Understanding Digital Media Files

Digital Media

Digital media can be created, viewed, shared, modified and saved on digital electronic devices.

When you save a digital file, it is encoded so that computer programs or apps can read and work with it. But because there is no standardization, there is further variation in devices.

images, audio and video are large amounts of data and compression is a useful tool for reducing file sizes. When images, audio or video are compressed, data is removed to reduce the file size.

Image

Images are made of pixels and the more pixels, the higher the resolution. The higher the resolution, the more memory is needed to store the image.

- JPG – (Joint Photographic Experts Group) most common file type on the web
- PNG – (Portable Network Graphics) great for interactive documents such as web pages, but are not suitable for print.
- GIF – (Graphics Interchange Format) most common in their animated form, due to the limited number of colours, the file size is drastically reduced.
- Other image formats include TIF, PDF and RAW.

Audio

Digital audio files may be encoded in either low-res or hi-res formats, which will affect their play-ability via streaming or require downloading first, and if the playback device is compatible with them.

- Common audio files are saved as:
- WAV (Waveform Audio)
- MP3 (MPEG-1 Audio Layer 3)

Video

Video files may be encoded in standard or high-definition formats. Not only are they created in different formats, they may need to be converted in order to play on different devices, from TVs to smartphones.

Common video files include:

- MOV (Apple QuickTime Movie)
- MP4 (Moving Pictures Expert Group 4)
- AVCHD (Advanced Video Coding High Definition)