

Effective Web Development for Business Success

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Executive Summary

The Internet has become an effective means of advertising, promoting, and informing potential customers about a business in the twentieth century and businesses must take their Web sites seriously. The number of potential customers that can be influenced by a Web site far exceed any other means of advertising. It is this reason that having a effective Web site is a key element to having a successful business. When creating or re-designing a Web site, three topics must be addressed: the aesthetics and functionality, search engine optimization (SEO), and online advertising.

If a Web site is not functional it will drive customers away rather than attract them. This defeats the purpose of having a Web site and therefore is the first thing to consider when designing a Web site. Good aesthetics for Web site involve such things as layout, typography, sound, video, and animations. These must be taken into consideration because a user's first impressions of a Web site can ultimately effect purchasing decisions. Browser compatibility, correct image resolution and format, and other functional elements combined with visually pleasing aesthetics are the first steps to having a effective Web site.

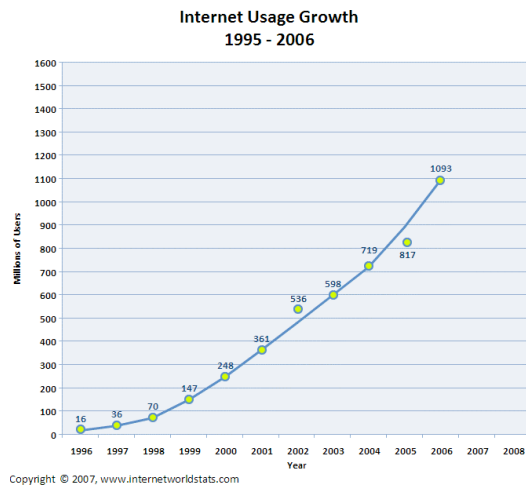
SEO is a process that enables Internet search engines to easily find and access a Web page with the overall goal of generating more traffic to that Web site. Search engines are the most used method for directing traffic to a Web site, thus SEO is another key element to implement in an effective Web site. A site cannot be discovered to its full potential unless it is optimized for search engines utilizing simple common techniques. In order to stay active and ranked among search engines, a Web site must constantly change and evolve.

Online advertising needs to grab attention without sacrificing comfort. Common annoying online advertising includes spam, flashy-ness, and pop-ups. Banner ads are no longer a wise investment due to their pestering appearance. Paid placement can be an effective method for attracting customers without annoyance.

Today, an effective Web site must utilize a combination of good aesthetics and functionality, SEO, and online advertising to be successful. Lacking in one area can drive potential customers away from a Web site. However, each aspect of establishing a presence on the web cannot only be addressed once. Technology is evolving at a rapid pace and the Web is following the pace accordingly.

Introduction

An effective Web site has become a key factor in determining the success of a business. The number of Internet users in the world has increased significantly from 16 million (0.4 percent of the world's population) in 1996 to 1,093 million (18.9 percent of the world's population) in 2006 ("Internet Growth Statistics"). The number of users online will likely continue to grow at an increasingly rapid



pace into the future. Because of the growing number of Internet users, a business must have an online presence in order to attract as many customers as possible. According to a recent survey, 65.1 percent of those surveyed indicate that they often use the web as a means to find more information about a business ("Internet Usage"). If potential customers cannot find information about a

business online they may choose to interact with a different, similar business that has an online presence simply because they have the means to learn more about it. In addition to simply having a presence online, businesses must implement effective means of achieving good aesthetics and functionality, be able to be found through search engines, and be able to attract customers through online advertising. For a business to truly gain all potential traffic online, these three aspects must be mastered.

Aesthetics and Functionality

It is becoming increasingly important for a business to have a functional and aesthetically pleasing Web site. The Web is a rapidly changing form of advertising and marketing for businesses that must be utilized for success. *Catalog Age* magazine even renamed itself *Multichannel Merchant* because the catalogers are now utilizing the Internet with on-line catalogs (Romano 25-31). When a customer enters a Web site for a first time, the business wants to make a lasting impression on that customer.

A strong impression can be made through aesthetics (design elements, appeal) and functionality (navigation, page load time, etc). The Plant Lady, a local indoor plant provider, recently underwent a Web site re-design in which design elements were a key aspect to the re-design. Design Elements such as layout, typography, sound, video, and animations are all ways to enhance the “face” of a Web site. Pleasing aesthetics are key for first impressions but functionality will keep the customers’ business. It is the most important aspect to Web site effectiveness. If it doesn’t work, customers will turn to competitors.

