



Implementing a Web Site

A Management Overview

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1. EXECUTIVE SUMMARY

How important is it for a business to have a web presence? Is a public website a money pit or money maker? There is no definitive answer, however a number of recent surveys of corporate executives indicate that websites can enhance the bottom line. Web sites are easily updateable and dynamic, and can be used as efficient tools of communication, to promote products and services, and to generate revenue.

Here are a number of reasons to consider developing a web site:

- Having a shop or showroom that is open 24 hours a day
- An inexpensive way to advertise to a vast market
- Offer new services
- To enhance a company's image
- To enhance a product's image
- To develop a list of qualified prospects for later follow up
- To encourage site visitors to contact the company
- Stand out from your competitors
- Provide more information than would be possible in a brochure
- Allow your customers to research your product before buying
- Answers to frequently asked questions reduce costs as staff do not have to answer them in person
- Your market is not limited to your geographic location
- Sell products and services - can accept orders and payments online
- Allows customer feedback
- View site statistics that show what interests your customers and who is visiting your site
- Makes business information available
- Release time sensitive materials
- Company newsletters
- As a cost effective method to inform and educate your markets

2. WHY DEVELOP A WEB SITE?

The first step in establishing a presence on the World Wide Web is to determine the reason or purpose for that web site.

Establishing the goal and purpose of your web site facilitates the compilation of content, allowing the design of your site to most effectively match current Internet technologies.

Is the purpose of your website?

- To sell things?
- To provide information?
- To facilitate or enhance name recognition
- To strengthen customer service?

There are many good reasons for building a web page but it is important that your goals are clear. Your objectives should drive the content and the design. Before a web site can be designed and implemented the most important consideration must be made with respect to the content.

It is the job of professional web designers to create the required look and feel, navigation, templates etc. but without your content contribution the site cannot be completed. Many web based projects are seriously delayed because of the failure of the company to submit content.

Once you know exactly what you intend to publish and who the targeted audience will be, the next step is to determine the mood of your website.

- Should the ambience be informal, professional or high tech?
- Will you use graphics, animation or music?
- How will the text be structured and which fonts will be used?
- How will visitors navigate through your site?

Whatever you decide, try to maintain the same theme and conventions throughout your site.

The most important part of your website is the textual content. What you write should add value, be informative, make the visitor want to return, make a purchase or commence a business relationship with your company.

Review your web page objectives and your target audience and make your message suit that audience.

Publishing on the net is different from publishing in a text only format. You are able to take advantage of multimedia capabilities such as photos, graphics, music and video.

However there are a number of considerations when utilizing multimedia files on your site. Graphics, for example are often large files that take time to download. Recent surveys have indicated that most site visitors won't wait more than five seconds for a web page to load.

Developing an effective website requires thoughtful planning. Understanding the entire process before you begin will save you time and money as the project progresses. Although sites range from just a few pages to very complex corporate sites with hundreds or thousands of pages and sophisticated interactive features, the development process remains basically the same.

There are six basic stages: planning, content development, graphic design, programming and building the site, marketing, and promotion and maintenance. Depending on your areas of expertise, you may need assistance for some or all phases of your project.

Think like a home builder: first, develop a good blueprint, perhaps with the help of an architect; then hire the appropriate contractors for the various tasks.

Saving money is as important as making it. Your website can do that by streamlining costs for customer service, ordering, printing and postage, among other things. According to a 2004 Forester Research Report, online orders are 6% more profitable than orders placed over the phone. If you don't have to send out a brochure or catalogue, how much will that save you?

Planning

Your first task, before investing any time or money, should be to determine the primary reason you want to be on the Internet. You must determine who the audience is for your site and this is critical, because many design and content decisions depend on this. The content, as well as the scope and quality of design should be driven by the answers to these questions.

Does your target audience access the Net from work, school or home? How fast is their Internet connection? Do they want to be informed or entertained? Make sure you know the answers to these types of questions from the outset.

Your purpose may be as general as to let the world know you exist by posting the online equivalent of a brochure, display ad or newsletter. Or it may be as specific as increasing sales by selling your products online. Obviously, the latter increases the scope of work.

Be sure that your development objectives are consistent with the resources you have available to create and maintain a site. If not, reassess your short-term and long-term objectives, and adjust them accordingly.

The next step is to create a profile of your target audience and design a site that's responsive to their needs and interests. Select content by thinking from the perspective of your visitors.

Your site should be well organised, both for the benefit of your visitors and to make it easier to maintain. Map out your site in storyboard or schematic form, perhaps as a flow chart.

Consider using index cards to represent the prospective web pages. You can rearrange them very quickly. It really helps to have some way to visualize the structure, whether you're with colleagues or web technology professionals.

