Technology Corner



Digital Photos Have Metadata Too

By Christopher Hopkins, Chair, Law Practice Technology Committee

Lawyers are increasingly protective of metadata in document files but, like the general public, are generally unaware that metadata also resides in digital photographs. Even the "Metadata Rule," announced in

Florida Bar Ethics Opinion 06-2, falls short of raising aware that metadata exists outside of word processor, PDF, and other text-driven files. Did you know that the photos you take on your smartphone likely reveal your GPS location? From casual iPhone photos to office scanners to forensic photographs, lawyers need to know what digital pictures reveal. Finally, there are easy steps to prevent, edit, scrub or reveal photo metadata.

Metadata has been weakly described as "information about information" but a better description is that metadata is "information describing the history, tracking or management of an electronic document." See Ethics Rule 06-2. In still image files, this often includes the time/date, technical camera information, copyright notice, and the GPS coordinates. This latter category (location) is important since most smartphones imbed that information ("geotagging") as a default. We discuss below how to turn that off.

Why do digital pictures record this information? Professional photographers want to preserve their copyright and they also use the technical information to dissect what went wrong in a given photo. News agencies and libraries need a reliable means to track, store, and retrieve images both locally and globally.

Lawyers, of course, are carnivores of information created by regulation, industry standards, and common practices. All of us hope to find that one piece of evidence which cracks the case. Time, date, location, camera specifics, and even indicators of editing/fraud are potentially significant.

Meanwhile, in our personal lives, we may not want random people knowing the location of our home based upon a poolside photo which was uploaded to the Internet. Along these lines, a creative programmer created a free program called Creepy which, as its name suggests, will scan a Twitter or Flick user's photos and provide you with the person's location from geotag data (he avers that Creepy was created for the benevolent reason of raising awareness of image metadata). For the moment, Facebook photos are safe since, during the upload process, Facebook apparently converts the image which strips metadata.

Technically speaking, we focus on JPEG and TIFF digital images which contain guide and descriptive metadata in four primary metadata container formats called EXIF, XMP, PSIR, and IPTX (for extensive technical data, read the industry-created Guidelines for Handling Image Metadata, http://bit.ly/eJTmcL). These containers are not visible to the naked eye or even microscopically — instead, this data is encoded into the digital file which can be viewed on a computer.

Even without specific software, you can view basic metadata by right-clicking the file and selecting Properties (on a Mac, select Get Info and look under More Info). Better still, download the free EXIF Pilot program to reveal a profound array of metadata. Other applications such as Photoshop, Irfanview, and Picasa reveal metadata (Mac users, try iPhoto or Small Image).

How do you scrub the metadata in image files? Again, most image viewing software (above) allows you to save a copy of the image without the metadata. In Windows, you can also right click the file, select Properties/Details/Remove Properties and Personal Information. Again, since metadata is located in four different "containers," further steps may be required to ensure a thorough scrubbing. For a low-tech solution, consider PDF'ing the photograph.

A few warnings: email scrubbers such as Metadata Assistant do not scrub image files. So any images which you email to someone or post to a social media service likely have all kinds of metadata. Some scanners create JPEG images which will have metadata. Keep that in mind when producing scanner-created files. Be aware that sometimes the metadata is wrong since (a) it can be edited, (b) time zones/day light savings may result in inaccuracies, and (c) geotag metadata is based on the location of the camera, not necessarily the subject.

Finally, some jurisdictions permit lawyers who wish to snoop metadata so be advised if your practice involves cases outside of Florida that your non-Florida opponent may be "mining" your data. The American Bar Association hosts a metadata chart providing a survey of metadata ethics opinions throughout the country at http://bit.ly/gASmzm. Even inside Florida, the Metadata Rule does not apply to discovery -- so you and your opponent may be free to inspect photo metadata as part of your investigation.

All three of the primary smartphone platforms allow you to turn off geotagging. On Android, the camera app menu has a "Store Location" setting. Blackberry users can disable location data under Menu/Options. Finally, for iPhone, go under Settings/General/Location Services and turn camera and other services which do not need GPS to "off."

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