

Website Development



Abridged extract from
The Website Manager's Handbook
(Chapter 3) by Shane Diffily

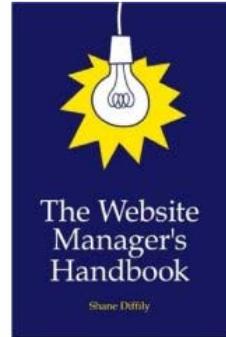
*"Genuinely useful for helping think through the key
issues of website management"*

Gerry McGovern. Author of *Killer Web Content*.

The Website Manager's Handbook

This document contains an abridged extract from "Chapter 3: Website Development" of *The Website Manager's Handbook* by Shane Diffily.

The Website Manager's Handbook gives you a practical model for the management and maintenance of your website or intranet. Through it you can learn about all the processes, people, technology and other resources you need to manage a successful site.



Join the hundreds of web professionals and universities who rely on *The Website Manager's Handbook* for advice about online operations.

Visit www.diffily.com/book for more.

The Website Manager's Handbook

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Praise for *The Website Manager's Handbook*

"Very clear and well written...a lot of practical depth...I'm sure that someone managing—particularly a large website—would find it genuinely useful to help them think through the key issues in website management."

Gerry McGovern. Author of *Content Critical*.

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What is Web Development?

Website Development is a process for creating a new website or implementing changes to one already in use, e.g. adding a significant new section to a live site.

In simple terms, the process represents a framework within which all activities—from inception to review (and eventual demise, if necessary)—can take place.

There are 8 steps in the development process. These are:

- **Planning:** Decide why you want a website and what to create.
- **Content:** Create a list of the content you want.
- **Design:** Create a design for displaying the content.
- **Construction:** Write the code and load up your content.
- **Test:** Make sure everything works properly.
- **Hosting:** Choose a domain name & find a place to put your site on the internet.
- **Publicity:** Build traffic via publicity the site.

- **Review:** Review the site at intervals it to make sure it succeeds.

Of course, Website Development does not happen just for fun—it must be initiated in some way.

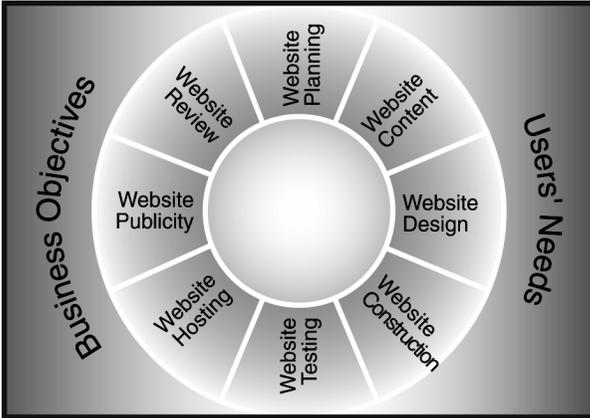


Figure 1. The Website Development Cycle.

As can be seen above, the development process takes place within the bounds of Business Goals and User Needs. It is these that initiate and guide the course of planning, design, content, etc. Until you explore your goals and users, your website simply has no reason to exist.

As such, the first step for creating your website is to decide why you want it and who you are making it for.

Before You Begin

Although Website Development encompasses a set of quite specialist activities, the processes that underlie it are the same as for any other project.

For example, it needs a team to carry out the work, a timescale to operate within and a set of resources to sustain it. As such, when before starting work the following basic elements must be accounted for:

- **Project objective**, e.g. a new website, a new section of content, a new online application.
- **Project team**, i.e. a project leader, a content producer, a designer, a coder & any other specialist skills.
- **Budget**: Refer to The Website Manager's Handbook for insight on using the concept of Website Scale to plan project budgets.
- **Timeframe**: Refer to The Website Manager's Handbook for insight on using the concept of Website Scale to plan project timeframes.
- **Analysis of project risks, dependencies and assumptions**, e.g. what could go wrong? What contingencies are in place, etc.
- **A system for project management & communication**, e.g. weekly meetings, email, etc.

Website Planning

Website Planning is a process for identifying the Business Objectives and User Needs that drive the Development Cycle.

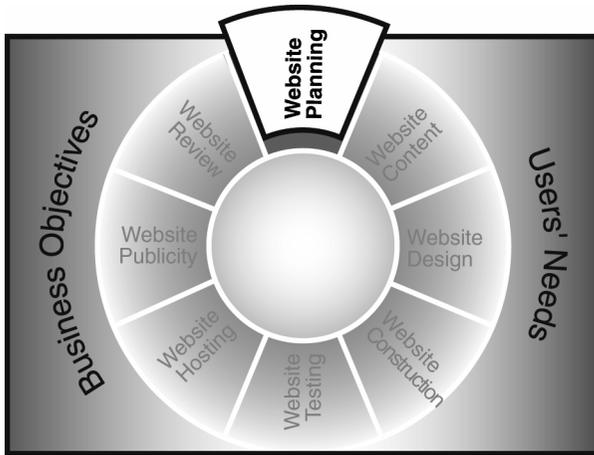


Figure 2. Website Planning as a phase of the Website Development Cycle.

This is the first step for building a successful website. It allows you to explore some of the most fundamental issues of site development. For example:

- Why are we doing this?

- What value will our website produce (from the investment we are making)?
- Who is our audience?
- What do they want?

Business Goals

Nobody is forcing you to create a website. You do it because you want to. The hope is that you have a convincing and compelling motive in mind before you begin.