A website is a perpetual work-in-progress and a lot of websites change fairly often because the technology makes electronic publishing rapid and relatively inexpensive. A well planned site simplifies this process. New content and features can be easily added without having to redesign the site.

3. CONTENT IS KING

Once you've decided what your website objective is and what you want you to include in the site, it's time to prepare the content. This is a key task and it is a major factor in the effectiveness of the web site

Here are some general guidelines.

1. The home page should draw your audience in, not overwhelm them with information. Keep the layout simple and the text brief. Add graphics to communicate your image.
2. Reproducing existing brochures or other documents on the Web usually doesn't work well. People have short attention spans and don't particularly like to read copious mounts of text on a computer screen. Use only the most compelling information. Add headings and bold text, where appropriate, to make reading easier. Try to limit the length of a web page to three screens.
3. If you include lengthy documents, break them up into sections with headings. Create an index or table of contents at the top of the page, with links to each section. If you want to provide access to a lot of documents, add a search feature or provide them as PDF files that can be easily downloaded for reading off-line.
4. Use graphics to enhance the site, but minimize graphics file sizes whenever possible. Include only those images that add value. Not every photo needs to be in colour; not every catalogue item needs a picture; not every picture needs to be full screen.
5. If you have the time to respond, encourage feedback via e-mail. You will get invaluable information from your audience.
6. Measure traffic to your site. Track viewers' paths through your web pages, so you can adjust your content accordingly.

Smaller Is Better

The best designed websites use graphics sparingly. Because high-resolution images are complex and large, when you convert them into an appropriate format for the Web, they look much less compelling.

The key to creating suitable graphics is to keep the file sizes small so they download quickly. Large graphic files take a long time to download, especially at slower modem speeds. You don't want impatient people leaving your site before they've had a chance to view your site.

Keeping the file size small does not necessarily mean that the graphic itself must be small. The file size is determined by the amount of information in the image. A large image with only a few colours can actually have a smaller file size than a tiny graphic with many colours

Web graphics are usually in one of two formats:

JPEG - a compression method developed by the **J**oint **P**hotographic **E**xperts **G**roup, used for photographic images

GIF - **G**raphics **I**nterchange **F**ormat a compression scheme developed by CompuServe

Dynamic site methods

There are ways to turn a static site into a dynamic one, enabling visitors to do a number of useful things. For example, readers can search for information in a database or select several items from a form and get a customised reply. One way to accomplish this type of interactivity is by using a Common Gateway Interface script, commonly known as a CGI or gateway script.

Common Gateway Interface (CGI)

Simply put, a gateway script is a program that runs on a web server and is triggered by input from a browser. The script is usually a link between the server and some other program running on the system, like a database. Most of the work happens on the server, behind the scenes. You only witness the result.

The real value of gateway scripts is realised through the use of online forms. These can range from simple e-mail forms or data entry boxes for searching, to complex surveys with multiple choices or purchase order forms that process orders online.

At the bottom of the form there are usually two buttons, one to reset the form and one to submit the data. The submit button sets the process in motion. It sends information to the server pointing it to the CGI directory and to the appropriate script to run the procedure.

Flash

Another widely used tool is a product called Flash from Macromedia, Inc. Flash is an animation and authoring program specifically developed for use on the Web. Viewing Flash animations requires a plug-in, a software program specifically designed to work with an existing program, in this case, a web browser. Flash plugs in to your web browser and plays animations embedded on a web page, in real-time.

Both Internet Explorer and Netscape Navigator support Flash and recent versions come bundled with the plug-in. If you don't already have it, you can download it from the Macromedia website. Once you've installed the plug-in, visit the rapidly growing list of Flash sites.

Java

The real breakthrough in interactivity and multimedia content delivery is a programming language called Java developed by Sun Microsystems, Inc. This powerful programming language uses a Java-enabled web browser to run interactive applications.

Java enables web developers to create content that can be delivered to and run by users on their computers. This software supports anything that programmers can create, from spreadsheets and tutorials to interactive games and animation.

A well written Java application on a single web page can engage a user for a long time. Rather than just providing text, sound, images, or videos to observe, a Java page offers a place to play, learn, or communicate and interact with other users. In this way, Java turns the Web into a software delivery system in which users have things to do rather than just places to go. This offers the potential to transform the surfing behavior of Web users into one of playing and learning in interactive environments.

Accessibility

Accessibility is now one of the key issues facing organisations when they plan their web presence. Although section 21 of the UK Disability Discrimination Act makes accessibility a mandatory requirement, no court cases have yet been brought as a result. One of the problems is that there are no hard and fast standards - only guidelines. Nonetheless, many large companies and organisations are recognising the obligations the law places on them to make their services accessible to all.

