Mastering
MANUAL MODE

Bonus Module 1
Optimize Images for Online Use

Optimize images for online use

In order to be able to set the resolution of an image correctly for online use, you first have to understand how resolution works for screen display.

There are two significant reasons why this is important to you as a photographer. First you want to make sure that you upload images of a high enough resolution that they don't because 'pixelated'. Pixelation occurs when then quantity of pixels in your image is so low that the page it is being displayed on has to 'force' it to a larger size. When the pixels become enlarged through this forced upscale, they become visible to the naked eye. As a result, the sharpness and overall quality of your image downgrades.

Secondly, you don't want to upload an image that is so large that it takes a long time to load into the page you are attempting to view it on. Images that are too large will negatively impact the web page that they are housed in and impatient viewers will leave early. They are also 'bloated' and are holding unnecessary information that your screen can't even display. So all the time to download them is actually a waste.

The measurement unit for online display is pixels. You can see pixels on older screens quite clearly as tiny square dots. On current displays the dots are at such a small size, and so tightly packed together, that it is much harder to see them with the naked eye, but you can see them with a magnifying glass.

There are two core considerations for screen display resolution of an image. The first is the width and height in pixels, of the screen that the image will be displayed upon. The second is the density that those pixels will be displayed at.

Screens are measured in units of pixels on an x and y-axis.

There are a broad variety of screen display pixel dimensions for computer screens, but some of the most common at the time of writing are:

1024 x 768

1280 x 720

1920 x 1080

With the first example (1024 x 768), this means that on the longer horizontal axis, the digital display is made up of 1024 pixels (or tiny dots) positioned tightly together, and on the vertical axis 768 pixels positioned tightly together.

Each device has their own measure of how many pixels per inch that it can display.

Typically screens display at either 72 or 96 PPI (pixels per inch).

Having said that, the physical size of the screen AND the pixel dimensions that the screen has will decide upon the resolution of your image.

For example, if you have a 19" screen set to 1024 x 768 and you have another screen beside it that is a 30" screen, also set to 1024 x 768 the number of dots displayed per inch on the larger screen will be much less than on the smaller screen.

As a result, whether you choose 72 or 96 PPI as your based PPI is largely negligible except in specific circumstances. Generally, I tend to work with 72PPI for online images unless an application specifically requires 96PPI.
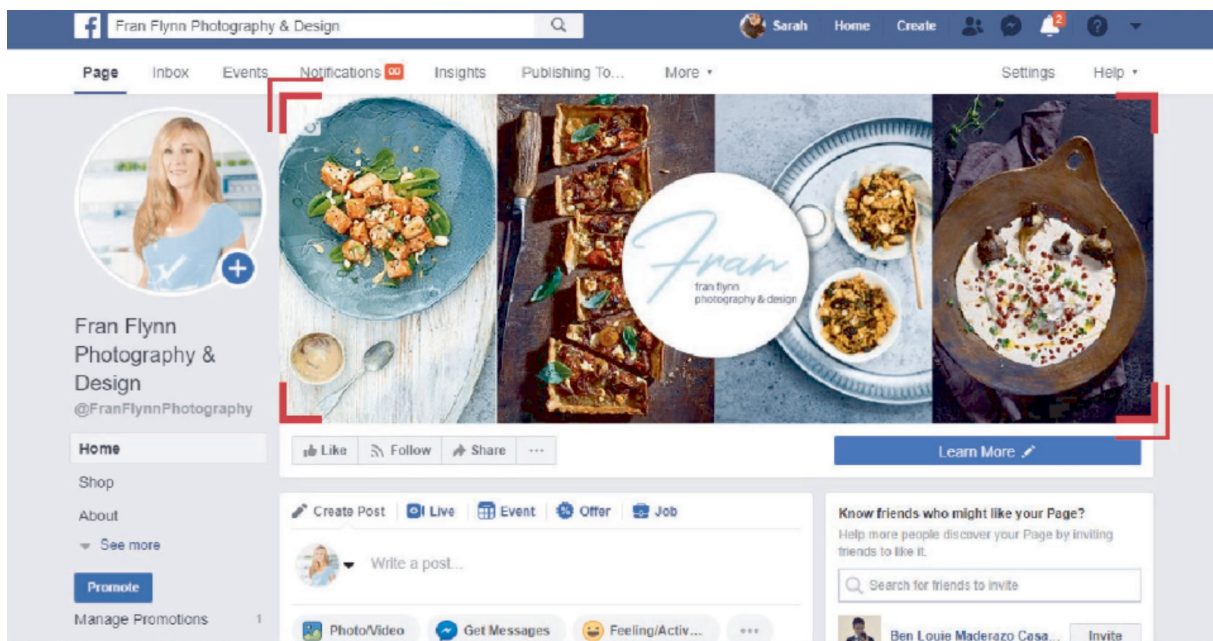
Now that you have a foundational comprehension of the way screen display, next we need to consider how web pages are measured within that display.

