

What is a CMS?

Modern websites should be built using a Content Management System (CMS)

CONTENT Management Systems

Lots are free

Hosted - Blogger platform, Wordpress.com vs .org

A CMS typically includes the following functionality

- Easy to use
- Ability to add, edit, delete, schedule content
- Upload media
- Allow users to be managed and securely log in
- Allow a user to manage content without impacting design/functionality

Some CMS systems also allow user to manage

- the design of the website (templates)
- Page creation and menu structure
- SEO
- Change history



WORDPRESS

Domains & Hosting

Domain name is an address on the internet

Think of your mobile phone number – unique

You rent a domain name from a Registrar or Reseller, managed by a governing body – NOMINET / ICAN

TLD - .ac.uk, .co.uk, .net, .com, .guru

<https://www.gcs.ac.uk/>

<https://gcs.ac.uk/>

<http://portal.gcs.ac.uk/>

<http://email.gcs.ac.uk/>

Always use https now

Hypertext Transfer Protocol Secure (HTTPS) is an extension of the Hypertext Transfer Protocol (HTTP). It is used for secure communication over a computer network, and is widely used on the Internet.[1][2] In HTTPS, the communication protocol is encrypted using Transport Layer Security (TLS) or, formerly, its predecessor, Secure Sockets Layer (SSL). The protocol is therefore also often referred to as HTTP over TLS,[3] or HTTP over SSL. <https://en.wikipedia.org/wiki/HTTPS>

Hosting is the server space on the internet

Think of your mobile provider, Vodafone, EE, you pay them rent for your number and the package

Shared – you pay less, share the resources of the server

Dedicated – you pay more, have all the resources of the server, advanced knowledge required

A plumber wouldn't need the same server resources as John Lewis!

Modern hosting is very flexible – AWS – you can host your website on the same infrastructure as Amazon and in a few seconds scale up, or down the resources.

Think Security & Control!

Hosting Providers

Heart Internet



GoDaddy



Planning

You need SMART objectives for your website so you know what success looks like

Amount of Traffic

Engagement of Users

Generate Enquiries

Generate Sales

Is your website to be the sales process or aid it?

Is it just informational?

What pages do you need?

User focused design

Market Message Media

What information to they want

How best can it be presented to them

For each page

What's the title

What text needs to be on the page

Do we need downloads, images, audio, video

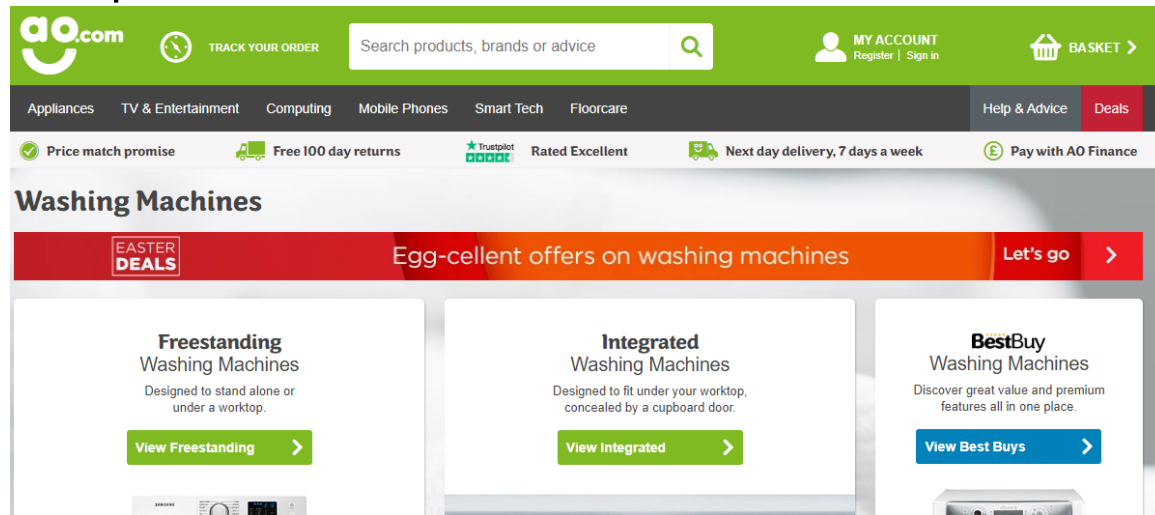
How can we add movement

What social networking do we need to include

Key Words & Phrases

The Words and Phrases that are important to your business and every page on your website.

