

Web Development

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Executive Summary

My successful launch of a first-attempt Internet website is a good accomplishment. Learning how to design a web page is one thing – getting it on to the Internet is another. I spent over 20 hours from the time I started until my initial web site was functioning. Constant updates, additions and improvements to my site require several hours per month. Additional research, reading and writing this paper required an additional 24 hours. I have gained knowledge and understanding through research of information on the Internet and through reference materials such as Dr. Evoy's *Make Your Site Sell*. The proof of accomplishment and time spent is in my website itself, but I also wanted to include in this paper things I have learned for my future reference and information for others.

1 Introduction

I had no previous experience in web design before starting my MBA at Rushmore University, and I had no knowledge of how web pages get onto the Internet for others to access. I am an engineer, though, and these things were of interest and aroused my curiosity. Visiting Rushmore students' websites provided a good starting point for designing the basic layout and look for my website. Transforming those ideas into reality was accomplished through much trial-and-error. I chose

Microsoft Word for creating my web pages and bought a how-to book on web page design, which included shareware programs for FTP uploading of web documents – I picked CuteFTP.

Researching the Internet for available web hosting companies and a domain name were the next steps in developing my web site. Several days were spent sifting through the options for a web host, and I quickly ruled out the ‘free’ hosting sites because of my lack of confidence in them. Featureprice offered a mini plan with 50 mb of web space for \$4.95 per month, which fitted my expectations for cost and space requirements. I also purchased my domain name from Featureprice. The documentation from Featureprice made it easy to set up my FTP software and create a new email account associated with my new domain name.

My initial experience with web design and publishing my web site would have been much easier had I known about *Make Your Site Sell* by Ken Evoy.

2 Overview

Ken Evoy is a Canadian medical doctor, inventor and author of *Make Your Site Sell*. Not wanting to spend a lifetime in the Canadian socialized medical system, Dr. Evoy and his wife began to design toys and games in 1983. They sold 23 of their inventions to large companies which generated substantial royalty income. In 1996 Dr. Evoy became interested in the Internet and began writing a computer program for investing and he became active in the penny stock market. His website became very popular and this Internet marketing experience provided the springboard for *Make Your Site Sell*. Dr. Evoy is firmly established as a very successful Internet marketer, and is ranked number 3 in the Internet Marketing Top 10 by Internet Marketing Register.¹

3 What I Learned

3.1 Web Host

One of the lessons I learned is to choose your web host carefully. There are hundreds of web hosting companies, all having several hosting plans to choose from. My choice of Featureprice for hosting my website proved to be the wrong one to make. I did my homework by researching the Internet but my criteria were too narrow – price was my first criteria. Dr. Evoy writes that the monthly cost is not important – a good, reliable and supportive web host is worth its weight in gold.

Dr. Evoy lists several things to consider in choosing a web host:

¹ Internet Marketing Home Page. <<http://www.marketing-register.com/top10>> 2003. 18 May 2003.

1. 24x365 support – you want to talk to live human beings.
2. 99% or better uptime (availability).
3. Connection speed – check sites that use hosts you are considering for their speed of use.
4. Domain Name – if you get your name from the web host you need to be the administrative contact. It's your name and you need to be in control of it.
5. At least 5 email accounts.
6. Secure Server (SSL) – a must for credit card sales.
7. Data Transfer – most sites need less than 1Gb, so 2Gb is plenty.
8. Storage Space – most sites use less than 10Mb.
9. Unrestricted FTP access.
10. Access to Raw Log Files.
11. A control panel that is easy to use.
12. How long has the company been in business?

As Featureprice started having business problems, my renewal of services was coming due. Continued attempts to contact them by phone and by email were futile. I read several articles on the Internet written by Featureprice customers who were upset with the situation. The Featureprice website now reveals that their assets were purchased by Atlantic.net on 21 May 2003. The customers who paid for annual service cannot get their money back – I was fortunate that I could not make contact with them to renew my service for another year. I was not fortunate in discovering that I was not the administrative contact for my domain name.

3.2 Domain Name System (DNS)

All computers that access the Internet have a unique identity called an IP address. Some computers, such as servers, have IP addresses that do not change. Home computers that access the Internet through a dial-up modem typically have an IP address assigned by their ISP (Internet Service Provider) and the IP address changes with each dial-up connection. An IP address is all you need to connect to a server on the Internet, but remembering the IP addresses for each of your favorite web sites would be difficult. To solve this problem, *domain names* are used. It is easier to remember www.lunarpages.com rather than `http:// 64.235.234.245`. Translating the domain name into the IP address is called *resolving* (the domain name). How are all domain names and IP addresses kept organized and unique? That is where ICANN comes into the picture. ICANN is responsible for managing and coordinating the DNS to ensure universal *resolvability*, and it is the global, non-profit organization that acts in the public interest responsible for ensuring that the DNS continues to function effectively. They oversee the distribution of unique numeric IP addresses and domain names through their accredited registrar process.² My new domain name, michaelschmidt.com, is registered with Tucows, Inc. that is accredited with ICANN.

² ICANN Home Page. < <http://www.icann.org> > 27 May 2003.

