling and Online Trading
- Cannot make a Charge on Returned Goods
- Trade Mark Keyword Online Advertising
- Disability Accessibility
- Disclaimer

13. SECURITY ISSUES:

Following are the issues related to security to be tackled first:

- **Validation of input and output data**

All data used by the website (from users, other servers, other websites and internal systems) must be validated for type (e.g. numeric, date, String), length (e.g. 200 characters maximum, or a positive integer) and syntax (e.g. product codes begin with 2 letters and are followed by 5 Digits) and business rules

- **Direct data access (and theft)**

If data exists, it can potentially be viewed or extracted. Avoid storing data that you do not need on the website and its database(s) – for Example some data relating to payment cards should never be stored.

- **Data poisoning**

If user's can amend or delete data inappropriately and this is then used to update your internal systems, business information is being lost. This can be hard to detect and it is important that the business rules are examined and enforced to validate data changes to ensure poisoning is not Occurring. If poisoning is not detected until well after it has occurred, it May be impossible to recover the original data.

- **Malicious file execution**

Uploaded files or other data feeds may not be what they seem. Never allow user-supplied input to be used in any file name or path (e.g. URLs or file system references). Uploaded files may also contain a malicious payload so should not be stored in web accessible locations.

- **Authentication and session management**

Websites rely on identifying users to provide access permissions to data and functions. If authentication (verification of identity, registration and logging in), authorization (granting access rights) and session management can be circumvented or altered, a user could access resources they are not allowed to. Beware especially of how password reminders, remember-me, change password, log out and updating account details are handled, how session tokens are used and always have login forms on dedicated and encrypted (SSL) pages.

- **System architecture and configuration**

The information system architecture model should address the sensitivity of data identified during the requirements and specification phase of a website project. This may entail having separate web, application and database servers or involve clustering, load balancing or virtualization. alerting facilities need to be built in to allow audit.

- **Phishing**

Phishing, where users are conned into believing some other entity is or belongs to your own organisation (email messages and websites are the most common combination), is best tackled through user education but the way the website is designed, its architecture and how it

Communicates with users can reduce the risk.

- **Denial of service**

Whilst malicious users might try to swamp the web server with a vast number of requests or actions that degrade its performance (filling up logs, uploading large files, undertaking tasks

that require a lot of memory repeatedly) denial of service attacks include locking out valid user accounts or be caused by coding problems (e.g. memory leaks, resources not being released).

- **System information leakage**

Web servers, errors, staff, partner organisations, search engines and rubbish can all be the source of important information about your website – its technologies, business logic and security methods. An attacker can use such information to their advantage so it is important to avoid system information leakage as far as possible.

- **Error handling**

Exceptions such as user data validation messages, missing pages and server errors should be handled by the code so that a custom page is displayed that does not provide any system information to the user

14 MARKETING AND PROMOTION

Some enterprises lend themselves more readily to search engine promotion than others: ceramic tiles are very difficult to promote because of the wide use of both the words ceramic and tile; a website selling Bewick engravings is going to be much easier to promote, not least because there's a proper noun in there.

Some important considerations are:

- Getting useful traffic to your website - as opposed to inappropriate leads that waste your resources
- Keywords/meta tags - important for some search engines but not the principal one: Google
- Offline promotion - frequently more important than online promotion
- Company livery should incorporate the website and email addresses - unbelievably frequently omitted

15. OPERATIONAL ISSUES

Once the website is up and running there will be costs involved in promoting and maintaining it. Out-of-date websites are a turn-off for visitors and are therefore counterproductive.

Keeping the content of your website fresh may turn into something akin to magazine production where there is a need for continuous input. This requires the content management to be someone's responsibility on a weekly, monthly, quarterly basis as appropriate. In other cases it may just be a question of keeping course data or an events list up-to-date.

Self-managed websites frequently suffer from poor copywriting, spelling and grammar thus leading to lower credibility and business confidence. advantage (or more probably reduce competitive disadvantage) on the other side of the pond. There may be a need for training of staff in website administration - we've tried to make our system as easy as possible.

Website requirements evolve, sometimes quite quickly, so a review process needs to be put in place.

CONCLUSION

Although the research covers all the major issues related to website development but, this certainly isn't an exhaustive list of the items that should be included in building your website . Each situation is different. All we can say is, do your research! Carefully plan your website otherwise it can result in disappointing returns on investment. As it is unlikely to be economic to test the usability of every page, it is important to establish a sound structure and style guide within which new pages can be developed, and for page developers to be aware of the business objectives and intended contexts of use.

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