# Typical Website Design & Development process

**Author:** The Ethical Agency

Designing and building bespoke digital solutions can be as complicated as building a house or motor vehicle with architectural and engineering practices playing vital roles in the production process. There are often tens of thousands of lines of code specifically written to control the look and functionality of websites articulated through beautifully designed frontend pages that facilitate the end-user experience with your brand...

This document is designed to illustrate the process involved in website development and to show how planning effectively will help produce well managed, considered and world-class projects.

As much as the web development company can make the process as easy as possible, clients do need to be actively involved in key processes (brief, reviews and content supply) which can sometimes be more time and work than expected – a friendly warning;)

#### 2. BALLPARK ESTIMATE

A ball-park cost-estimate can be produced from a client's brief. It is however impossible to estimate with accuracy until every aspect of the client's requirements are explored fully which can only take place after in-depth consulting with the client. See Requirements gathering & brief development

#### 1. MANAGING EXPECTATIONS

While it is possible to create off-the-shelf websites cheaply these days, at the end of the day, you do get what you pay for.

We specialise in bespoke, full-service solutions for clients that are carefully considered and planned to deliver world-class experiences for client and end user. Collectively the people we work with have decades of experience in design and web development. There is usually more involved in web projects than clients anticipate and they can often take longer than clients would assume, therefore it is important to manage expectations at the start.

### 3. REQUIREMENTS GATHERING AND BRIEF DEVELOPMENT

The estimate and end result of the project can only be as good as the brief. Creating a good development brief is as much a technical exercise as it is a statement of functional requirements.

This phase helps not only the web development company understand exactly what is required by the client but also helps the client to better understand the facilities provided by web technology and thus better understanding what's possible. This process includes consulting

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between the client and development company, gathering one example of each type of content for the website, as well as understanding scope and user-roles, and together producing a comprehensive development brief. Once the brief and scope is understood, the development company can produce a more accurate cost estimate.

#### 4. COST ESTIMATE

There are dozens of programming languages, frameworks and solutions for a website project. Once your requirements are completely understood the web development company can make a recommendation for you. Once the brief has been signed-off, the ballpark estimate can be re-worked into a more accurate estimate. For larger projects, this may need to be reviewed periodically and the client should also take note of the review & changes process outlined later in this document. Once the cost estimate is agreed, the development company will suggest the best framework solution for the project, followed by wireframing.

#### 5. WIREFRAMING

Wireframes are rudimentary line diagrams which help both client and developer understand how the site will work. These illustrate the important elements of website pages, making it easier to plan both the front-end

layout and the back-end information architecture. I.e. distinguishing what the most important functions of the website are and how they relate to each other. During this phase it is important to consider the target market and the types of users that may use the site and how their experiences should differ. This is an essential process that lays the groundwork for both the design and development phases. Wireframes need to be signed- off before front-end design can start.

#### 6. FRONT-END DESIGN

Stage 1 – site template: Typically two or three design variations will be produced for the overall site template. These will be based on two or three of the most important pages of the website (E.g. Home and Products). This is followed by client reviews, changes to the design and sign-off.

Stage 2 – page templates: Most pages of the website (E.g. Home, Contact, News, Testimonials etc.) will have a slightly different design and layout and may therefore require a unique page template to be designed. Each page design will need to be reviewed, changed and signed-off by the client.

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#### 7. HTML, CSS, JQUERY & JAVASCRIPT

Each individual page design is then converted into HTML (the language used by web browsers) and CSS (style sheets). This forms the front-end code that binds the interface, images and layout together. HTML conversion is a delicate process to ensure the website looks good on all computers and all web browsers (Explorer, Firerfox, Chrome, etc.) and can include additional design templates so that the website can work on mobile devices (phones and tablets).

As part of this process, the web development company will make your website as modern and interactive as possible with things like; sliders, animating dropdown menus, and expandable concertina menus – these are built using JQuery and JavaScript

### 8. MOBILE DEVICE DESIGN & DEVELOPMENT

It is easy to see how a website designed to work on an average computer screen (15 inches width) will not look or work the same on an average smart phone (2.5 inches width). It is possible to ensure that the same website can work effectively on mobile devices by designing *responsive* theme templates whereby the website knows it is being viewed on a smaller screen and therefore displays the content accordingly. This is again a delicate

process and involves design, HTML & CSS as well as development in order to ensure effective results. This is usually itemised as a separate chunk of work in the cost estimate.