Web accessibility myths

1. Creating a separate text-only equivalent can lead to a number of problems.

- A text-only version is not necessarily accessible
- Two versions of the same website represents a huge time and money investment for you
- Your primary site may not be accessible to many users

- An 'extra' accessible website for blind and disabled users can be one more way to make them feel marginalised from mainstream society

Web accessibility isn't just about blind and disabled Internet users being able to use your site - it's about everyone being able to access it successfully. It is a simple and low cost exercise to make your website accessible.

2. It's complicated and expensive to make my website accessible.

To develop an accessible website from scratch will cost virtually the same as to develop a website that isn't accessible. A very large, highly inaccessible website may take more effort and associated cost, although the basic layout and design usually need not change. Web accessibility can be easily implemented by a professional web design company.

3. Accessible and attractive web design can't go together.

Many advocates of web accessibility tend to have rather dull, unattractive websites. This is unfortunate, as web accessibility need not affect the design of the website in any way whatsoever.

4. Accessible websites stifle creativity.

Web accessibility actually places very few restrictions on website design.

5. Web accessibility places restrictions on the web page design

Design parameters are the same as with a standard web site. Text size can be as large or as small you like (provided it's resizable), you can use any colour scheme you like (provided colour isn't the only way you differentiate information) and you can use as many images as you like (provided an alternative description is provided).

Working with consultants

Once you have decided the purpose and objectives for your web site meet with your chosen web site consultants and ensure they have a clear understanding of your requirements.

Agree a supply contract or ask the consultant to provide a detailed proposal. Agree the scope of the work expected, the length of time it's expected to take, the hourly or project rate, expense reimbursement arrangement, frequency of billing, payment schedules, and any guarantees. If you want to retain ownership of materials or software and hold all copyrights, clearly state that this is a "work for hire" agreement. It is essential to move the project forward that you have decided on your content so that it can be supplied to the web consultants in a timely manner.

Hold regular meetings with the team working on your project to make sure things remain on schedule. Bear in mind that as the project progresses, your thinking may change. Adding new features to a website may improve it, but it usually increases the cost. As with most projects, everything will take longer than you think, so stay on top of the details and schedule. Establish milestones against which team members can measure progress.

4. WHY COMPANY WEB SITES FAIL

One of the worst and most common mistakes that a business can make is to underestimate the time and money involved in creating and maintaining a web site. Businesses fail on the internet because of three things:

- Their web site is poorly designed, both graphically and interactively (the user interface)
- The information is outdated or inaccurate.
- The business cannot cope with the feedback

Avoid the common pitfalls.

Don't let amateurs design your web site. Choosing a professional developer will pay for itself. Students and other amateurs are not usually "in it" for the long term.

Do think about how your current sales methods will translate onto the web.

Do you know who your potential and existing customers are? This will be a factor on how your web site will be used to expand your business.

Don't focus solely on direct sales. Your site should be used to attract customers to your business. The web is more than just shopping.

Don't spend your entire budget on web site design. Ask yourself these questions as these factors significantly impact on your web site budget.

- Who is going to maintain the site once it is completed?
- Where are you going to host the site?
- Have you created and collated the content you need for the site?
- How are you going to promote the site online and offline?

Do make sure your site is registered with the top search engines.

Do encourage contact and interaction with your customers by using your site to display your products and services, and by using feedback forms.

Do consider adding an on-line newsletter to your site, and update it weekly or biweekly. This encourages potential customers to come back to your web site.

Always **do** answer email queries the same day. If you don't, your potential customer may lose confidence.

Don't be afraid to use text. People want information, and reasons to buy from you.

Don't confuse technology and flash for good copy-writing. On the net, a graphic is not necessarily worth a thousand words. Graphics add to download time and could cost you valuable traffic.

Do not lose sight of the fact that marketing takes time and energy.

5. MAINTAINING YOUR SITE

Implementing a website requires time, thought, and resources in the initial planning and implementation, but creating it is only half the battle. Once you've actually put the site online, the real challenge lies in maintaining and updating it. Keeping your site fresh encourages people to return. Poor maintenance is a sure way of losing visitors, perhaps permanently. Updating a site entails changing the content. This may be as simple as checking links to other sites to make sure they are current, or as complex as adding new capability to forms.

Maintenance generally means making sure that your files and file directory structures are up and running properly at all times, and all your links are functional. Since web pages and their related graphics components are linked in specific ways, any changes or additions that you make to existing documents or directories could affect or alter their relationship to one another.

The most common result is that links are broken, and images or entire pages don't load properly. User feedback, usually via e-mail, can play a big part in flagging these types of problems so they can be resolved in a timely manner.

Maintenance for a small site may take as little as two to three hours a month. On a large site, maintenance may be a full-time job. Be sure to incorporate the costs of maintenance into your budget during the planning phase so it doesn't take you by surprise.

If you're planning a large or complex site or want to gradually add more content and functionality to it, working with an experienced professional web consultancy will be the most cost effective method. Starting with a well-designed site is the most effective way to prevent resource-intensive updates and maintenance.