There are many excellent reasons for developing a website. Some of the most common include:

- **To earn revenue:** A website can attract buyers.
- **To influence people:** Think of the website of Barack Obama in 2008.
- **To create cost savings:** By putting common information online, you can reduce the amount of time staff spend answering phones.

One of the most useful ways to identify your goals is to convene a workshop of stakeholders who have a strong interest in the site. These people can then agree the reasons why a website represents good value.

A starting point for such discussions could be the mission of your organisation itself. For example, if you are a charity and your mission is “To foster and integrate marginalised communities into society” – a website could assist this by:

- Demonstrating the value of the work you do.
- Attracting donations from the public.

Setting the scene

Although stakeholders may be enthusiastic about going online, they may not have much experience of the factors that drive web production.

As such – before commencing such a session – it can be worthwhile inviting in a web expert to speak about current trends and successes. This can be useful for equipping delegates with the knowledge they need to understand the types of website that could be built, and to narrow in on the one that is most suitable for them.

Such a review could include:

- **Industry & market trends:** What your peers are doing.
- **Technology:** What new content & design options are available.
- **Online society & culture:** How audiences are behaving online.

The cost of development

It is also important that stakeholders understand constraints on development.

There is an old saying in the consulting business:

"We can give you 3 things:

- A high quality deliverable.
- High speed turnaround.
- Low cost.

Now, choose any two."

The most important constraints on website development are budget and time. They set absolute limits to what is possible.

For example, you may want an all-singing, all-dancing website to go live in 5 weeks – but if you only have the budget to employ 1 designer and have not yet started to create any of the content you need – such an outcome is merely aspirational.

The overall lesson is ... “Cut your coat according to your cloth”.

Only build what you can afford in time and money – both now and with regard to the effort you will need to invest in ongoing maintenance.

Setting Smart Goals

When choosing goals for your website, it is not enough simply to produce eloquently worded statements of aspirational intent. Your goals are commitments to yourself (and to whomever pays your bills) that the site will deliver real, tangible value.

Your goals must be reasonable and actionable. That is, they must be SMART :

- **Specific.** Goals must focus on a particular area of activity and not be so broad as to be meaningless, e.g. “Reduce telephone calls about closing dates by 50% by putting highly accurate, clearly written, easily navigable information about closing dates online”.
- **Measurable.** It should be possible to gauge when a Goal has been achieved. For example, if a website Goal is to “increase awareness”, the key measure will be public knowledge. A survey can help establish if that has happened and how much of it was due to the online campaign.
- **Achievable.** There is no point setting a Goal that cannot be achieved, e.g. would the Goal “to increase revenue by 250%” be achievable?

- **Realistic.** A target must also be realistic. That is, it may be possible to achieve a 250% increase in revenue, but it would require 100 extra staff. How realistic is it that these resources will be available?
- **Timely.** Finally, the Goals must be timely, meaning they should be bound by a timeframe. For example, you may set yourself 12 months within which to achieve your target.

User Needs

Who do you want to use your website? What do they want?

Those are the key questions you need to answer about your users.

There is often confusion about who the users of a website are. This frequently arises because data about online traffic misleads people into thinking their websites are a success, when in fact they are failing.

For example, your traffic statistics might show that your site attracts thousands of visitors from many places worldwide (e.g. Africa) and that they read hundreds of articles on your site, again and again.

This might seem like a success. You could be forgiven for thinking you are serving your users well.

However, unless these people are members of your target audience, they must not be counted as users of your site. Their activity is inconsequential and must be ignored.

This might sound strange, but the reason is very simple.

You are spending limited resources on your website in order to generate maximum value. As such, you cannot be concerned about everyone -

you must only focus on those users who are most important to you and steadfastly ignore everyone else.

Successful websites do this. Websites that fail, do the opposite.

As such, before you create a website you must decide exactly who you are aiming it at.

Your website audience is unlikely to be a homogeneous mass. Most organisations find they have at least two or three core audiences.

When you know who you are building the site for, you can compare them to your goals and then decide what content to give them by researching their needs.

Researching User Needs

Without doubt, the best way to establish the needs of a website audience is to get out and talk to them. This ensures the planned site will reflect 'actual' user preferences—not those you think users want. Some of the most popular research techniques include:

- Online survey.
- Focus group.
- Examine website feedback.

Based on all the data gathered, you can then create Personas.

A persona is a description of an idealised website visitor that matches the attributes of the audience being targeted. Personas have been shown to be of great assistance when gathering information about user needs. This is because they provide a focal point for discussing requirements.

"Sally is 25. She attends college where she is studying engineering. She is interested in the environment but has only a limited understanding of Global Warming. However, if made more aware of the issues, she would like to get involved somehow. Sally feels intimidated by the variety of ecological organisations and is not sure how to contribute."



Figure 3. An example of a website Persona.

When you know who your Personas are, you are ready to start preparing content for them.

Website Content

Website content encompasses all the information and applications available on your website.

It is surprising how alike content is across many websites. While file formats can vary, the purpose for which content is used is very similar.

