

Graphic & Web Design for Small Business

WEBSITE IMAGE OPTIMISATION



DIGITALALCHEMY101

They say a picture paints a thousand words. You put a lot of effort into selecting images for your website so they paint those words, yet, how much effort do you put into preparing the image so that it is technically optimised for your website.

You want a great experience for both your web visitor and for search engines, and the thing they both adore is a fast page load speed. One of the quickest way to kill this experience is by loading your site with bloated images.



WEBSITE IMAGE OPTIMISATION

Let's breakdown the image optimisation options into four areas ...



FILE TYPES

The two most popular image types for websites are JPG and PNG and knowing which one to use is your starting point along your image optimisation journey.



CURICIA S T

JPG, or JPEG, stands for Joint Photographic Experts Group. There's the clue, JPG files are ideal for PHOTOGRAPHS.

JPG files can be compressed while maintaining suitable quality for websites.

Their one downfall is there is no provision for transparencies so any cut-out backgrounds won't remain clear. PNG = Portable Network Graphic. The key word here being, GRAPHIC. PNG files are great for graphics; typically logos, charts, diagrams. They offer good levels of compression when used for anything with typography, lines, and geometric objects.

PNGs provide the option of transparency for those cut-out backgrounds.

While PNG files can work with photographs their file sizes are typically larger than JPG.

DOTS & PIXELS

Both JPG and PNG files are made up of rows and columns of pixels. Just like your TV screen is made up of lots of tiny dots. We need to understand how many dots are required to ensure image quality is maintained while reducing file size.



Photography was born out of the printed photo age. Photographers and printers needed to achieve high-resolution photos to make sure they work in books, magazines, etc. For this work, they work to 300dpi (dots per inch). Even in our metric digital world the print trade still works with DPI.

Our computer age now talks of pixels as opposed to dots although they are the same thing. Dots for printing and Pixels for computer screens.



Photos and images for websites work at 96dpi. That's the resolution that your computer screen displays an image.

Placing a 300dpi image on your website will still be seen on screen at 96dpi.

Many people think if they put a bigger, higher resolution image on their website the visual quality will be better. Simple fact - it won't. It is your screen that determines the resolution and not the image. Using 300dpi images will simply increase page load speed.

IMAGE SIZES

I get it, you've got the latest smart phone with an extra super-duper highresolution camera. The photos are amazing, but they are huge files!



My phone has a 16 mega pixel camera which results in an image size of 4608x3456px.

The maths 4608 x 3456 = 15.9 million pixels



My desktop computer screen has a resolution of 1920x1080px which is 2 mega pixels.

You can see that my camera captures photos that are far greater in size than can be displayed on my computer screen.

You may equally find that images from stock photo libraries are high-resolution are far too big for your website.

So what is the right size I hear you ask ...

WORKING OUT WEB IMAGE SIZES

Web sites should be primarily created for mobile use, although desktop view also needs to be taken into consideration.



Let's take this example of a web page with a full width banner image and 3 across feature images.

A Full HD desktop computer monitor displays at a maximum width of 1920px and thus a banner image that stretches full width needs to match this width.

The feature images appear 3 across on an HD screen: 1920/3=640px. When viewed on mobile they appear 1 across. A minimum width of 400px would be suitable for mobile viewing. Therefore using images at 640px will be fine for desktop and slightly larger than needed for mobile but not excessive.

WORKING OUT WEB IMAGE SIZES

Here is another web example, this time with a boxed model where the main content of the website has distinct margins on desktop view.



The banner image is stretched to fill the fullscreen width and remains ay 1920px wide.

The page margins are 390px taking the effective content width down to 1140px.

This provides a 3 column split at 380px wide.

In this example, the paragraph text is spanning 2 columns.

With the mobile view presenting the feature image at full width a width of 400px would be ideal for both views.

IMAGE COMPRESSION

Image compression is the magical art of reducing file sizes while maintaining adequate image quality. The choice of compression will depend on your choice of software for editing images and creating graphics. The resulting file size will then depend on the content of your image or graphic.

Image specification 1080x1080 96dpi	Image File sizes: kb App	JPG	PNG	
	Canva (free edition)	124	1287	
	Photoshop	78	1205 390	png-24 png-8
	TinyPNG	75	369	
	Affinity Designer	68	878 441	png-24 png-8

In this example, the image was created in all the variations to be visually acceptable for web site use. As expected, it's clear that this image needs to be a JPG file. When taking some time to explore different output settings the file size can be significantly reduced.

WHY IT MATTERS

Time

1.56 s

0.47 s

0.73 s

0.56 s

0.62 s

Smaller files result in faster web page loading speeds. Happy web site visitor and happy Google.

Here is a page load summary before and after optimisation. A 71% reduction in page load speed.





SUMMARY

The four stages to achieving optimum images for your website.



Bigger is not better.





linkedin.com/in/**trevor-lorkings**/



instagram.com/**digitalalchemistuk**



ಿ

00

facebook.com/**DigitalAlchemistUK**



DIGITAL

ALCHEMIST

twitter.com/**Bizzy_Fizzy**



trevor@digitalalchemist.live

TREVORLORKINGS

Rutland United Kingdom