First impressions count. People base instantaneous judgments on first impressions, which can be applied to Web sites as well. Canadian researches say that Web users will make these first impressions within 1/20th of a second. These impressions can greatly impact perceived credibility, usability, and purchasing decisions ("First Impressions Count in Web site Design").

98 percent of people from a survey conducted among Graphic Communication students at Cal Poly agreed that the aesthetics of a Web site impacts their opinion of a Web site. While the test group is not a representation of the general population using the Web, it can be concluded that savvy Web users take the “look” of a Web site seriously. Low resolution images, bad typography, poor Web site design, and mis-matched color pallets can drive customers away from a Web site.

Another important aspect for a business Web site is functionality. Functionality begins with the first page the user views, the homepage. The homepage should provide information about the business in a clear and concise manner. Consistent navigation techniques from the homepage to links must be utilized because customers are not ready to learn individual site navigation. The homepage should

include basic information about the business such as the logo, mission statement, links to products, on-line shopping if offered, contact information, etc. (Blum).

The speed of load up time is another functionality factor that can keep customers viewing or drive customers away from a site. If the site takes ten minutes to load due to large graphics, customers will give up and move on to the next competitor's site. Reducing the size of graphic file to optimize download time will help create a Web site that is easy and fast to use. When placing pictures with text contained inside the file, the Gif file format should be used to preserve the integrity of text (Blum).

The previously mentioned survey also showed that over 85 percent of Graphic Communication students use Safari or Firefox as their Internet browser. Browser compatibility is an important factor to take into consideration when designing a Web site. A company needs to know who will be viewing their Web site and what the most commonly used browsers are for that market to make sure that it loads correctly. Knowing the browser preference of a target market helps a designer design a site to specifically work well with certain browsers the market will be using.

Ease of navigation is of the most importance concerning functionality when navigating and viewing a Web site. The Plant Lady noted that easy site navigation was a top priority for their Web site reconstruction. Site maps are an effective and easy way to improve Web site navigation.

Richard Romano, senior analyst for The Industry Measure, published an article related to Catalog Publishers initializing the Internet to drive sales in the 2007 30th anniversary edition of GATF World. He noted that the top ten sales opportunities for catalog publishers included improving Web

sites, driving traffic to a Web site, cross-media campaigns that involve e-mail and direct mail projects, and Web page design. This demonstrates the transition to e-commerce for catalog publishers as their Web pages are becoming an increasingly important area for growth (Romano 25-31).

Search Engine Optimization

A well-designed Web site may look pleasing and may navigate smoothly for customers browsing the site, however, for such a well-designed Web site to be viewed, as it should, it must be optimized for search engines. Search Engine Optimization (SEO) is a process that enables Internet search engines to easily find and access a Web page with the overall goal of generating more traffic to that Web site (Kay). Due to the fact that search engines are the most used method for directing traffic to a Web site (iprospect.com), Web sites that do not focus on SEO will rapidly lose visitors and will not fully profit from existing on the Web. Over 90 percent of Internet users use search engines to find products, services and information and if a Web site does not show up in the first 10 to 20 listings, it will most likely not be looked at or found (iprospect.com).

Recent research shows that companies who optimize their Web site for search engines have tremendously increased traffic to their site and in turn, have increased business and profit. Sharp Electronics, a more recent entrant to the World Wide Web, had difficulties drawing traffic flow to their site. With the help of iProspect, a premier search engine marketing firm, SEO techniques were applied to the Sharp Electronics Web site. Overall, the Web site generated 276 percent more referrals from search engines from when the Web site was first implemented (iprospect.com).

There are several ways to optimize a Web site for search engine recognition. Two common strategic categories are referred to as "Natural SEO" and "Paid Placement SEO." Natural SEO describes the

process of optimizing a Web site through simple adjustments such as keyword development, internal and external links, and text based content and images. Through a “natural” method, SEO is implemented behind the scenes in the development and design of the Web site.

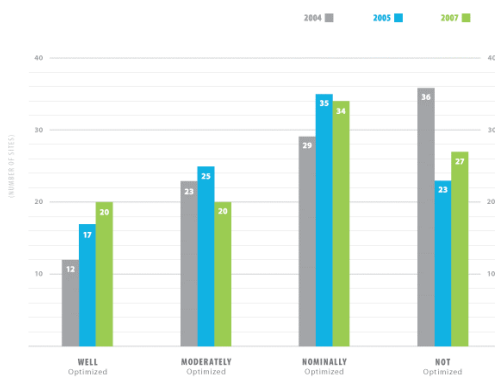
Some of the most beneficial “natural” methods are:

- Linking: include links to other Web sites (with relevant information) within the company’s Web site. The more a site links to outside sites, the more accessible it is to search engines.
- Keywords and Phrases: target ‘less competitive phrases’ as opposed to ‘competitive phrases.’ Through researching target markets as well as competitors, a company can produce a strong list of keywords and phrases that pertain to their product and/or service. It is the less competitive words and phrases that generate more traffic since there is less competition for use of such words from other sites. Once a company gains establishment among the Web and search engines, they can then incorporate more competitive phrases.
- Content: include content such as articles, whitepapers, etc. that is relevant to information regarding the company. This often attracts ‘inbound links’ (other Web sites put links on their site to Web sites with relevant information). Search engines will place Web sites at a higher ranking depending on the amount of inbound links found from other sites. The more inbound links a site has, the higher the ranking the site will have on search engines.

Paid placement is a completely different approach to SEO than natural SEO and, though common, can be very expensive. When a company chooses to spend more money on SEO, they will often enlist the help of professional SEO firms to create ads that can be searched through search engines. Keywords, content and design are all important factors in paid placement ads as well, however, there is more of a guarantee that the ad will show up from searches. If the ad does appear and is clicked on by the searcher, the company placing the ad has to pay a small fee (pay per click). The paid

placement advertisements are often sorted separately from the sites brought up through natural SEO. For example, when searching Google.com, the paid placement search ads appear to the far right side of the screen and are referred to as “Sponsored Links” (Oneupweb).

The method in which search engines operate is highly automated and selective in order to deliver the best results to the person conducting the search. In order to find the most legitimate, informational Web sites, search engines send out what is technologically referred to as a “Search Engine Spider.” A “spider” is an automated program that “crawls” across the World Wide Web gathering information from Web sites and then feeds that information back to search engines so that the search engines can index and easily retrieve the information about sites when a search is being conducted. The “spider” looks for certain text-based characteristics of a web page, such as rich page content and keywords, while skimming over elements of a page such as flash-based elements and image-based elements. Knowing what the “spider” is looking for is the key to understanding how to optimize a Web site for search engines. Sites that are more frequently updated attract more visits from the “Search Engine Spider” so it is crucial to maintain a Web site with constant activity and



updates (iProspect).

Though many companies currently developing a Web presence are learning about and implementing SEO, there are far too many who still have no knowledge of the benefits of SEO.

Over 50 percent of Web sites are not optimized at

all (iProspect).

Online Advertising

Aside from simply having a site online, it is important to advertise it so consumers can find it. According to PricewaterhouseCoopers, advertisements on the Web rose from \$16.8 billion in 2006 to \$21.1 billion in 2007. The company also predicts that money spent on online advertising will continue to rise by as much as 19 percent through 2008 (Shields 2) By 2010, Internet advertising spending may become the largest advertising category overall, overtaking print and newspaper advertising according to the media-investment firm, Veronis Suhler Stevenson. There are many different methods of advertising a site or business online. Many of the ways to advertise online include unsolicited commercial email (“spam”), pop-ups, banners, and paid placement – some of these forms are more effective than others.

Unsolicited Email

Many Internet users have gotten familiar with advertisements in the form of emails. In fact, unsolicited email (“spam”) accounts for nearly half of all emails and the rate of these emails continues to grow at a rate of 50 percent a month (Stephen 1). Because of the large amount of spam being sent out every day, spam blockers are becoming a common feature for most email providers. Popular email providers such as Google’s GMail automatically sort spam in to a separate folder so that their users will not have to deal with the frustration of deleting the emails themselves. Despite this, still many spam emails are getting through to users. Companies have discovered that, by deliberately spelling their product’s name wrong, they can evade spam filters. An example of this would be an email containing the word “Viagraa” instead of “Viagra” (Stephen 2).

Although spam continues to be an annoying factor of everyday life, it has been found to be at least somewhat effective. It has been estimated that at least 37 percent of recipients had, at some point in time, bought something offered through unsolicited emails. Advertising by email, in one year alone, generated \$1.4 billion (Stephan 3). Based on this information, it is clear that advertising by email can be an effective means of attracting customers to a business' Web site. However, although customers can potentially be gained, many more can be lost due to the sheer annoyance of receiving product advertisement by email.

Pop-Ups

Another form of advertising that Internet users tend to find annoying are pop-up windows. Because these windows open automatically when a user visits a separate Web site, they can over-crowd one's desktop or even cause a computer to crash due to the amount of memory that is taken up. A recent survey of Cal Poly Graphic Communication students indicates that 95.4 percent of those surveyed never click on pop-up advertisements. Also, according to the results of a survey in 2006, 81 percent of people surveyed use pop-up blockers that they have either downloaded or purchased ("Advertising Avoidance"). Like spam, although some pop-up advertisements can attract a few potential customers, it would be wise to avoid them.