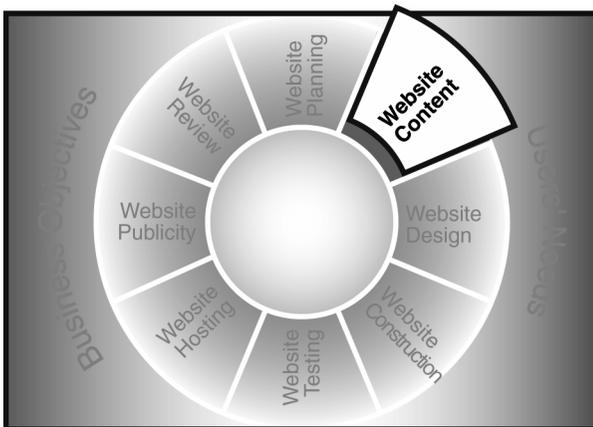


Figure 4. Website Content as a phase of the Website Development Cycle.

Why is this?

Content is the same because the intention of most websites is the same - to bring visitors on a journey towards an intended destination.

Content Journey

Users to your website are on a journey – particularly first time visitors.

They usually know little or nothing about your organisation. They are relying on you to give them all the information they need to get to know you - and then to make a decision, e.g. to contact you about a funding opportunity.

It is your job to make sure that the content you provide caters for all their information needs and leads them to decide in your favour.

For example, imagine a person interested in your charity comes to your website.

She may have seen a reference to you in a magazine about some interesting work you are doing. Otherwise, she knows nothing about you.

However, she liked what she read in the journal and has an interest in your discipline. If she feels you are competent and trustworthy, she would like to make a donation.

What is her online journey and how should you cater for it?

In this situation, the journey is simple:

Persuade her about the bona-fides of your organisation

Give her a basic introduction to the services & value you provide.

Compel her to act

Give her everything she needs to decide that you are a great organisation to support and make it easy to make a donation. Include a clear and explicit call-to-action that compels her to act, e.g. "Save a whale. Click here to donate now".

Reassure her she is doing the right thing

Allow her to stay in touch with you online after (or even before) she has awarded the contract. For example, allow her to subscribe to a blog, an email newsletter, a Twitter feed or a Facebook page. Give her information that makes her feel she has done the right thing by trusting you.

These 3 steps of Persuade, Compel and Reassure occur again and again.

To create content, you need to understand how the journey is expressed for the subject matter of your website. You can then draw up an inventory of content features that support it.

This Content Inventory is simple a list of everything to be published on the website.

Warning! Do you have the time?

Be careful when creating a big content inventory. Will you have the time and budget to create everything on it?

Experience shows very few web projects allow enough time for content to be authored to a reasonable standard. Much more time is usually allowed for design, which - although important - is merely a framework for displaying what people actually want, i.e. information and applications.

For example, a 500-word page of good web content can take up to 4.5 hours to create from scratch per page. If you have 100 pages of content, that equates to almost 3 months of fulltime activity.

Surprising, but true.

Of course, not every page takes 4.5 hours, but on average that is how long it takes.

As such, if you are planning to publish lots of new content - and if you want it to be of a high standard - allow plenty of time for it to be created.

Content Formats

After a list of features have been created, you need to select formats for putting them online. For example, a testimonial could be expressed in video format, as an audio podcast or as simple text with a photo.

The best way to decide what formats to choose is to consider:

- **Budget:** What can you afford?
- **Audience:** Does your audience have any special needs, e.g. if they don't have broadband, you should not use video.
- **Production & maintenance issues:** Will you be able to maintain the content easily overtime?
- **Experience of peers & industry:** What type of content are your peers using?
- **Emerging trends, the law, policies, etc.:** Are there any constraints on content because of the law, e.g. privacy issues, etc.

Among the most widely used content formats on the web are:

- Plain text

- Video
- Audio
- Flash
- PDF
- Other

Your task is to identify the formats you believe will deliver maximum value.

Plain text

Plain text is the most straightforward of all content to be published on the web. This is because it can be authored in any word processor (e.g. Microsoft Word) and viewed in any web browser, whether desktop or mobile.

Video & audio

Due to the growth in broadband, consumption of video and audio has mushroomed. However, it can be expensive to produce on a consistent basis. Due to limited resources, it is often a better idea to spend your money producing many high quality pages of text, instead of a few videos that quickly go out-of-date.

Flash

Flash is a format that allows for highly interactive applications, games and other content to be published online. However, it is also expensive to produce and is not suitable in all circumstances.

Research by User Interface Engineering suggests that the best use for Flash remains as a supplementary content format within a standard HTML-based site. Their recommendations include:

- To illustrate an event that occurs over time, e.g. an interactive animation that shows how greenhouse gases contribute to Global Warming.
- To illustrate an event that occurs within a large space, e.g. the movement of power in a power grid.
- To illustrate the relationships between objects or to clarify choices, e.g. to show the configuration options on a piece of machinery.
- To deliver rich media content such as online games.

Portable Document Format (PDF)

The main advantage of PDF is that it preserves the look of original documents while also keeping filesize to a minimum. However, there is a lot of evidence that PDFs are disliked by web users . As such, you should use them sparingly.

Other Content Options

Widgets

An embedded feature of content from another site, e.g. today's weather from weather.com.

Mashups

A link between data on your site and some other site, e.g. Google Maps on LikePlace.ie.

Other

Multiple new content options are emerging all the time. Currently, many of the most popular are 'hosted' services, e.g. content about you that is hosted on other websites. This includes social networks and User Generated Content sites, such as Facebook, LinkedIn, YouTube and Twitter. Such services have both advantages and disadvantages, and are generally very time intensive. As such - as with all other content - the main consideration is whether you have enough time and people to manage them adequately?

Now that your inventory is complete, the design of the website can commence.