#### 9. CLIENT CONTENT

Whilst the design is being converted to HTML the client can start to gather all the required content for the site (text and images). Text will need to be written for various pages and the web development company will edit, format, and optimise all text and images for the website.

Use of a professional copy-writer can be invaluable at this stage. Similarly, the use of professional photography is also recommended as ultimately the quality of the look and feel of the site can only be as good as the quality of its content.

#### **10. DEVELOPMENT & CONTENT**

Development (programming) is required to precisely control all of the content, and each page of the website will require some form of development to incorporate the content.

In addition, all functional elements of the site (E.g. a contact form, purchasing of a product, registering on the website) need to be programmed and linked to the content. The more complicated the functionality the more development

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required. During the development phase, content will be added to each page – individually adding and formatting each image, video and text element for each page/product etc.

#### 11. CONTENT MANAGEMENT SYSTEM

A content management system (CMS) provides non-technical clients with the ability to *create*, *edit* and *publish* content instantly on their website. A CMS will help to reduce future maintenance costs. From a development perspective, this requires considerable programming of each instance where content can be created and edited by the client.

The CMS is a secure administrative version of the website ("back-end") and provides the client with the ability to change existing and add new content.

While most content can be edited using the CMS, there may be some parts that cannot be edited in this way and may require additional work by the development company.

#### 12. TESTING - REVIEWS & CHANGES

The website will usually be built on a staging server which allows the client to review the site before it is published as a live website for the world to see. We use an approach known as Agile

methodology whereby the client can review sections of the site before the full site is complete. Often requirements will emerge during the project as the client has a chance to experience what is being built – this is helpful as important decisions and changes can be made early on in the process rather than only at the end, which can save time and money and ensure the best possible product is developed.

Seeing the site gradually come alive is a rewarding experience and during this stage fine-tuning of design, content and functionality takes place as well as fixing any bugs in the code. The client might decide at this point to undertake some user-testing with stake-holders or user-groups. *Change requests* at any stage of the project after the cost estimate can result in additional costs.

It is important to note that the website will not look the same on all computers. An Apple Mac will display content differently to a PC, larger computers screens will display content differently to smaller screens (+ computers versus mobile devices), and there are a number of widely used web browsers (Chrome, Internet Explorer, Firefox, Safari, Opera, etc..) which also display content slightly differently. It is therefore not always possible to make every aspect of your website look the same in every

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environment but the web development company will use industry standard techniques to ensure the best possible (and reasonable) outcome in most environments.

### 13. SIGN-OFF & PUBLISHING THE WEBSITE

The complete website will need to be signed-off by the client before "going live". The publishing process will usually take place within a 24 hour period, assuming the live hosting environment and domain have been provisioned. An additional testing and review process should take place to ensure the live environment is up to date, correct and working properly.

It is usually a good idea to use and test the live site for a few days or weeks before any major public launch or PR campaign.

#### **14. BUG FIXES & MAINTENANCE**

The web development company will usually fix any bugs in the code or issues with the website for a set period (usually a month) after the site goes live without additional charges. It is therefore important for the client to set aside adequate time for user-acceptance-testing during this time.

After that all future work to the site would fall under a maintenance contract or

new cost estimate. It is normal that after a few months of use by the client and customers that some additional work may be required. (E.g. Adding a new section or feature to the website (such as testimonials or reporting) that was possibly not relevant before.

#### 15. FUNCTIONALITY

The following is a list of functionality that is common practice in modern website builds. Each element below has a development impact and cost that will be included in the cost estimate:

- Registration, user profiles and other secure interactions
- · Multi-layer navigation systems
- Contact form and other interactive forms and features
- · Searching the website
- E-commerce shop (online purchasing)
- · Content management system
- · Photo & video galleries
- Social media integration
- Integration with 3rd party apps/ websites/tools
- Google analytics (free reporting of statistics for clients but minor development work is required to set it up)

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#### **16. ADDITIONAL REQUIREMENTS**

The following are usually not considered part of a website build and are billed as extras:

- · Hosting & domain name registration
- Font licenses (web versions of fonts are required)
- Security certificates (required for secure sites – online purchasing)
- · Search engine optimisation
- Digital/E-newsletter creation and integration
- Photography and videography Copywriting
- Ongoing maintenance after the site is complete
- Training (E.g. CMS usage)
- · User testing and market research