Banner Advertisements

Since Internet advertising was first born, banner advertisements have been the most popular type of advertisement utilized. As of 2003, banner advertisements accounted for 58 percent on online advertising. Despite their popularity, banner advertisements have been declining in efficiency since 1994 when their click-through rate was measured at 2.4 percent. According to a recent survey of Cal Poly Graphic Communication students, 75.6 percent of the people surveyed indicated that they never click on banner advertisements while the remaining 24.4 percent admit to clicking on them

occasionally. A reason for this could be that Internet users have become so used to banner advertisements appearing in one area of a Web page (such as the top) that they subconsciously skip over them (sometimes referred to as “banner blindness”). Because banner advertisements usually only take up about ten percent of a users page view, advertisers commonly try to make their advertisements as flashy and brightly-colored as possible; this, however, still provides little help (Chatterjee). Due to the growing ineffectiveness of banner advertisements, they are not recommended as a means of advertising a Web site online.

Paid Placement

If a company wants to ensure that it will be found easily paid placement is a common means of attracting potential customers through search engines. The companies that utilize paid placement can be easily identifiable by the “sponsored links” section at the top of a search engine’s page after a word(s) have been searched for. Paid placement (or pay-per-click) involves bidding on keywords that, once searched for, will point users to a site. Every time the link is clicked the site will have to pay a fee to a search engine. The more popular a term is that a company bids on the more expensive it will be. This means that online companies will have to determine the importance of a potential keyword in terms of increasing business (Coudray). Though this type of online advertising can be very effective and, due to search engine company restrictions, not appear annoying or distracting to potential customers there are risks involved.

The biggest potential problem with paid placement advertisements is click fraud. Click fraud can be identified as the clicking of a company’s Web site link without the purpose of conversion (performing a desired action such as viewing a key page or making a purchase). Because click fraud

can cost a company a considerable amount of money it must continuously be watched for, and, if a company believes click fraud is occurring at a high rate, the search engine must be notified.

The type of click fraud that is usually unintentional is known as void clicking. Most search engines define void clicking by either a user accidentally double clicking on a sponsored link or attempting to visit a sponsored link while a company's Web site is down for maintenance. Many competitor companies that have been found guilty of click fraud have, however, admitted making their fraudulent clicking appear as void clicking. If a company decides to use paid placement to advertise their Web site some common methods of achieving success are to have a good understanding of the company's target market and the needs of its customers, set up a monthly budget to adhere to, determine proper target keywords, and make sure the business's link has a proper description with references to promotions potential customers might be attracted to (Platt 1).

In terms of online advertising, no matter what method a company chooses it would do well to stay away from the types of advertisements that grab a user's attention by sacrificing their comfort.

Although a flashy banner or pop-up may immediately grab someone's attention, they will be unlikely to actually purchase anything because of the sheer annoyance it causes them. Companies wishing to drive traffic to their Web site need to create and promote advertisements that are noticeable without being obnoxious. It is also important for a company to make sure it is being advertised on relevant sites. The more alike in content a site is to the site an advertisement is linked to, the more likely someone browsing a site will want to purchase - or at least learn more about - whatever is being advertised.

Companies implementing successful strategies

Web sites, as shown in interviews with local companies, are undoubtedly beneficial to the success of a company and their business. Richard Smith, co-founder of Nutritional Energetics and Human Performance, LLC (NEHP) of San Luis Obispo has been developing his business since 2006 and Web site implementation has been a critical step along the way. NEHP is a new company who has developed a sports recovery drink for athletes to replenish the vitamins and minerals that have been lost during a workout. The sports drink industry is an extremely competitive industry to enter as well as confusing. Often known for having an unhealthy reputation, sports drinks can have difficulties selling themselves in the athletic world. Smith recognized this as his main obstacle to overcome. His number one priority for NEHP was to differentiate from the rest of the industry and to educate his customers on the details and differences of NEHP's recovery drink, Fluid. The first place Fluid founders turned to in order to begin educating was the Internet. Web site development began immediately after the formation of NEHP.

Throughout the site development stage Smith and Brown wanted to maintain a look a feel that directly corresponded to Fluid's vision. Smith described their vision as being a "company who is dynamic, novel, progressive, benevolent, effective, and evolving." Every aspect of the company (logos, site design, site navigation, etc) must encompass and reiterate the vision of the company so the customer is constantly reminded what the company stands for as opposed to being confused by several different ideas.