Website Design

Design is “the process of originating and developing a plan for an aesthetic and functional object, which usually requires considerable research, thought, modelling and iterative adjustment” .

With regard to the web, this involves the arrangement of content into graphical models that can be used as a basis for coding a site.

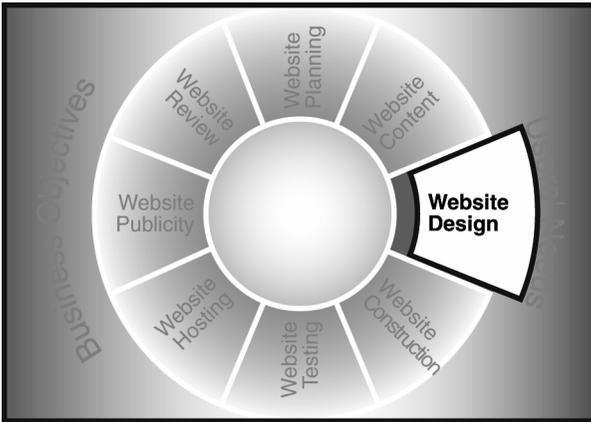


Figure 5. Website Design as a phase of the Website Development Cycle.

Some of the ways in which good design can add value to your site include:

- By facilitating a visitor's online experience, e.g. through clear navigation and an intuitive structure.
- By communicating information, e.g. through diagrams and charts.
- By transmitting brand values, e.g. by using corporate colours.
- By creating or reinforcing a desired emotional response, e.g. through an appropriate use of imagery, colour and other elements.

The Website Design Process

Website Design is composed of several distinct disciplines, each of which embraces a range of skills. The sequence in which these are employed tends to follow a given pattern, encompassing the following steps:

- Information Architecture
- Interaction Design
- Interface Design
- Navigation Design
- Information Design
- Visual Design

It should be noted that there is no clearly defined point of separation between these activities. In fact, some of them occur in parallel. For example, Interaction and Navigation Design handle a very similar set of challenges, i.e. how to move through a website.

Information Architecture

Information Architecture is concerned with organising content on a website. The Information Architecture for any given site can typically be illustrated in the form of a tree diagram, as shown below.

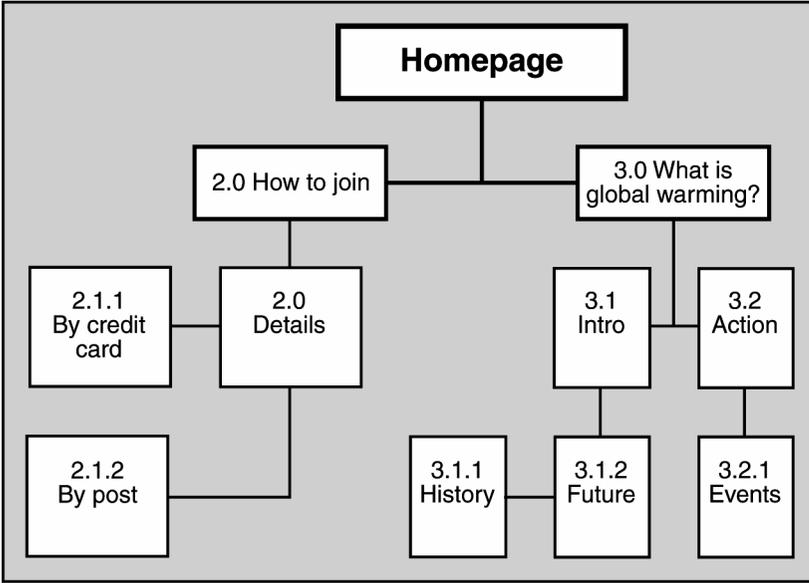


Figure 6. A simple Information Architecture.

Various usability methods can be used to convert a Content Inventory into an Information Architecture. (See 'Usability explained' below.)

Interaction Design

Interaction Design is a system for structuring and generating actions on a website in response to user behaviour.

For example, imagine you wish to book accommodation via the web and your chosen hotel has created an online form to do so. What is the first piece of information you will want to tell them? Probably the date you intend to arrive. As such, the hotel should ensure a field for "Check-in" is presented as the first step in the reservation process.

In this way, Interaction Design is about matching visitor expectations to a flow of information.

Interface Design

Interface Design is concerned with the selection of web elements that facilitate interaction with site visitors. Such features generally encompass links, buttons, check boxes, etc .

Navigation Design

Navigation Design is concerned with helping people orient themselves within a website, and also move through it.

The most important concerns when designing such a system are to ensure visitors always know the answer to each of the following questions:

- Where am I?
- How did I get here?
- How can I return to where I came from?
- Where can I go from here?

Many systems of navigation are used to support these, including:

- Search
- Sitemap
- A-Z Index
- Global Navigation
- Side Navigation
- Breadcrumb Navigation

A mix of these (and more not listed) are used on most websites.

Information Design

Information Design is concerned with the effective presentation of content on a screen. The objective is to optimise communication by organising information in a cohesive and pleasing layout.

When creating a layout, the principle output of the Designer is called a 'wireframe'.

A wireframe is an outline drawing of a possible arrangement of web content. It often does not contain any colour or other visual elements. It simply shows where content could be placed for the purposes of good communication. It is up to a Graphic Designer to then take the Wireframes and convert it into a full visual design.