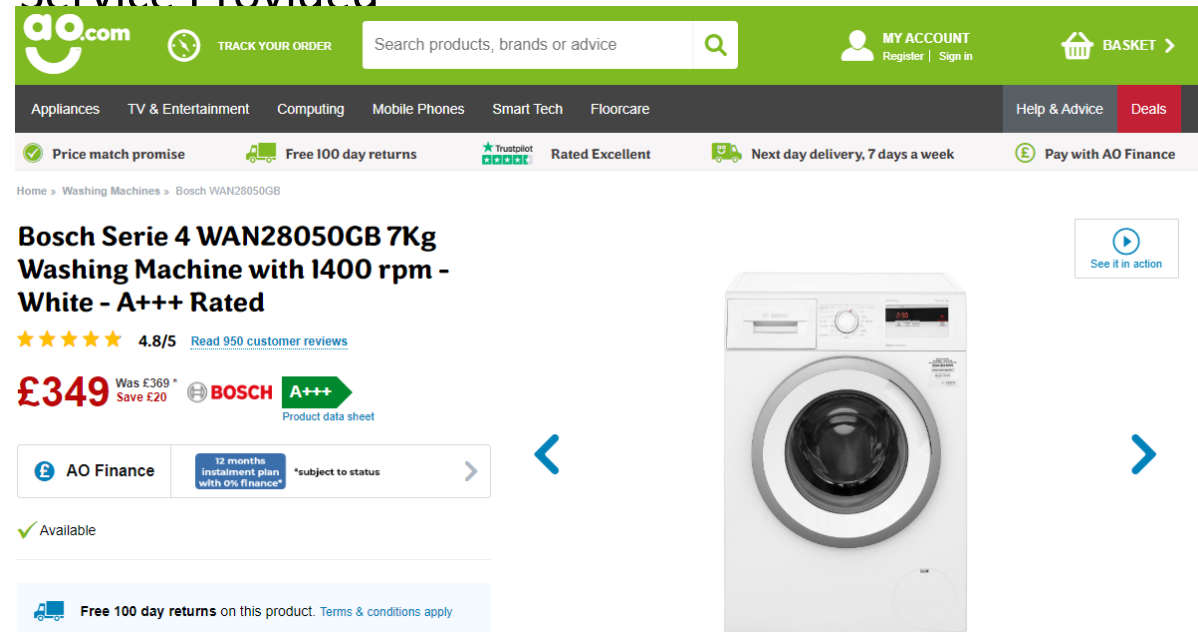
Make each page work hard for it's own key words and phrases.



Business Name

Product Name, Code

Service Provided



Template / Layout

Some CMSs allow you to change the template / layout.

WordPress calls them themes

Free “Off the Shelf”