A domain name is comprised of the *top-level*, or *first-level domain* that is the .com, .net, .org, .gov, and .edu for examples. Data for these top-level domains are held on *root name servers*. These servers were maintained by the Network Information Center (InterNIC). The InterNIC was a cooperative activity between the National Science Foundation, General Atomics, AT&T, and Network Solutions, Inc. The joint activity InterNIC no longer exists. Currently, Network Solutions runs the central registry according to the shared registry model specified by ICANN for registration of second-level domain names under the generic top-level domains .com, .net, and .org.³

There are 14 root name servers today for the top-level domains (TLD):

TLD	Introduced	Sponsored/ Un-sponsored	Purpose	Sponsor/Operator
.aero	2001	Sponsored	Air-transport industry	Societe Internationale de Telecommunications Aeronautiques SC, (SITA) http://www.information.aero
.biz	2001	Un-sponsored	Businesses	NeuLevel http://www.nic.biz
.com	1995	Un-sponsored	Unrestricted (but intended for commercial registrants)	VeriSign, Inc. http://www.verisign-grs.com
.coop	2001	Sponsored	Cooperatives	DotCooperation, LLC http://www.coop
.edu	1995	Sponsored	United States educational institutions	EDUCAUSE http://www.educause.edu/edudomain
.gov	1995	Sponsored	United States government	US General Services Administration http://www.nic.gov
.info	2001	Un-sponsored	Unrestricted use	Afilias, LLC http://www.afilias.info
.int	1998	Un-sponsored	Organizations established by international treaties between governments	Internet Assigned Numbers Authority http://www.iana.org/int-dom/int.htm
.mil	1995	Sponsored	United States military	US DoD Network Information Center
.museum	2001	Sponsored	Museums	Museum Domain Management Association, (MuseDoma) http://www.nic.museum
.name	2001	Un-sponsored	For registration by individuals	Global Name Registry, LTD http://www.nic.name
.net	1995	Un-sponsored	Unrestricted (but intended for network providers, etc.)	VeriSign, Inc. http://www.verisign-grs.com
.org	1995	Un-sponsored	Unrestricted (but intended for organizations that do not fit elsewhere)	Public Interest Registry. Until 31 December 2002, .org was operated by VeriSign Global Registry Services. http://www.pir.org
.pro	2002	Un-sponsored	Accountants, lawyers, physicians, and other professionals	RegistryPro, LTD http://www.nic.pro

Source: <http://www.icann.org/tlds/>

³ Zvon Home Page. <<http://www.zvon.org/tmRFC/RFC2901/Output/chapter13.html>> 29 May 2003.

3.3 Web Design

I recall reading the Rushmore website information relating Dr. Cox's philosophy about keeping a website simple. The Rushmore website reflects this philosophy and Dr. Evoy agrees and offers many tips and guidelines for successful website design.

- Opening (home) page appearance and detail is most important. You, your product or the service you offer will be judged by the appearance of your website. Your opening page should specifically let visitors know exactly what your website is about.
 - Dark text on light background is best.
 - Use simple background -
 - Don't underline words – will look like hyperlinks.
 - Keep text readable and easy for visitors to scan quickly to understand your site.
 - Avoid using busy backgrounds - draws attention away from the text and makes the text difficult to read.
 - Always be consistent with your background theme on each page of your site.
- Speed of opening the home page is important to visitors.
 - Keep graphics to a minimum.
 - No multimedia effects.
 - Minimize complex tables.
- Use Frames sparingly – for left column table of contents you might use a 2-column table. Older browsers and browsers for the visually impaired cannot process frames.
- Navigational links - visitors may enter your site from pages other than your home page, so make sure you include good navigational links on every page, i.e. 'home' button.
- Text blocks – design for 8-bit, 256 color monitors because not everyone has the latest technology equipment. Don't use wide blocks of text that force the visitor to read across the entire screen. Copy blocks should be 400-500 pixels maximum. Preview your website through different browsers and screen resolutions to see how it will look to your visitors.
- Check for errors – double check your website:
 - For spelling and grammatical errors.
 - For images working properly.
 - For hyperlinks working properly.
- Use bright graphical bullets for emphasis or bold text to highlight important aspects of your home page.
- Meta Tags for search engines to recognize your website – include meta tags in HTML format in the header section between the <HEAD> and </HEAD> tags. A good source for creating these meta tags can be found at <http://www.anybrowser.com/MetaTagGenerator.html>.
- Constantly add new content or update the content of your website – give your visitors a reason to keep coming back.

Things to avoid and mistakes that are made:

- Avoid the dreaded horizontal scroll bar – no one likes to scroll horizontally. Stay within the pixel limits of 600x800 monitors with some margin, which means the total width of your web page should not exceed 750 pixels.
- Avoid using scrolling marquees and banner ads – most people don't read them.
- Avoid using blinking text – its annoying. Be nice to your visitors.
- Avoid using Hit Counters – don't put one on your site. No one cares about it.
- Avoid using pop-up windows – unless there is a very good reason for you to do this. It causes the visitor to manually close windows, and that may get them confused and frustrated. Use them if it is necessary to show them a new product or send them off-site from yours.
- Avoid sending visitors off-site - they may not find their way back to your website.
- Avoid using a Splash screen – it stands between the visitor and your home page. Boring.
- Avoid using Guest Books – people guard their email addresses more carefully now.
- Don't offer links to download Netscape and IE – why? They are not paying you to have them on your website.
- Make sure to include how visitors can contact you
- Avoid using animated graphics, if possible
- Don't use extremely large fonts

4 Conclusion

It is not extremely difficult to learn the basics of web design, the domain name process and publishing your design on the Internet. There is so much information available on the Internet and in written book form that you can learn as much about these things as you want. There is also a wealth of knowledge available in Ken Evoy's *Make Your Site Sell 2002*, and I will continue to refer to this material as I improve and update my website. Two important lessons learned are to take the time to design your website carefully and take time to choose the most reliable and reputable web host.

Citations

Evoy, Ken M.D., *Make Your Site Sell 2002*.

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