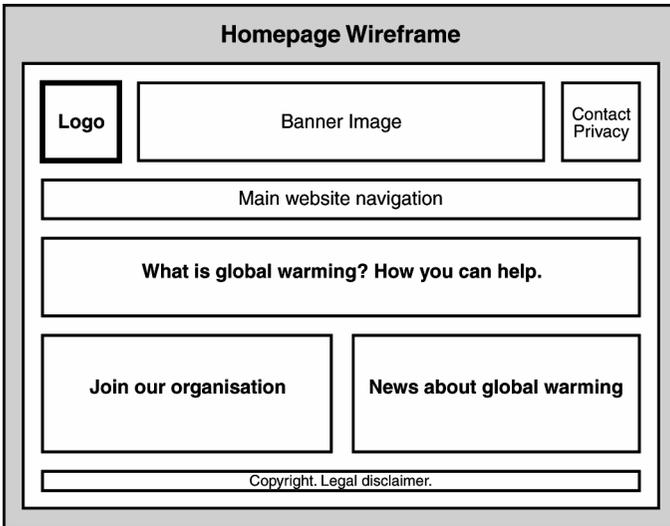


Figure 7. An example of a wireframe for the homepage of a website about global warming.

A set of proforma Wireframes have been created for you. These wireframes include advice on the most important content that should appear on your site.

Visual Design

Visual Design is what most people think of when they consider web design is, i.e. cool online graphics.

However, this phase of production is much too important to be decided based on what is thought 'cool' or not. Rather, it should be based on how well it matches:

- The goals of the site.
- The expectations of users.
- The values of your organisation.

When evaluating a Visual Design, it is crucial that analysis remain as dispassionate as possible. While everybody has colour preferences, they are usually not relevant. Instead, you should call on the expertise of the Graphic Designer (or usability data) to understand the merits of a potential solution.

Having said that, some type of debate is probably inevitable, simply because Visual Design is often the most sensitive phase of all site development. The challenge is to keep deliberations focussed and prevent a battle emerging over colours or images.

In this regard, it is worth emphasising that the expertise of the Designer (together with the results of any usability studies) should be paramount. Only she has the training, skills and experience necessary to determine what does and does not work visually on the web. Based on this advice you can then select a preferred solution.

Usability Explained

Usability is a term often used during website development. It has 2 distinct definitions.

Definition 1: Usability encompasses quality attributes that determine how easy a design is to use.

There are 5 attributes of something that is “usable” :

- It is easy to learn how to use it.
- It is efficient of use
- It is easy to remember how to use it.
- The possibility of errors happening is quite low.
- People feel satisfied when using it.

Definition 2: Usability refers to methods used to achieve ‘usability’ during the design process.

These methods are also referred to as User Centered Design, User Experience Design or UX Design. Some methods include (some of these are explained in this document):

- Personas
- Card sorting
- Wireframes
- Expert/heuristic review

Your designer will employ whatever methods are appropriate to produce a usable website, within the constraints of your budget.

Website Construction

Website Construction is a process for converting content and design into web code, usually HTML.

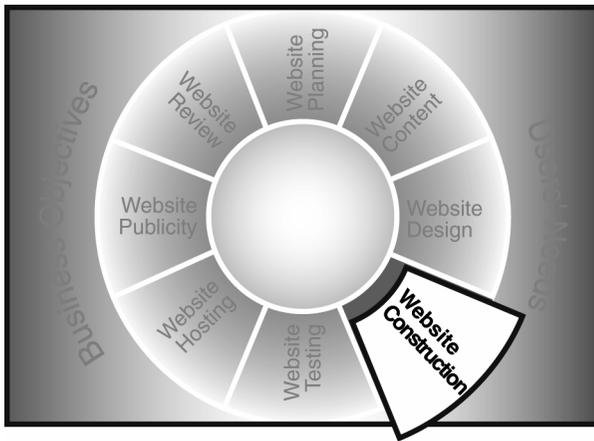


Figure 8. Website Construction as a phase of the Development Cycle.

There are a series of guidelines that you need to follow to make sure your website conforms to best practice. These guidelines encompass:

- Browser compatibility.
- Screen resolution.

- Web accessibility.
- Other, e.g. coding languages, metadata, character sets, analytics, etc.

The most important are summarised below.

Browser Compatibility

A browser is the software used to display a website on your computer. There are several of these products available (as well as different versions for each product), and each of them can display a site slightly differently.

To ensure your site is presented correctly on the broadest possible range of computers, you must tell your designer and coder to make sure it is fully compatible with the following browsers.

Windows Vista, XP, 2000, NT, ME, 98, 95	Apple	Other, i.e. Linux®, Sun®, Unix®.
Internet Explorer	Apple Safari™	Firefox
Netscape	Internet Explorer (discontinued)	Konqueror™
Firefox	Netscape	Mozilla
Opera	Firefox	Netscape
Mozilla™	Opera	Chimera™
AOL Browser		

Figure 9. Common desktop browsers on popular Operating Systems

A good way to check what software people use to view your website is by analysing your web traffic analytics.

Screen Resolution

Screen resolution defines the number of pixels that can be displayed on a computer monitor. This number is increasing all the time. However adoption rates vary, which means that you cannot create your website for the largest possible size. If you do, many people will not be able to use your site properly.

Instead, you need to create your site so that it can be optimally displayed on the largest number of screens, e.g. 99% of all users.

The current accepted standard for doing so is 1024 pixels wide by 768 pixels high.

Again, a good way to check what screen resolution people use for viewing your website is to analyse your website traffic analytics.