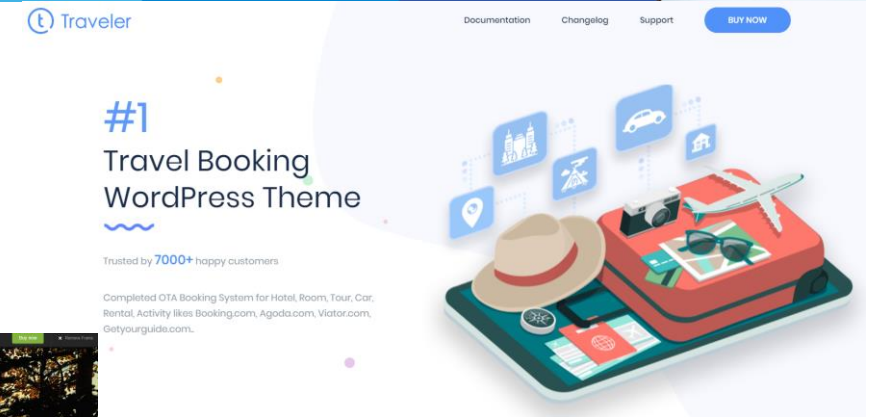
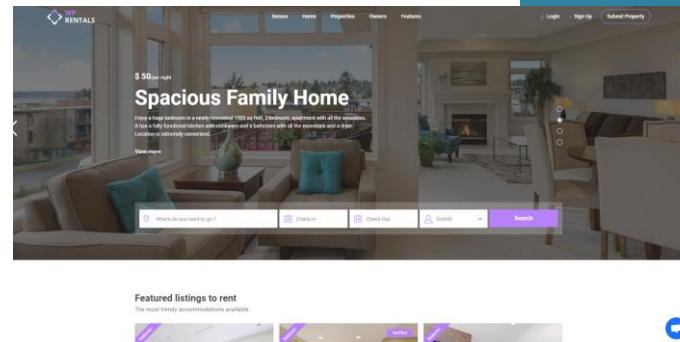
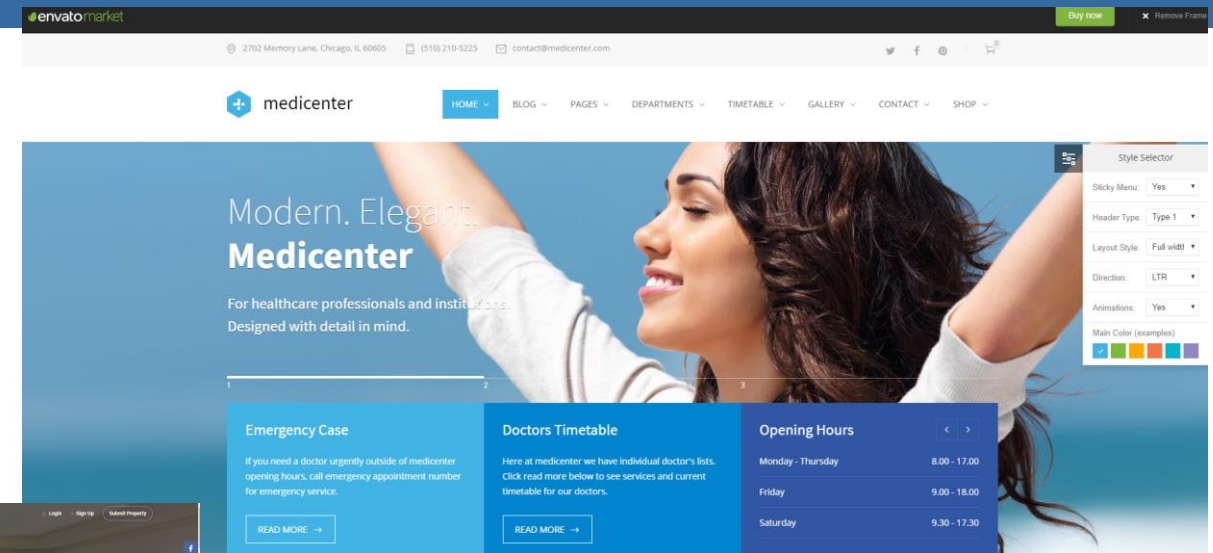
Paid “Off the Shelf”

Free/Paid Page Builders

Paid Bespoke

Once you know the content and functionality, you can decide on the template

<https://themeforest.net/category/wordpress>



File Types

Images

PNG – transparency

<http://webhub.com/dynhelp:viewTn:0:catalog=TnNote,id=whypng>

JPG – compressed photos

<https://www.konsyse.com/articles/advantages-and-disadvantages-of-jpeg-standard/>

GIF – transparency, animation

<https://www.lolgifs.net/gif-advantages-and-disadvantages/>

Audio

WAV or MP3

The difference between MP3 and WAV is a matter of “compressed” or “lossless” formats. MP3 is compressed, and WAV files are uncompressed.

<http://blog.zencastr.com/blog/20178/2013/wavvsm3>

Video

MOV or MP4

MP4 are typically more compressed and smaller in size, while MOV files are often higher in quality and larger in size. MOV files are better for video editing on a Mac, since they're specifically designed for QuickTime.

<https://www.cloudflare.com/learning/video/mov-vs-mp4/>

Documents

PDF – portable, editable

DOC/X – Microsoft, editable

Laws

Ownership

- Copyright Law

- Acknowledgement of sources

- Avoiding plagiarism

- IPR

Data

- Data Protection Act

- GDPR

- PECR

All content, words, images, videos, sound as subject to copyright law

Permission needs to be obtained or a licence purchased if they are not free

You may need to credit the source

Personal data must be in compliance with GDPR

Cookies may need to comply with GDPR

Email Marketing must comply with PECR

Register a domain name

Go to <https://www.20i.com/>

Click on Domain Names

Search for a domain with an appropriate TLD

Add it to the basket

Go to Checkout

Take a screenshot and keep this for your assignment

Windows as a built in tool called Snip & Sketch

The screenshot shows the 20i.com website interface. The top navigation bar includes the 20i logo and links for RESELLER HOSTING, WORDPRESS HOSTING, WEB HOSTING, VPS, and DOMAIN NAMES. A contact number (0333 344 2720) and a SIGN UP button are also visible. The main content area is divided into two sections: a sign-up form and a basket summary.