Smith described the development of Fluid's Web site in three phases. Phase one consisted of simply establishing a Web site. In April 2006 NEHP made its web debut with a five-page site Smith described as an "online business card" with "primary navigation only." Fluid, the drink, was not even

part of the site yet. This site primarily supported the personal training services NEHP originally offered. The next year was spent on research and development of Fluid recovery drink. The drink was released in May 2007 and the company began referring to themselves as “Fluid.” With the release of Fluid, Smith entered phase two of the re-design for the company's Web site that aesthetically fits the mold of Fluid. Fluid's site was re-vamped and had the "look" Fluid's founders wanted. However, aesthetics are only one integral aspect to a Web site's success and benefits. As Fluid found out, the Web site hardly received any web traffic and remained stagnant. Fluid's site had been created entirely in Flash, technology that is still used in Web design but only in small amounts. Flash masks the Web site's ability to be searched among search engines. The flash elements of the site also created a distraction from the main purpose of the site. Too much movement was drawing attention to irrelevant aspects of the Web site.

Through trial and error, Fluid reached its third and most current site development stage. Through extensive market research and brainstorming, more beneficial and functional aspects were developed. Fluid re-assessed their primary focus and purpose of their site: to create value in their product and the company. In order to create value, a company must educate potential customers to convince them of such value. Fluid's site became an interactive, more dynamic center for education of the product through pages titled "Fluid school" describing the ingredients and benefits of Fluid from the most basic level of understanding to the most complex for those who already have extensive nutrition and dietary backgrounds. In the near future (phase four) Fluid school will have interactive tests the user can participate in as well as blogs and community forums to create and facilitate a Web-based community.

In addition to creating simpler design, more dynamic pages, and adding information, Fluid moved

towards utilization of Search Engine Optimization. Not only did Fluid founders hire a Web designer to re-design the Fluid site implementing SEO, but they were also involved in learning about SEO along the way. Having an understanding of all that is being put into a product can ultimately help a company increase awareness and sales. Richard Smith regularly checks on his site through a program, Google Analytics. Analytics, through free registration, keeps track of all traffic flow to a Web site. It can provide information such as how many minutes were spent on the site as well as which page received the most Web traffic. Through Analytics, Smith learned that Fluid had 104 outside links to their site, over 20 more than their original goal. Constantly checking the reports on Analytics provides Fluid with ideas for where to expand their market, especially on the Web. Smith believes in learning through involvement in all aspects of the company.

Aesthetics, functionality, navigability, Search Engine Optimization, and online advertising all benefit a company tremendously. However, each aspect of establishing a presence on the Web cannot only be addressed once. Technology is evolving at a rapid pace and the web is following that pace accordingly. Richard Smith of Fluid constantly reminds himself that "a Web site is never done." Having a Web presence is "a process, not an event."

A company, smaller than that of Fluid, who has been learning the benefits of a Web site is Cory Bennett. Cory Bennett created a Web site himself to sell his t-shirts. "For me, the Web site was a turning point in my business. It signified the transition of my hobby into a business," Cory says. For a first time Web site developer, the functionality of the Web site was key. He wanted a functional Web site where customers could place orders for his t-shirts while also serving as an online portfolio of his artwork. Due to his one-man screen print on demand method, overcapacity was his biggest fear in establishing a Web presence. Being unable to meet the demand of customers can be

detrimental to a business. Thus, SEO and online advertising were of no concern when creating his Web site. For this first time business owner, the Web site is the heart and soul of his new company. As Cory said, “I want to grow my Web site into a lifestyle, constantly changing a evolving it to my current projects.”

Conclusion:

With the increasing significance of developing a presence on the Web, companies should be researching and considering the many ways a Web site can be developed in order to be the most beneficial. Through critical aspects such as Aesthetics, Functionality, Search Engine Optimization, and online advertising, a Web site can aid a company in their strive for success. Aesthetics and functionality are a basic requirement that can be the most important to address. Even a customer with little Web knowledge can be affected by the look and feel of a Web site. Search Engine Optimization is critical to achieve full benefits from the aesthetics and functionality of a site. The Web site may look great, but until it is optimized for search engines, it will not be found. Once a site has been developed and optimized, companies can look for further online opportunities to continue the growth of business. Several forms of online advertising are available. Through research of target markets, companies can determine which form of online advertising will attract the most people from their target group of customers. Ultimate success from a Web site, as described in Richard Smith’s experience, can only be achieved when a company is dedicated to learning, implementing, and constantly updating all critical aspects of a functional Web site.

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