WEBSITE DEVELOPMENT: SEVEN STEPS TO SUCCESS

[Chapter 2 – Digital Minds v2]

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Introduction

For more than a decade, we have been involved in website development. We have witnessed the emergence of and developed for Web 1.0 (the information web), Web 2.0 (the collaborative and shared web), Web 3.0 (semantic and big data web), and we eagerly await Web 4.0.

Why write about website development you ask? Old hat, boring, flat and uninteresting are words that may spring to mind when you think web development. Besides, the new web is all about apps and cool stuff, isn't it? Sure it is, but a well-designed, compelling, converting website is also the hub of any high-performance digital marketing strategy. The success of major marketing automation companies like HubSpot and Marketo bear testament to this.

This whitepaper is written to help guide you through the "Seven Steps to Success" required to ensure your website because the center and driving force behind your digital marketing strategy.

Step 1: Discovery

Many business owners know they need a new website but they have no idea where to begin. Before you start soliciting offers from design agencies and developers spend a good amount of time, preferably with the help of a trained consultant, analyzing what you need. Quality work at the beginning will pay dividends in the end! This all comes back to our advice of measure twice, cut once.

What Kind of Site Do You Need?

Here's a list of some of the most popular types of websites WSI has developed for clients over the years.

Personal Website: Non-business perhaps for an individual or family that wants to share information on the web.

Social Sharing Website: Could be for a business, non-profit or an individual. The purpose is for users to communicate and interact. Can be used as an effective way to promote a business or an important source of valuable data.

Publishing/Blog Website: Provides a platform for authors, writers, and bloggers. Often includes biographies of publishers and categories of subject matter.

Digital Community Website: These relate to digital communities rather than physical communities. They are used by people for social interaction and discussion of mutual interests. Also a valuable source of valuable data.

Specific Mobile Website: Needed when your target audience is found on mobile devices. Developed to provide the required information to the user with minimum navigation.

Mobile App Website: Not to be confused with a "native app". An app website is run from a hosted application and not from within the mobile device. Usually cheaper to maintain, content

can be modified on a mobile app website quickly without having to update and issue native app code.

Bookings Website: Could be a travel, flights, and hotel booking website, or a restaurant, food delivery or taxi service. These websites are connected to and integrated with one of the large industry specific booking engines such as Kayak or Synxis.

Directory Website: The digital equivalent of the old fashioned Yellow Pages. Often used to classify and promote business services within specific geographic areas.

Marketing Brochure Website: Used mainly as digital brochures and catalogs. Can be produced, maintained and distributed at a fraction of the cost of printed media.

Information Website: Designed to inform users. The largest of this type of site is, of course, Wikipedia. However, businesses that create relevant and useful information can attract visitors that may then be converted into customers.

eCommerce Website: Levels the playing field so a small company can compete with larger companies. Do not underestimate the expense and resource requirement to maintain this sort of site though, as it can be significant.

Regulated Industry Website: Banking, insurance, pharmaceutical and other regulated industries are required to ensure their website content is compliant with certain regulations that govern their industry. These companies require their websites to include a content management system that has an approval process built in so that compliance departments can approve content before it is published.

Who Is Your Audience?

No matter what kind of web development project you plan, you need to think about the type of people you are trying to reach. In my experience this important factor makes a major contribution to the eventual success of a project. But it's an area that's often ignored by companies when planning and implementing a new website project.

Conducting a buyer persona analysis will help you outline who your consumers are and who you need to ensure your website caters to. A quick definition of what we mean by a buyer persona:

A buyer persona is a semi-fictional representation of your ideal customer based on market research and real data about your existing customers. When creating your buyer persona(s), consider including customer demographics, behavior patterns, motivations, and goals.[i]

What is the Primary Goal?

Your website may have many marketing objectives that it needs to deliver on. But it's important to have one primary goal in mind to help you prioritize tasks and focus your efforts.

