



IO7 – MOOC for Teachers

Self-directed Learning Resource 3

Topic:	Digital Content Creation
Title:	Most Popular Image File Types and Formats
Time:	It will take you about 15 minutes to read through the file
Type of Resource:	Additional Information
Content of the Resource	<p>Digital Images can be either the result of a digital picture taken through a digital camera or smartphone, or can be created through specific computer software.</p> <p>Digital images are subcategorised into raster images and vector images.</p> <p>Raster images, also known as bitmaps, are formed by pixels, the smallest individual element of the image that shows the brightness of a given colour at any specific point. Images thus contain a fixed number of rows and columns of pixels. Raster images can be created by a variety of input devices and techniques. The field of digital image processing is the study of algorithms for their transformation.</p> <p>Vector images result from mathematical geometry. Often, both raster and vector elements are combined in one image. The standard internet image formats are: GIF, JPEG and PNG.</p> <p>The <i>Graphic Interchange Format</i> (GIF) represents a bitmap type of image that supports up to 256 colours, and allows short animations. This format is suitable for simple images and logos, while it is not highly suitable for more complex coloured images with colour nuances.</p>

	<p>The <i>JPEG/JPG</i> format is the format most commonly used to compress digital images, meaning that it reduces the size of an image in order to facilitate its storage and upload in the internet. This format is used especially in digital photography. Even though it has the advantage of facilitating storage and sharing, the JPEG format causes a loss in the quality of the image, and is not suitable for high quality pictures.</p> <p>The <i>Portable Network Graphics</i> (PNG) format that allows lossless compression of raster images, meaning that it is possible to perfectly reconstruct the original image from the compressed one. Even though the PNG working group designed the format for transferring imagen on the internet, and not for professional quality graphics, the format is used in those cases where the original image and the decompressed one have to be identical.</p>
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