## Does Size Matter? By Dennis Arculeo

Can we all agree that sizing your digital images properly is one of those subjects that it seems like NO ONE can agree on? There always seems to be conflicting information about what affects what. And what actually matters when digitally displaying images on a large screen and how to size your digital images in order to print them properly.

Personally, I got tired of reading post after post in which I saw very different and conflicting information about how I should be preparing my images to show them best on my website, on a blog, or for our competitions. My fingers got to work and I did the research. I didn't want to just do something because everyone else was doing it, I wanted to understand how all of it worked together!

After digging deep into the ins and outs of digital images, I have a much better understanding now about how to properly size images. I'm going to attempt to break it down for you in easy to understand language so that you can bypass all of that research and come away with a better understanding of how all of this REALLY works!

Does DPI/PPI matter when viewing images online? Answer is, It doesn't. If you take away anything from this article, is that Pixels per Inch (PPI) or Dots per Inch (DPI) has no (and I mean ZERO!!!) affect on how your image will display on the web.

## Let's talk about WHY it doesn't matter.

Dots per inch (DPI) is a term that refers to how many dots a printer can actually print in 1 inch of an image. It only makes sense when in reference to printing an image. Pixels per inch is a measure of pixel density, but means nothing without also knowing the dimensions of a digital image. Knowing your PPI and dimensions will help you determine how big you can PRINT an image without seeing any pixilation.

Example...Let's look at a digital image that is sized at $4000 \times 3000$. If you would like to retain 300 pixels in every inch of a printed photograph you could only print this image to a size of $13 \times 10$. ( $4000 / 300=13$ and 3000/300 $=10$.) If you wanted to print the image any larger than $13 \times 10$ you would simply reduce the number of pixels in every inch of the printed photograph and you could proceed to get a larger and larger printed photo.

Most printers/labs don't prefer to go below 100ppi. Therefore if you printed that same digital image at a 100ppi you could increase the print size to $40 \times 30$ (quite large) and you would retain 100 pixels in every inch of the image.

The bigger and bigger you print the less pixels you have available to put in every inch so the larger and larger you get the more "pixilated" the print will appear. This is why recommendations for printing always center around leaving the ppi at 300 . This way the printer or lab will have plenty of pixels to work with off the bat in order to print out your image.

However, standard screen resolution is $1366 \times 768$. When you think about digital images being viewed on a screen, images with dimensions larger than the screen resolution will simply open up to the full size of the screen. Computer screens are simply not large enough for PPI to matter. Unless you reduced the PPI of your image to a really low number (0-72 for example) you will not see any pixilation.

The main reason some might suggest to size any digital image to 72 ppi if you are putting it on the web is in case someone tries to download it. I agree this is good advice. If you are cautious of someone actually downloading your images from facebook or your website, putting a 72ppi image online is
a good idea because they will not be able to print that image very large. It has no affect however on what the image will actually look like online.

Another measure of how "big" a digital image is the file size of the image. This is essentially how much space the image file is taking up on your computer. You should be familiar with whether an image is 22 MB or 300 KB and how those differ.

The file size is a result of the initial dimensions of the digital image. For example, a Canon 5D Mark II camera produces RAW images that are 22.3 megapixels big which is a result of the dimensions being $5760 \times 3840$ which equals about 21MB on your hard drive (give or take). When you process an image in Lightroom or PS you can affect the file size in a few different ways.

Simply changing an image from RAW to JPG will affect the file size. As will reducing the "quality" of the image by adjusting the quality slider in LR or selecting the quality output in Photoshop. Changing the dimensions or Cropping the image by changes to the dimensions will automatically adjust the file size. So we need to understand that editing the image by cropping throws away available pixels, thus making the file size smaller.

None of these things will affect how an image is viewed on the web or your typical screen, unless you size it DOWN by reducing the dimensions to be smaller than average computer screen size of $1366 \times 768$ pixels.

Have you ever opened up an image online that opened up super small on your screen instead of getting larger to fill up the screen? That's because the dimensions of the image have been reduced.

The main thing to be understand about file size is that the lower the file size of your images online, the quicker they will upload and load on your website. If you have ever visited a website where the images take FOREVER to load that is likely because the photographer uploaded large file size images (over 1MB).

## Sizing to the long edge matters especially for us.

For our digital competitors sizing to the longest side does matter. It matters, specifically, if you decide to size your image down to smaller than standard screen size which is $1366 \times 768$ pixels. And yes that's the exact pixel count of the Club's computer. We often hear from members who tell us it looked better on the computer screen than on the display. It may well be the case, if you are under sizing your images.

If you size your image to 4000 pixels on the long edge or 1024 on the long edge, the images should typically look the same on most computer screens. If you are viewing it on a very large screen, (like our Plasma screen), the 4000 pixel image will show larger than the 1024 image simply because it will be bigger, due to the simple fact that the larger image has more pixels. Since it is showing on a screen that allows it to be shown at its full size, like our Plasma Screen.

If you size your image to $300 \times 600$ it would obviously show much smaller on the screen and not fill the entire screen because the dimensions are lower than the screen size. Something we have been witnessing for a while for a number of our members competition images.

Information taken from a "Click it up a Notch" on-line article written by COURTNEY SLAZINIK