Web Accessibility

Web Accessibility is a principle that tries to make sure visitors with disabilities can locate, navigate, read and understand web content. The main impairments covered by this are:

- Vision, e.g. blindness, colour blindness.
- Hearing, e.g. deafness.
- Physical and speech, e.g. restricted use of limbs.
- Cognitive, e.g. learning difficulties.

There are many content, design and coding techniques that can make your website easier to use by people with a disability. For instance, a well-made website can be easily used by a blind person using a program called a 'Screen Reader'. This software vocalises content on a page.

Unfortunately, carelessness or lack of foresight during development can render a website unusable to many.

As such, many organisations follow the guidelines of the Web Accessibility Initiative (WAI).

This organisation has created a set of standards called the Web Content Accessibility Guidelines (WCAG) – in 3 levels (A, AA & AAA) – that, when followed, make a website accessible.

However, accessibility is not just about code

The way you write content can also influence whether you meet the WCAG standard or not. In general, you should aim for clarity and simplicity in writing.

Website Testing

Website Testing is a process for evaluating the conformance of a site to an agreed set of guidelines.

The purpose of testing is to ensure your website is capable of operating to a minimum acceptable standard, in order to meet the Goals that have been set for it.

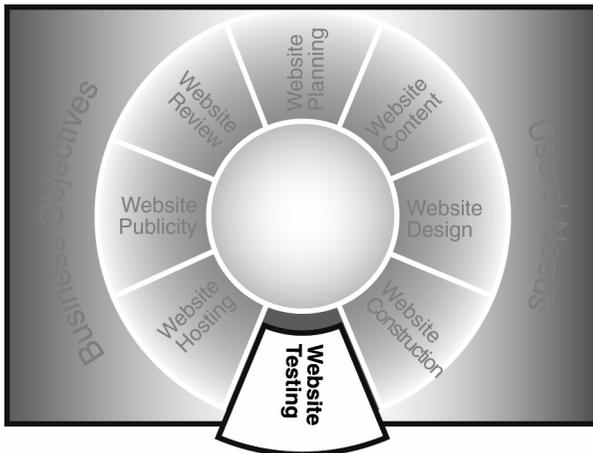


Figure 10. Website Testing as a phase of the Website Development Cycle.

Website Testing encompasses many areas – ranging from simple spell checking to a full security review. For convenience, these can be grouped into a catalogue that lists all appropriate methodologies.

A summary of this list is shown below.

The Website Testing Catalogue

Test Method	Description
Code Testing	This tests that all languages conform to accepted code standards.
Design Testing	This tests that all pages conform to the website’s preferred layout and design.
Spelling Testing	This tests that HTML and other code has been inserted in an optimal manner.
Hyperlink Testing	This tests that all links to all documents and assets resolve correctly.
Page Weight Testing	This ensures that all pages conform to the maximum allowed page weight.
Browser Testing	This tests that the website displays correctly across target browsers and Operating Systems.
Usability Testing	This ensures that the website conforms to appropriate practice in the area of usability.
Accessibility Testing	This ensures that the website conforms to the stated level of accessibility outlined in the organisation’s Web Accessibility Policy.
Security Testing	This tests that the website operates with minimum risk in a secure environment.
Functional Testing	This tests that the website operates as expected under normal and error inducing conditions.
Performance Testing	This tests the responsiveness of the website to user actions.

Website Standards Review	This reviews the website against the organisation's Website Standard.
Operational Monitoring	This puts in place procedures for the ongoing monitoring of the site.

Website Hosting

Website Hosting refers to the service that allows a site to be stored on and accessed from the internet.

For most organisations there are only two options in this regard: invest in a self-made infrastructure or find an external host.

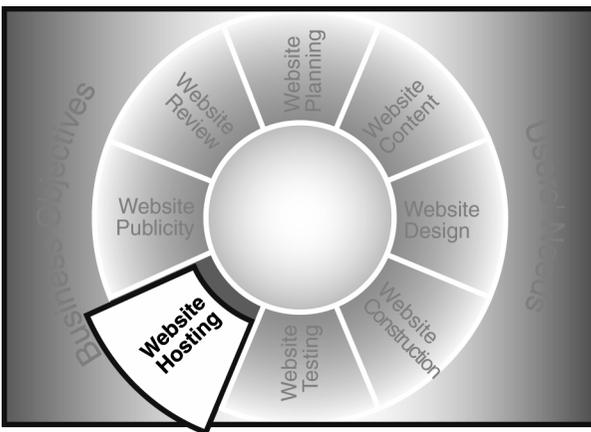


Figure 11. Website Hosting as a phase of the Website Development Cycle.

While a small website with expert staff could probably undertake its own hosting, most customised infrastructures are created for busy Dynamic or

Transactional sites. This is because these sites are driven by a desire to retain total control of everything they do.

As such, the only realistic option for the vast majority of firms is to seek the support of an independent Website Hosting company.

Website Hosting companies number in the thousands. Yet, even a cursory review will show that they are not all the same. Some offer excellent value in terms of disk space, but have very poor service. Others have highly knowledgeable staff, but are undermined by bad technology.

How can you identify the company that is right for you?

The following process can be used to identify suitable candidates:

Step 1. Collect References

Ask your peers (e.g. via a trade organisation) how they handle their own sites.

Step 2. Initial Screening

Contact selected Hosts by email, outlining your requirements. Any company that fails to respond within a timely period can be eliminated.