Here are some of the most common ones:

Acquire New Customers: If the primary role of your website is to acquire new customers, a lot of planning needs to go into the usability of the site (including navigation across different devices). Branding, presentation of information and graphics design (including imagery) are also important. Information is used to tell customers about products or services. The website should be maintained, updated and regarded as a primary sales tool.

Improve Visitor Conversions: A visitor conversion occurs when a user completes the action you've directed them to take, such as: subscribe to an email campaign, make a purchase online, download a whitepaper, view a video, subscribe to a service, complete an online form, write a review, complete a quiz, provide feedback or complete some other action. The important thing to remember is in order to measure and manage conversions, you must define the conversion criteria at the beginning so you can ensure you have the proper conversion paths built into your site. You'll also want to assign a value (in currency) to a conversion. Once the site is launched and spend is occurring on marketing, then an ROI can be calculated from the marketing expense and conversion value. You can also use your web analytics tool to capture your conversions goals and allow you to manage and improve campaign performance based on the conversion values you are seeing.

Retain Existing Customers: It's a fact that through normal attrition most companies lose customers every year. Percentages may vary, but all business owners know it costs more money to recruit a new customer than it does to retain an old one. Retention strategies can be powerful and may include things like personalized content, cookies to make future visits more efficient, loyalty offers, frequent communication, excellent customer service, social interaction and other compelling strategies.

Generate Revenue via Bookings, Banners, and Advertising: Affiliate websites require time and energy. There's an initial investment required to build a platform and even more investment in marketing is required to drive large volumes of targeted traffic to the site which needs to convert visitors to generate a reasonable income. Industry standard conversion rates vary, but a good rule of thumb is between 3% and 5%. So if a site does well then one visitor in twenty will convert. To be profitable, the cost of attracting a visitor must be balanced with the commission paid on conversion plus the cost of setting up and managing the enterprise.

Step 2: Budget

I have used this article many times in my business life; it's amazing how its words ring true through the ages. It's also amazing that many business people don't appear to understand this basic law of business!

The Common Law of Business Balance – John Ruskin 1819 - 1900:

It's unwise to pay too much, but it's worse to pay too little. When you pay too much, you lose a little money - that's all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do. The common law of business balance prohibits paying a little and getting a lot - it can't be done. If you deal with the lowest bidder, it is well to

add something for the risk you run, and if you do that you will have enough to pay for something better.

The budget you allocate to your website project must take into account the cost, plus an anticipated return on investment and a timescale required for a reasonable return on investment.

A website budget must include:

- The cost of internal resources required to support the project from discovery to completion, and management of the project after launch.
- The cost of external resources such as consultants, designers, developers, media production, copywriting, hosting, ongoing support, maintenance, and marketing.

Costs may vary, depending on the size of the project, from a few thousand to maybe tens or even hundreds of thousands. If you aren't able to support your website project with a sufficient budget you may need to reconsider what it is you are trying to achieve in the first place.

Step 3: Planning

When it comes to planning the technical elements of your website project, you need to have the following technology considerations in mind.

Multiple Display Types

The first thing to remember is that users will access your website using a multitude of devices and this needs to be planned for. Display screens vary in size enormously and the most common screen sizes are:

- Desktops and laptops: 15-21 inches
- Tables: 7-10 inches
- Smartphones: 4-7 inches
- Televisions: 5-100 inches!

Make sure your project gives the user the best possible experience on whatever device they use.

Platforms

There are many good products available in the marketplace, some are free to use (Open Source) and some have fees. When it comes to determining which website platform you are coming to use, here is a list of options:

- Free Website Builder (often from ISP or host)
- Simple HTML Site (Dreamweaver)
- Basic CMS (Open Source)
- Advanced CMS (Open Source)

- Full Custom (Custom Coded)

An appropriate site platform is chosen based on the scope of the project and required functionality. The decision on which one will work best for your website project is something your IT department or a digital marketing consultant can guide you on.