The resources and cost of keeping a website current and operational depend on the size and complexity of the site and how often it needs to be updated. Remember, adding new content doesn't necessarily mean scrapping the old.

Some kinds of dated material like press releases, software updates, articles or transcripts of speeches can be useful and should be archived. Make sure that archived information is organized in a way that is easy to access.

How do you come up with an effective maintenance strategy? Start by deciding how often you need or want to update your site and how extensive those updates will be.

For example, news publishers will likely update information on a daily basis, in some cases, even hourly. A retailer may update its site whenever there is new merchandise and for special sales and promotions.

Pay attention to what your users are doing and saying. How many people are visiting your site and where are they going? There are ways of tracking which pages of your site are being frequented. If your site is hosted by a web hosting service, it should supply you with detailed and timely reports.

Provide a way for users to give feedback. The most common method is via e-mail. Use that information to identify and resolve technical problems in a timely manner. Use qualitative comments about the site along with usage tracking data to guide your decisions about what content to keep, replace, or improve.

If you're pressed for time or resources, maintaining a simple database of all your pages, including a brief description of each page's content, related links and graphics files, can be very helpful. As your site grows, or if you hand over maintenance to someone else, the database will come in handy.

Interaction and communication with customers

Until now, the primary form of communication between businesses and their customers was through advertising and marketing materials. This doesn't offer much opportunity for interaction or feedback.

With the type of fast-paced interaction made possible via the web, site visitors expect to be able to engage in immediate conversation with a company, especially about its products and services.

Ongoing interaction with customers and potential customers can help improve your product and the way you communicate product benefits, gather customer testimonials, and provide customer service.

Email

Email is probably the single most important and easiest way to get feedback from visitors. A simple "mail-to" link automatically opens up an e-mail box with the reader's address and yours already filled in. You can also create a more complex e-mail form if you want to collect additional information as part of the feedback process.

However you must be able to respond if you want to maintain a relationship with your customers or potential customers. They will expect a prompt response from your company. If they have taken the time to visit your site and offer feedback, they expect you to do the same with their e-mail

One way to manage the e-mail is to create separate links for different departments e.g., sales, service, and administration, so that email automatically goes to the people who can answer it promptly. Your hosting company can set up this service for you it is a low cost and simple system to implement.

It is also possible, set up automatic response forms, known as autoresponders, so that when readers send mail they get an immediate confirmation that their message was received and a staff member will answer as soon as possible.

Forms

Forms allow you to gather user feedback in a more organized and targeted way than with e-mail. You can use forms to conduct mini-surveys or extensive ones.

In addition offer visitors an opportunity to request more information by postal mail, email, download or telephone contact by filling out a form. These strategies can help you build a direct mail database to supplement your online marketing efforts.

6. INTERNET BENEFITS

The table below is designed to assist you at the commencement of an Internet project so that all of the basic issues can be considered. Some of the points will not be relevant to your organisation but the table addresses most of the initial issues concerned with implementing a web site.

Some Points to Consider	Your Own Ideas/Comments
<p>Establish Ownership</p> <ul style="list-style-type: none"> • Who in your company will have overall responsibility for the site? • Identify and involve key individuals within your company who have a vested interest in the success of the site. • Who will have responsibility for acquiring or creating text and photographic content for the site? 	
<p>Overall purpose of site</p> <ul style="list-style-type: none"> • Publicity • Information service • Peer group resource • Recruitment • E-Commerce • Intranet/Extranet 	
<p>Internet Service Provider (ISP) Issues</p> <ul style="list-style-type: none"> • Do you have an ISP? • Available web space • Upload Procedure • Do you have or require a Domain name? 	
<p>Design Issues</p> <ul style="list-style-type: none"> • Budget • Time scale • Target audience • Perceived/Projected image • Navigation technique • Multi-Language • Screen resolution/colours • Colour scheme 	

<ul style="list-style-type: none"> • Fonts • Links 	
<p>Basic Content</p> <ul style="list-style-type: none"> • Entrance • Welcome • News • Contact Information • Map & Directions • User Feedback • Company Information • Links • Help 	
<p>Project Lifecycle</p> <ul style="list-style-type: none"> • Initial discussion • Storyboard • Identify maintenance requirements • Media/Content acquisition • Quote • Media conversion • Original artwork • Page construction • Review and testing • Design sign off • Going Live! • Search engine submission • Publicity • Project sign off • Maintenance 	
<p>Publicity</p> <ul style="list-style-type: none"> • Target your audience • Internet search engines • Traditional media advertising • Industry publications • Business stationery • Mail shots • Reciprocal links • Banner Exchange Program 	
<p>Maintenance</p> <ul style="list-style-type: none"> • User or developer maintained • Update frequency • Additional functionality 	

- Special events & promotions