Step 3. Detailed Screening

Ask about:

- Site hosting & connectivity
- Security arrangements
- Customer service
- Cost

Step 4: Evaluation and Decision

The basic question is “Can this company meet our organisation’s needs, now and in the future”. If the answer is ‘yes’, the decision has been made and final negotiations can begin.

Service Level Agreement (SLA)

An SLA is a contract that stipulates commitments about the quality of service a Host will provide. Some of the most important aspects to include are:

Availability

At least 99.9% should be demanded as a minimum, though up to 100% is offered by many hosts. (Note: 0.1% equates to about 9 hours downtime per year.)

Reliability

At a maximum, no more than 1 or 2 unplanned outages should occur per year, i.e. the site should not be falling over every day.

Responsiveness

There should be no decline in the speed of the website below a certain agreed number of concurrent visitors, e.g. 1000.

Website Addresses/Domain Names

Every device on the internet has a unique number called an IP address attached to it, e.g. 123.456.789.012. However, strings of numbers are difficult to remember, so a parallel system is also available.

This allows addresses called 'Domain Names' to be created from alphabetical characters. A Domain Name is simply a textual label that corresponds to a numerical IP address.

Many variations on the format of a web address are possible. This type of configuration is possible because a web address is composed of several different parts. These are:

- **Sub domain:** By convention this is `www` – but can be different.
- **Second-level domain name:** This is usually the name of your organisation.
- **Top-level domain name:** This can include `.com`, `.org`, `.ie`, etc.

Subdomain	Second Level Domain	Top Level Domain
<code>www</code>	<code>amazon</code>	<code>com</code>

Figure 12. The three main elements of a domain name.

With regard to top-level domains, there is a huge variety to choose from. Some of these are open to anyone, others have highly restricted usage, e.g. `.asia`, `.museum`.

A full list of top-level domains is shown below.

Top level domains

- **.com:** This was initially intended for commercial businesses, but may now be used for almost anything.
- **.edu:** This is supposed to be used by educational institutions, particularly in the USA.

- **.org:** This is intended for the use of non-commercial organisations, e.g. www.unitednations.org •
- **.net:** This was originally intended for organisations such as Internet Service Providers, but may now be used for almost anything.
- **.mil:** This is intended for the military.
- **.gov:** This is for the use of government websites, e.g. www.firstgov.gov
- **.int:** This is for the use of international organisations, e.g. www.europa.eu.int
- **.eu:** This is for the use of organisations or individuals based within the EU.
- **.biz:** This is intended for businesses only.
- **.info:** This is intended for any organisation that wants to publish informational content.
- **.museum:** This is for museums.
- **.name:** This is for personal names.
- **.pro:** This is used for various professional organisations or individuals.
- **.coop:** This is for the use of genuine co-operative organisations.
- **.aero:** This is for the use of the aviation industry.
- **.jobs:** This is proposed for use in the recruitment industry.
- **.travel:** This is proposed for use in the travel industry.
- **.post:** This is proposed for use in the postal industry.
- **.mobi:** This is proposed for use in the mobile phone industry.
- **.asia:** This is for the use of organisations in the Asian region.

- **.mail:** This is proposed for the creation of a spam free email zone.
- **.tel:** This is proposed to allow telecommunications companies to register telephone numbers as domain names.
- **.ie** and other country level domains

Website Publicity

Congratulations!

Your website is now live and is hopefully on its way to fulfilling its goals.

However, your website is just one of several million vying for the attention of a selective and impatient audience. Standing out from the crowd needs more than just beautiful design—it requires the support of some serious publicity.

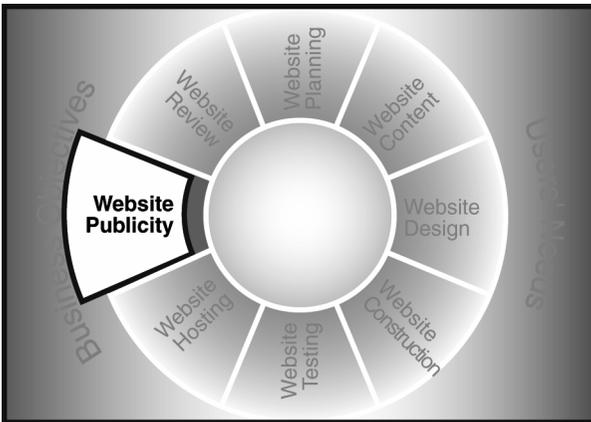


Figure 13. Website Publicity as a phase of the Website Development Cycle.

Below are listed a number of promotional techniques—both online and offline—that can be used to promote your website. Many of these are free of charge, though they can demand a significant investment of time. Others require a monetary investment.

Online Publicity

Online Publicity encompasses promotional activity that occurs over the internet.

#1: Choose a short, easy to remember domain name.

#2: Use email to inform customers about a website launch (however, avoid spamming).

#3: Create reciprocal linking agreements with other websites.

#4: Create a subscription based email newsletter

#5: Write clear and concise content

The production of clear and concise content helps Search Engines to identify the subject matter of a website. This makes them much more likely to direct traffic to it.

#6: Write metadata and keep it up to date

Good metadata increases the confidence of a Search Engine that a site is well managed and is therefore a good bet for traffic.

#7: Submit the website address to an internet directory

An internet directory is an edited list of websites that is sorted by category. The two most popular examples of this type are the Open Directory Project (www.dmoz.org) and Yahoo!.

#8: Use Search Engine Optimisation (SEO) services

SEO refers to techniques that can move your website up in Google rankings. There are 2 types of SEO: blackhat and whitehat.