Responsive Design

Given Google's emphasis on mobile-friendly sites, we recommend responsive design no matter what your industry or goal. Responsive design is a method for building websites that uses advanced code to automatically resize, reposition, show and hide content according to the screen size of the user. So if a customer were to start viewing your website from their laptop then jump to their smartphone, the quality of their user experience should be the same regardless of what device they are on. In the figure below we show how a website should automatically adjust across various devices when built to be responsive.

Figure 5: Demonstrating the Concept of Responsive Design

Responsive Design + Mobile Site

Some projects use responsive for desktop, laptop and tablet use, and a separate mobile site for phone use. This is best suited if you have a web app designed for phones only. The drawback with this is that you have two sets of content to maintain.

Mobile Only Site

If the site is targeted at mobile users only, then a mobile site may be appropriate. These sites are relatively rare but are growing in number.

Retina Display Ready

More people are now buying devices that include high-resolution screens.

Retina display is a marketing term developed by Apple to refer to devices and monitors that have a resolution and pixel density so high – roughly 300 or more pixels per inch – that a person is unable to discern the individual pixels at a normal viewing distance. They essentially work by cramming more pixels per inch (PPI) onto the display.

In practice, Apple has converted a device's display to retina by doubling the number of pixels in each direction, quadrupling the total resolution. This increase creates a sharper interface at the same physical dimensions. In principle, a retina display is as good - or at least, as high-resolution - as a screen could ever need to be, since increasing the resolution wouldn't be noticeable by the average human eye.

Steps must be taken in the planning and development stage to ensure images are properly sized and that other graphics are prepared in the right way. Logos and icons, for example, may have to be converted to scalable vector graphic format (SVG).

Content Delivery Networks

According to Wikipedia:

> *A content delivery network or content distribution network (CDN) is a large distributed system of servers deployed in multiple data centers across the Internet. The goal of a CDN is to serve content to end-users with high availability and high performance. CDNs serve a large fraction of the Internet content today, including web objects (text, graphics and scripts), downloadable objects (media files, software, and documents), applications (eCommerce, portals), live streaming media, on-demand streaming media, and social networks.*

Almost every project that we deliver now is connected to a CDN. The main advantage is the page speed and image load time. However, there are other very useful premium services offered by suppliers such as "zero downtime" (for eCommerce this is a must as downtime costs money) and "denial of service" attack protection (required for high profile sites such as government agencies) at very reasonable prices.

Hosting

When it comes to hosting, you get what you pay for. Physical resources include disk space, CPU allocation, memory and bandwidth use, systems backup and recovery, plus the quality of infrastructure within the data center. The most important factors, in my opinion, are uptime and true 24/7/365 support. The cheap hosting suppliers offer the poorest resources, oldest infrastructure and in a lot of cases non-existent support. You can't afford a cheap hosting company!

These are the things you should look for in a hosting company:

Security of Data Center: Multi-tiered security measures to ensure the physical security of your data, including 24/7/365 professional security, video surveillance, biometric retinal scanning and a mantrap entry point.

Location: Located in an area with a relatively stable climate and is free from threats of natural disasters.

Power: UPS (Uninterruptible Power Supply) systems for protection against power spikes and outages backed up by diesel generators. Onsite fuel reserves to provide multiple days of uninterrupted availability.

Network: Complete network redundancy at all key points to ensure uninterrupted connections, from ISPs, peers, border routers and core routers.

Audit: Audited by an external body to ensure that procedures and controls are formally and thoroughly reviewed.

Size of Plan: The size of hosting plans is determined by the physical resources that are required to run the application. The number of visitors that use the site every day plus the size (in terms of data) and number of pages that are viewed are the main factors to take into account. Small sites can sit comfortably on a "shared" low cost hosting plan. However, hosting costs can climb dramatically if a virtual or dedicated servers are required. Large applications may need a group of servers.

Site Architecture

Use a program such as PowerPoint to create an organization chart. Home page at the top with subpages arranged beneath. Include all static pages and other pages such as forms and pages with advanced functionality. Think about how site search will work and how search categories can be organized to aid the user.