How resolution works

Again the unit of measurement is pixels. When a page is designed, image areas are defined based on pixel measurements.

Let's take sizing an image for a Facebook banner as an example. One important thing to consider with Facebook is that they will change the image areas for banners on a whim, without informing users. Every time you plan to create an image for a Facebook page, it's worthwhile to check what the current image area.

The other thing to consider is that Facebook auto-crops your image to suit different display formats, ie. widescreen computer screen versus standard screen, versus phone screen etc. In a situation like this, you need to make sure that the most important part of your image appears in the centre, so that it doesn't disappear in the crop on different screens.
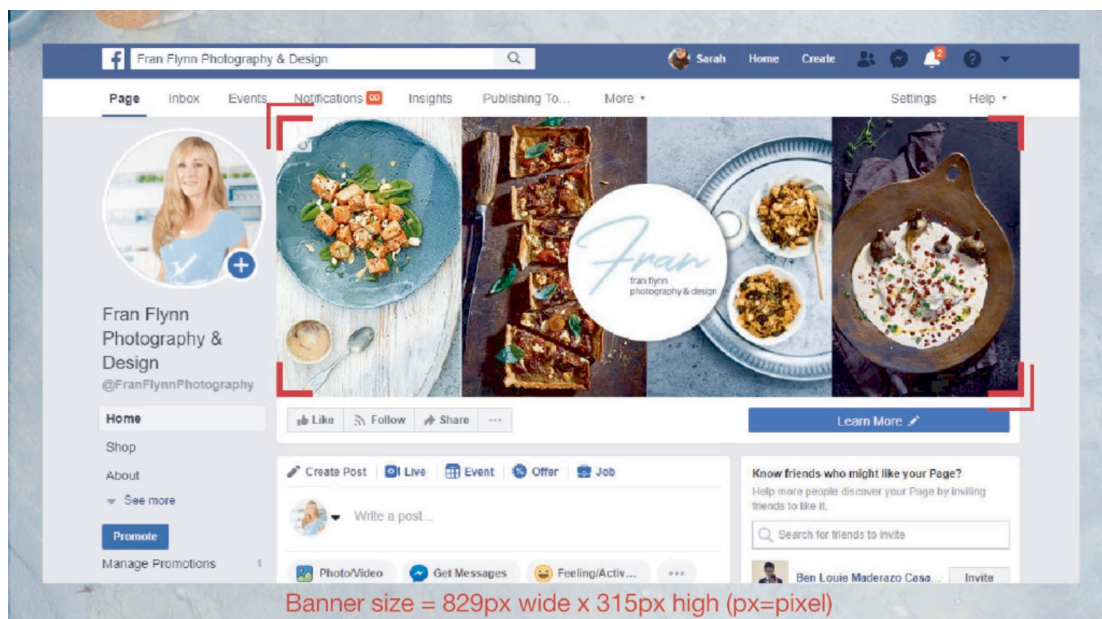
At the time of writing, a Facebook cover page image is 829px wide x 315px high. (px = pixel)

My favourite software for resizing images is photoshop.

There are lots of other options, both free and paid, that you can use for resizing images. Any quick Google search will come up with a multitude of suggestions. I recommend using a tool that gives you the option to type in the exact pixel dimensions that you want, not just an aspect ratio. You can resize images in Lightroom but it is more cumbersome because there isn't a direct crop tool to enter a pixel size. You can only do it when you are exporting your image, which makes it less exact.

Here I will describe the process for cropping and saving an image for web in Photoshop. Other tools will have their own process, but the core characteristics will be the same.

Banner size = 829px wide x 315px high (px=pixel)

1) Find out what size you need your image to be on the web page – in this example, we are aiming for 829px x 315px

2) Select the crop tool from the tool palette.

3) Enter the pixel size that you are aiming for

4) Drag the crop tool around the part of the image that you want to retain

5) Choose Save for Web

6) Save your image in the preferred format – jpg is most often used for images, unless you want part of the image background to be transparent, in which case you would use png.

7) Adjust the scale of the quality until you have achieved the optimal balance between file size and quality of an image. You will notice in the preview when you have reduced it too far, because the look of the image will become compromised.

8) Save your file

9) Upload it online!