Sign up to 20i.com

CREATE ACCOUNT SIGN IN

Email Address

Password

Confirm Password

☐ I agree to 20i's Terms and Conditions

SIGN UP

[Already have an account? Sign in](#)

BASKET SUMMARY

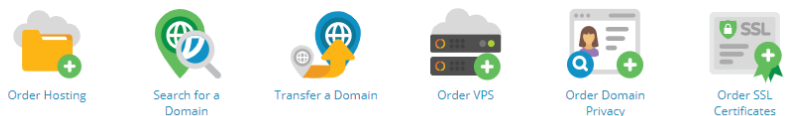
ben-wheeler-test.co.uk	£11.98 x
Yearly 2 Years	
VAT	£2.40
Discount	£0.00
Total	£14.38

Setup Hosting

2oi[®] [MANAGE SERVICES](#) [ORDER SERVICES](#)

Search Icons

Order Services



Manage Services

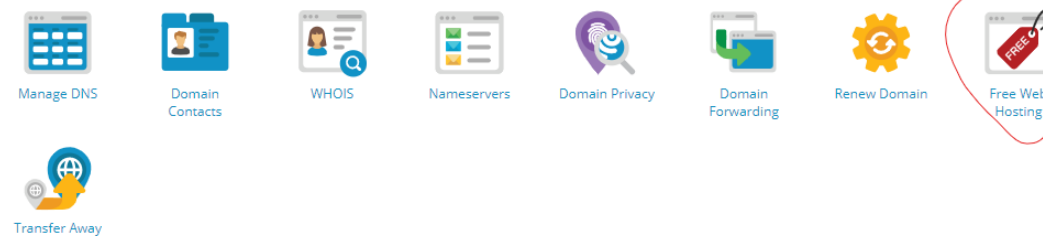


2oi[®] [MANAGE SERVICES](#) [ORDER SERVICES](#)

[Home](#) / [Manage Domains](#) / [gowerdental.co.uk](#)

Search Icons

Domain Management



Setup Hosting

Order Services

Order Hosting

Search for a Domain

Transfer a Domain

Order VPS

Order Domain Privacy

Order SSL Certificates

Manage Services

Manage Hosting

Manage Domains

Manage VPS

Bulk Domain Management

Transfer a Domain

Pending Domain Transfers

Domain Contact Validation

osCommerce Phoenix Edition

osTicket

phpBB

phpCOIN

phpFormGenerator

phpFreeChat

PHP-Fusion

phpList

PHPMailer

phpMyFAQ

phpNuke

Phproject

PHProjekt

Piwigo

PrestaShop

Prosper202

Revive Adserver

roundcube

Serendipity

SilverStripe

SilverStripeCMS

Simple Machines Forum

Slim

Snipe-IT

SquirrelMail

SugarCRM

SuiteCRM

Tcexam

Textpattern

Trouble Ticket Express

Typo3

vtiger

WebCalendar

WordPress

Zen Cart

Accessible websites

Making the website available to all irrespective of disability.

Visual

Auditory

Keyboard & Mouse

Screen Readers

Magnifiers

Equality Act 2010 puts responsibility on the website owner.

[Web Content Accessibility Guidelines \(WCAG\) 2.1](#)