Conversion Funnels

A conversion funnel is a group of pages that guide the user to the conversion goal. The number of funnels in a website will vary, but it's usually between two and four depending on the needs of the business.

Page Templates

Websites optimized for conversion contain different page templates that are specifically designed with a purpose. Here are some of the main page templates we recommend having designed and built:

- Home page
- Product category view (eCommerce)
- Product detail view (eCommerce)
- Checkout pages (eCommerce)
- Forms

- Landing pages (with variants for A/B testing)
- Inside pages (possibly two or three styles depending on the purpose of the page)

Copywriting and Content Plan

Don't underestimate the importance of this part of the project. A compelling, converting website needs a lot of good quality content that speaks to your target market and is optimized for the search engines.

Image Acquisition

High quality images and graphics can transform an ordinary website into a great website. Professional photography is always the best route to go. Stock photography can be a good option too. If you do use purchased images on your site, be sure you have the proper licensing to use them in the manner you are using them. The last thing you want is to spend all your time building a great website only to get hit by an image licensing suit. Also, remember, retina and high-resolution displays require large high-resolution images (around 250 dots per inch, or DPI).

SEO Considerations

There are important technical factors, that influence SERP (search engine ranking positions), to account for when planning a new website project. The code of the site must be written in such a way to make the site search engine friendly. Here are some technical SEO elements you should consider:

- Creating an HTML Sitemap page on your site
- Make sure you site is mobile-friendly
- Keep website code "clean" and easy for search spiders to index
- Page speed (search engines like sites that load fast)
- Regularly check for web server errors using Google Webmaster Tools
- Avoid flash and text contained in images

Technical SEO is an important factor that should not be overlooked.

Digital Marketing Strategy

Your website may be the center of your digital marketing strategy but there is no point in investing in a website if nobody ever sees or uses it. That's why in conjunction with your website, you need to have a complete marketing plan prepared to include other digital tactics that are designed to reach your ideal customer, with an engaging message, delivered through the right channel at the perfect time.

Step 4: Design and Build

With the planning complete, now the exciting part of the project begins. Let's look at the various stages of designing and building your website.

Wireframe Development

"Form follows function" is a principle associated with modernist architecture and industrial design in the 20th century. The principle is that the shape of a building or object should be primarily based upon its intended function or purpose. The same applies to website projects. Design is very important, but we doubt the purpose of the project is to win a beauty contest!

Wireframe page designs should be used to develop web page ideas and concepts, without being clouded with graphics, so that the finished page is usable and effective. Important technical elements of the page, such as navigation, banners, content, conversion funnels and calls to action need to be properly positioned so that the page works correctly for the user.

Wireframes need to be produced for desktop, tablet and mobile devices so that elements can be viewed and understood across device types.

Graphic Design

Almost all of the projects that we are involved with require custom graphics design. Design templates can be sourced, but it's unlikely a template design and layout will perform better than a unique design that has been produced for a specific project.

The graphics design element of a project usually starts off with about three concepts. These can be whittled down to one that can be fine-tuned to create the final design of your site.

For responsive design, it's important to remember that the same content is shared across all devices. A common mistake is to switch font faces and other page elements across devices.

Keep as many common design elements as possible across devices as this will make it easier to manage the site.

Site Development

If the planning stage has been successful then the development stage should be relatively quick and easy. Important points:

- Run the project on a project management system and maintain project communications within the project management system
- Hold frequent (weekly) project meetings with all stakeholders
- Develop on a staging server
- Put the development site behind a login so that only stakeholders can see it
- Block search engines from indexing the development site using robots.txt

When the site is completed, it is important that all stakeholders review it and provide a final sign off. It is easier to implement changes when a site is in development than after it has been launched.

Step 5: Test and Debug

When development is complete the website must be thoroughly tested. Technical functions need to be checked, and cross browser and cross device testing must be carried out to ensure everything is working properly.

Here are just some of the quality assurance (QA) checks we like to do at WSI before we launch every site:

Content Check: Conduct a full review of the site's content for spelling and grammar.