- **Blackhat** uses techniques that Google has banned. If your website uses blackhat techniques you could be barred from Google. You must never use such techniques.
- **Whitehat** uses techniques that Google has not yet banned. Such techniques should be used with caution.

You should note that a well written website with good metadata and an enthusiastic audience should have little need of professional SEO services.

#9: Pay for online advertising

This can easily be done on Google AdWords or Facebook Advertising.

#10: Set up a Facebook and Twitter account and link back to your website

Offline Publicity

Offline publicity encompasses promotional activity that does not occur primarily over the internet.

#1: Include your web address on all company stationery and literature.

#2: Invite the printed media to review a website.

#3: Engage a public relations company for standard advertising, e.g. in a printed journal.

Publicising an Intranet

It is frequently the case that the scope or utility of intranets are not well understood by staff, simply because they are not aware of the extent of services available.

A program of publicity can counteract this. Such a campaign could be justified on the basis that it enhances Return-on-Investment in web technology.

Some ideas include:

- **Posters:** Colourful communications can be placed on staff noticeboards to highlight aspects of functionality.
- **Staff newspaper:** Regular articles in a staff newsletter can be useful for promoting new applications.
- **Attended kiosks:** The intranet Maintenance Team Leader can perform informal training for staff by attending a kiosk in a staff area, e.g. a canteen..
- **Daily email:** If permitted, a daily email could alert staff to content that has been added or changed on the site.

Website Review

The purpose of a review is to establish if Website Goals are being achieved and, if not, what corrective action is needed.

In the first phase of the Development Cycle (Website Planning) we learned about SMART goals: Specific, Measurable, Achievable, Realistic and Timely.

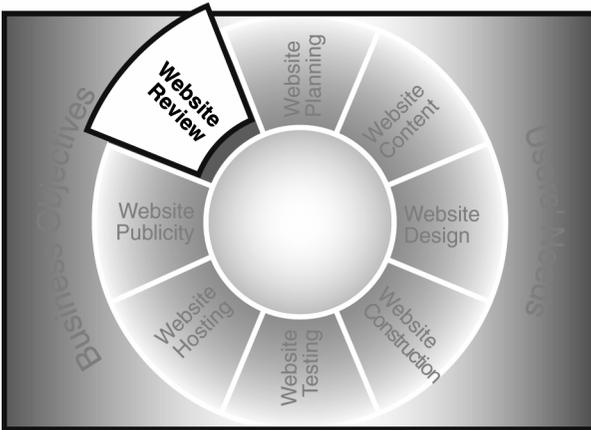


Figure 14. Website Review as a phase of the Website Development Cycle.

For example, you might have set goals to:

- Attract 15% more donations by 2010.
- Improve brand recognition among 18-30 year olds by 30% by 2010.

You must now assess if these goals have been achieved and – most importantly - how the website contributed to them, e.g. how many funders used the website as an element in their decision process. To do so, you will need to examine several data sources to reach a firm conclusion. These could include financial numbers, a survey of funders and website traffic.

By triangulating all these sources, you can establish how the site has performed.

You must then ask the question – was the investment worth it?

If so, great!

If not, what went wrong? If the goals were realistic and achievable, then why did you fail?

One way to find out is to conduct a SWOT analysis.

SWOT Analysis

A SWOT analysis is an appraisal technique that relies on four categories to evaluate an online venture. These are:

- **Strengths:** What are we good at, e.g. navigation, content, maintenance?
- **Weaknesses:** What should it be good at, but are not, e.g. maintenance, responding to feedback, writing good content?

- **Opportunities:** What is happening outside the business that could prove beneficial to the website, e.g. growing broadband penetration?
- **Threats:** What is happening outside the business that could undermine us, e.g. new security threats.

A SWOT analysis evaluates the design, content, code and governance of a site against a series of industry standards. If the results of this audit are negative, it suggests some rework is needed.

Among the aspects that could be included in such an audit are:

Design

- **Architecture:** Does the site structure reflect the visitors expectations?
- **Design:** How well does the basic page layout reflect good design practice?

Content

- **Appropriateness of Content:** Does content match expectations for subject matter?
- **Quality of Content:** Is the content authoritative, comprehensive and accurate? Has it been written according to web writing guidelines? Has it been edited?

Construction

- **Accessibility:** Does the site adhere to WAI Standards?
- **Code:** Is code well written and structured?

Governance

- **Resource:** Did you invest enough in the website in terms of the people & time needed to manage it?
- **People:** Are there enough people with the right skills to look after the site?
- **Processes:** Are there documented processes that say how the site is to be managed and maintained?
- **Tools:** Do staff have adequate tools to complete their work in an efficient manner.

Based on the results of such a review, you can identify where extra work is needed.

Similarly, you might decide that the original goals are no longer relevant. For example, as a result of organisation change (a merger or takeover), new goals have emerged.

If so, you need to return to the first step of the Development Process and start a new round of planning.

About the Author

Shane Diffily has many years experience in website management. He is currently employed as a Senior Analyst with iQ Content—one of Europe’s leading web consultancies (www.iqcontent.com).



As an experienced writer, Shane has published several articles for the respected design journal Alistpart.com. He has also written numerous case studies on technology and business for The Irish Times ‘Business2000’ (Ireland's leading broadsheet newspaper).

Shane lives in Dublin, Ireland.

Visit www.diffily.com for more articles and advice about website management and maintenance.