<http://www.bbc.co.uk/accessibility/>

Images need Alternative Text

Tables need headers

Audio player must be accessible and provide transcripts

Video player must be accessible, include subtitles and transcripts

Easy to read – text size, contrast and colour

Not be colour dependant

Form tabbing and access keys

Navigation tabbing and access keys

CAPTCHA alternatives

Examples

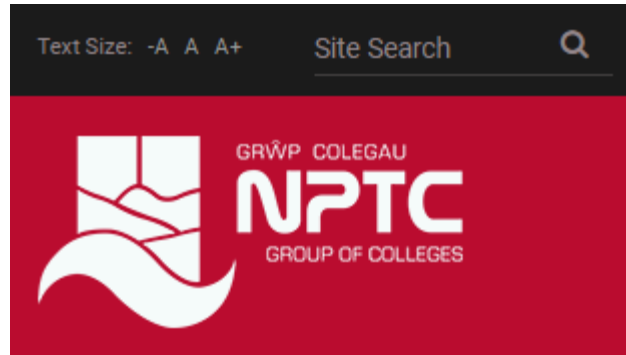


Comisiynydd
Plant Cymru
Children's
Commissioner
for Wales

[RETURN TO HOME](#)

Accessibility Options:
[View site as simple layout \(Disable CSS\)](#)

View text:
[Small](#) [Medium](#) [Large](#)



To help us make the Swansea Council website a positive place for everyone, we've been using the Web Content Accessibility Guidelines (WCAG) 2.1. These guidelines explain how to make web content more accessible for people with disabilities, and user friendly for everyone.

The guidelines have three levels of accessibility (A, AA and AAA). We've chosen Level AA as the target for the Swansea Council website.

Measuring

We need to measure so we can evaluate and review.

Google Analytics

Hits, Unique Visitors

Downloads

Shares

Bounce

Page Visits, Duration

Contact Forms Completed, Phone Calls, Emails

Sales

Source – Site or Keywords

Copy and paste this code as the first item into the <HEAD> of every web page that you want to track.

```
<!-- Global site tag (gtag.js) - Google Analytics -->
```

```
<script async src="https://www.googletagmanager.com/gtag/js?id= UA-11111111-1"></script>
```

```
<script>
```

```
  window.dataLayer = window.dataLayer || [];
```

```
  function gtag(){dataLayer.push(arguments);}
```

```
  gtag('js', new Date());
```

```
  gtag('config', 'UA-11111111-1');
```



Google Analytics

Audience Overview

All Users
100.00% Users

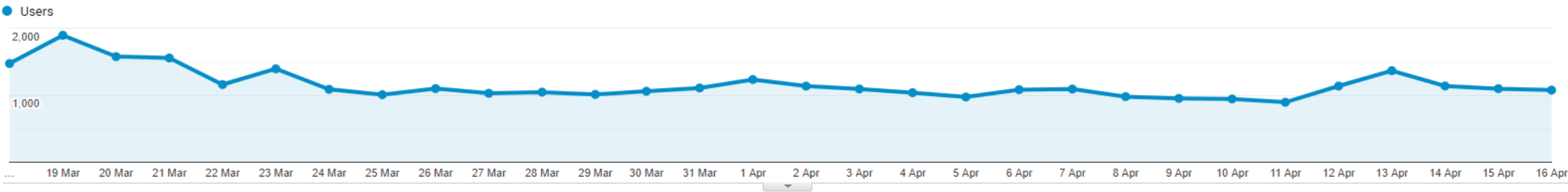
+ Add Segment

18 Mar 2020 - 16 Apr 2020

Overview

Users VS Select a metric

Hourly Day Week Month



Users
27,158

New Users
22,354

Sessions
39,586

Number of Sessions per User
1.46

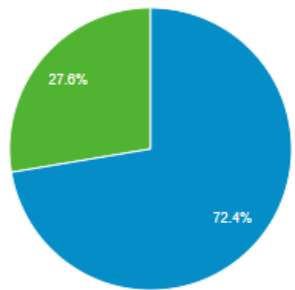
Page Views
142,497

Pages/Session
3.60

Avg. Session Duration
00:02:51

Bounce Rate
48.28%

New Visitor Returning Visitor



	Acquisition			Behaviour			Co
	Users ↓	New Users ↓	Sessions ↓	Bounce Rate ↓	Pages/Session ↓	Avg. Session Duration ↓	Goal Rate
	27,158	22,354	39,586	48.28%	3.60	00:02:51	
1  Organic Search	13,667			35.96%			
2  Direct	10,211			68.84%			
3  (Other)	2,811			30.81%			
4  Social	1,078			85.26%			
5  Referral	442			53.34%			
6  Email	128			70.93%			

To see all 6 Channels click [here](#).