Forms Check: Test out all of the forms on your site by completing each form like a visitor would. Does the form submit properly? Do any errors occur? Do you get directed to a thank you page? Does the form submission go to right people/ person?

Payment Check: If it's an eCommerce website, process test orders and ensure all autoresponders and system emails are working.

Page Speed: Have your IT team or site developer run stress tests on the site to ensure it will perform at an optimal speed. Check the speed of each page using Google's online PageSpeed Insights tool to ensure your web pages load fast on all devices.

Server Test: Your IT team or site developer can run specific server tests to ensure there are not overall site speed and availability issues.

Browser Check: Test the site on various browsers (Chrome, Firefox, Safari and Explorer) to ensure there are not browser-specific issues.

Design Check: Have your graphic designer go through the site and ensure images are displaying properly and the correct fonts and styles are being used.

Don't underestimate the importance of this part of the process and when developing your website project plan, be sure there is enough time allocated to having all the necessary QA checks and completed properly.

Step 6: Pre and Post Launch Activities

Once you've thoroughly tested and debugged your site, there are still a number of elements that need to be set-up prior to launching or re-launching a website project. It's important to have a checklist of tasks to ensure an optimal user experience and no loss of existing search engine positions. These may include:

- If hosted with the website, check email accounts are properly set up
- Check all outbound links including links to social media accounts
- Implement 301 redirects, which tell search engines that page names have changed
- Change DNS or "A" record for the domain
- If eCommerce, test payment gateway with a live purchase
- Set canonical URLs (an HTML element that helps webmasters prevent duplicate content issues by specifying the "canonical" (meaning preferred) version of a web page)
- Set up Google Webmasters account
- Set up a dynamic site map on the website (dynamic meaning that new pages added are automatically added to the sitemap)
- Submit site map address (including RSS Feed) to webmaster account
- Check in-site links after DNS change, and if required find and replace incorrect links
- Set upon Content Delivery Network
- Set up SSL (website security)
- Set robots.txt file
- Implement Google (or other) analytics scripts
- Implement remarketing code (if needed)

Step 7: Analyze and Improve

The completion of the build and launch stages of the project are not the end but merely the beginning. All successful websites, if properly measured and managed, improve with age. With advanced analytics analysis, split testing, layout and navigation experiments, new products and new content, continuous improvement can be maintained. In doing all of this, you can also ensure your website remains the strong foundational component to your overall digital marketing strategy that it needs to be.

About the Author

Over a decade ago following a successful career in Hi Tech Senior Management, (culminating with a seat on the main board of a US Amex Listed Corporation), Chris made a "lifestyle" change and joined WSI in 2002. Coming from an Engineering background, the technical side of web technology greatly appealed to Chris. He opened a WSI "Solutions Center" in 2007 located in the UK and since then has built hundreds of successful complex technical web solutions for both direct clients and WSI consultants.

During his time at WSI Chris has won many awards for his projects, he was an initial member of the Internet Consultant Advisory Council, and Chairman of the WSI Products and Technology Committee. Most recently Chris has become involved in Multi-Channel Marketing solutions primarily for "Regulated Industries", main customers include Banks and Pharmaceutical companies.

About WSI

WSI is a digital marketing company with a strong international presence. Our Digital Marketing Consultants use their knowledge and expertise to make a difference for businesses all around the world. Headquartered in Toronto, Canada, we also have offices in over 80 countries. We're a powerful network of marketers who strive to discover, analyze, build and implement digital solutions that win digital marketing awards and help businesses succeed online.

Over the last 20 years, WSI has won multiple digital marketing awards for our solutions by adapting to the constantly shifting landscape of the Internet. We take pride in helping businesses make the most of the dollars they spend on digital marketing.

Ready to move ahead and discuss a project with a local Digital Marketing Consultant? Get in touch with one of our experts now by visiting www.wsiworld.com/get-in-touch-with-an-expert

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i HubSpot. The Definition of a Buyer Persona [in Under 100 Words], blog. HubSpot.com/marketing/buyer-persona-definition-under-100-sr