Search Query [?]	Clicks [?] ↓	Impressions [?]	CTR [?]	Average Position [?]
	95 % of Total: 44.60% (213)	42,943 % of Total: 89.59% (47,932)	0.22% Avg for View: 0.44% (-50.22%)	59 Avg for View: 56 (5.62%)
1. copper bay digital	27 (28.42%)	44 (0.10%)	61.36%	1.0
2. copper bay creative	12 (12.63%)	24 (0.06%)	50.00%	1.8
3. copper bay	7 (7.37%)	40 (0.09%)	17.50%	12
4. web design swansea	7 (7.37%)	329 (0.77%)	2.13%	2.2
5. copperbay	6 (6.32%)	25 (0.06%)	24.00%	22
6. website design swansea	6 (6.32%)	165 (0.38%)	3.64%	1.6
7. copperbay creative	5 (5.26%)	14 (0.03%)	35.71%	2.1
8. copperbay digital	5 (5.26%)	11 (0.03%)	45.45%	2.1
9. website design south wales	5 (5.26%)	24 (0.06%)	20.83%	12
10. digital marketing swansea	4 (4.21%)	133 (0.31%)	3.01%	8.4

Page [?]	Page Views [?] ↓	Unique Page Views [?]	Avg. Time on Page [?]	Entrances [?]	Bounce Rate [?]	% Exit [?]
	2,133 % of Total: 100.00% (2,133)	1,693 % of Total: 100.00% (1,693)	00:01:14 Avg for View: 00:01:14 (0.00%)	1,198 % of Total: 100.00% (1,198)	72.20% Avg for View: 72.20% (0.00%)	56.17% Avg for View: 56.17% (0.00%)
1. / 	626 (29.35%)	468 (27.64%)	00:00:54	458 (38.23%)	56.99%	49.20%
2. /unsubscribe/ 	455 (21.33%)	385 (22.74%)	00:01:47	384 (32.05%)	84.11%	83.74%
3. /about/ 	152 (7.13%)	114 (6.73%)	00:01:21	18 (1.50%)	72.22%	48.68%
4. /our-work/ 	93 (4.36%)	65 (3.84%)	00:00:50	12 (1.00%)	75.00%	21.51%
5. /contact/ 	88 (4.13%)	72 (4.25%)	00:01:41	17 (1.42%)	70.59%	56.82%
6. /blog/ 	56 (2.63%)	47 (2.78%)	00:00:36	10 (0.83%)	70.00%	23.21%
7. /digital-transformation/ 	51 (2.39%)	33 (1.95%)	00:01:30	22 (1.84%)	59.09%	37.25%
8. /our-services/website-design-and-development/ 	35 (1.64%)	27 (1.59%)	00:02:16	7 (0.58%)	57.14%	34.29%

Understanding

Bounce Rate

Left without going elsewhere

Could be genuine

Issue for single page sites

Sends a signal to Google that it's a poor website

Measuring

Where is traffic coming from

Keyword analysis

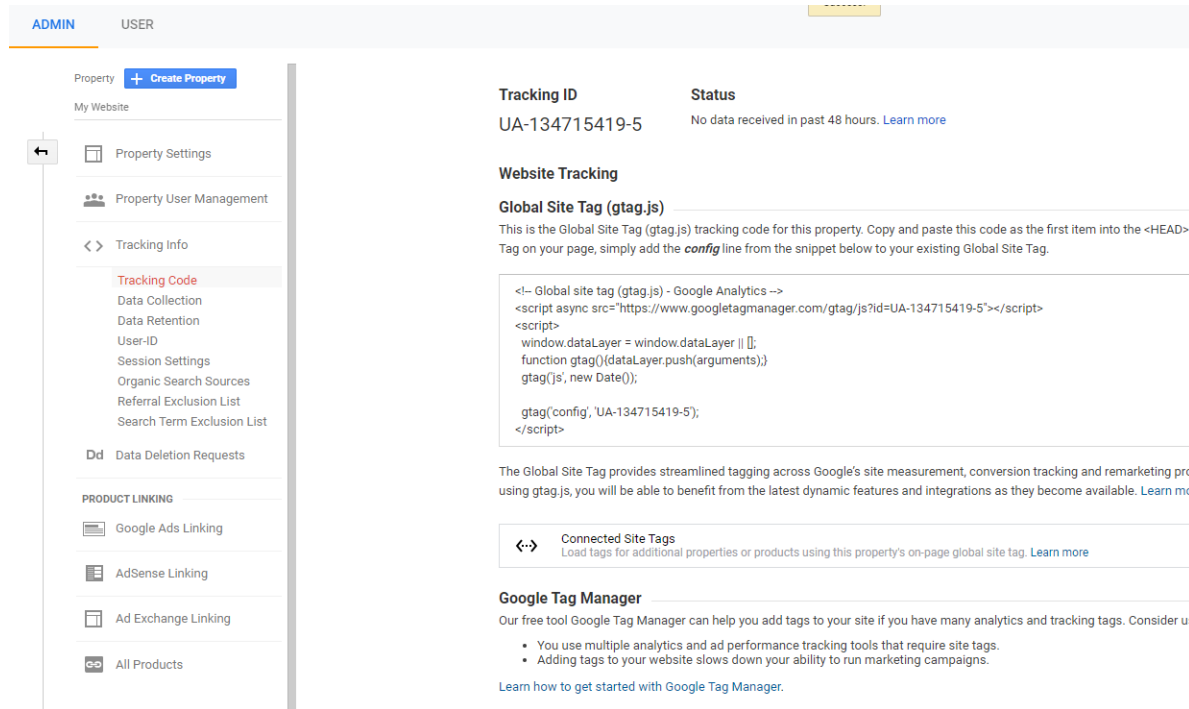
Success of marketing plan

What pages need work

Check functionality is working, e.g. Forms

Register with Google Analytics

Setup Google Analytics and take a screenshot



The screenshot shows the Google Analytics Admin interface. On the left, there's a sidebar with navigation options: ADMIN, USER, My Website, Property Settings, Property User Management, Tracking Info, Tracking Code, Data Collection, Data Retention, User-ID, Session Settings, Organic Search Sources, Referral Exclusion List, Search Term Exclusion List, Data Deletion Requests, PRODUCT LINKING, Google Ads Linking, AdSense Linking, Ad Exchange Linking, and All Products. The main content area displays the Tracking ID (UA-134715419-5) and Status (No data received in past 48 hours). Below this, the Website Tracking section shows the Global Site Tag (gtag.js) code snippet. The code is as follows:

```
<!-- Global site tag (gtag.js) - Google Analytics -->
<script async src="https://www.googletagmanager.com/gtag/js?id=UA-134715419-5"></script>
<script>
  window.dataLayer = window.dataLayer || [];
  function gtag(){dataLayer.push(arguments);}
  gtag('js', new Date());

  gtag('config', 'UA-134715419-5');
</script>
```

The Global Site Tag provides streamlined tagging across Google's site measurement, conversion tracking and remarketing products using gtag.js, you will be able to benefit from the latest dynamic features and integrations as they become available. Learn more

Below the code snippet, there's a section for Connected Site Tags, which allows you to load tags for additional properties or products using this property's on-page global site tag. Learn more

At the bottom, the Google Tag Manager section is visible, stating that it's a free tool that can help you add tags to your site if you have many analytics and tracking tags. Consider us

- You use multiple analytics and ad performance tracking tools that require site tags.
- Adding tags to your website slows down your ability to run marketing campaigns.

Learn how to get started with Google Tag Manager.

Website > View Source

```
64 <link rel='shortlink' href='https://www.copperbaydigital.co.uk/' />
65 <link rel="alternate" type="application/json+oembed" href="https://www.copperbaydigital.co.uk/wp-json/o
66 <link rel="alternate" type="text/xml+oembed" href="https://www.copperbaydigital.co.uk/wp-json/oembed/1.0
67 <!-- Global site tag (gtag.js) - Google Analytics -->
68 <script async src="https://www.googletagmanager.com/gtag/js?id=UA-36512218-5"></script>
69 <script>
70 window.dataLayer = window.dataLayer || [];
71 function gtag(){dataLayer.push(arguments);}
72 gtag('js', new Date());
73
74 gtag('config', 'UA-36512218-5', { 'anonymize_ip': true } );
75 </script>
76 <meta name="viewport" content="width=device-width, initial-scale=1" /><!--[if lt IE 9]><script src="h
[endif]><!-- There is no amphtml version available for this URL. --></head>
77 <body class="home page-template-default page-id-5">
78 <div id="fb-root"></div>
79
80 <nav class="mobile-menu-container">
81 <div class="mobile-menu-logo">
82 <a href="https://www.copperbaydigital.co.uk/" title="Copper Bay Digital" rel="home">
```