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President's Corner

Why Can’t Standards be Standard?

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Part of what makes our technology work so well is that it follows standards. There are both rules established and items held up as an example in common use. All of our electronic means of communication are successful only because of standards. Without accepted rules for operation, cell phone calls wouldn’t connect, and text messaging wouldn’t work. Without established standards for interfaces like USB, Ethernet, Wi-Fi – even 120VAC power – we would not have the tech capabilities we enjoy today.

That does not mean that everything must be done in the same way. Innovation is often the result of new methods being introduced; if these prove beneficial and become popular, they can become the new “standard” for use. Sometimes multiple factions will solve the same problem or provide the same basic capability in different but incompatible ways. Remember the VHS vs. Betamax videotape war of the 1980s? Even though both followed standards, VHS eventually proved to be more popular and became the usage standard, forcing Sony to abandon the production of Betamax. These battles to become the popular standard can improve the technology available, but they also cause grief for the user that found their adopted version became the loser.

Unfortunately, while some tech changes have merit, others appear to be changed for the sake of change. Some changes to long-held ways of doing things seem to be for the benefit of tech companies (and their ability to market and sell new products), rather than tech users. User interfaces are especially susceptible to the change for marketing’s sake syndrome. I am so tired of Microsoft Office changing their user interfaces while providing little substantive or beneficial change.

Sometimes it is the competition that forces there to be differences. Manufacturers need differentiating factors and features to be able to gain market share over something other than price. Companies will often litigate with competitors that “copy” their key attributes. This usually forces multiple standards on the marketplace, as with Microsoft’s Windows and Apple’s MAC, or Apple’s iPhone and Android phones. This can also result in different interchange formats between competing device families. Fortunately, in most cases, the basic governing standards within product types are still followed by all competing vendors. You may not be able to use Facetime on an Android phone, but at least it can call and text with an iPhone. It is bad enough that few accessories are interchangeable between Apple and Windows computers; imagine if you couldn’t send an email between them?

The interchange of files between tech camps can be a tricky problem. Fortunately, there are some formats, like PDF (Portable Document Format) that are universally supported and recognized on all platforms, be they computers, tablets, or smartphones. Most Microsoft Office files are at least viewable on most platforms. Many image and video file formats are easily interchangeable, but unfortunately, there are quite a few that are not.



My wife and I recently went on a one-week driving vacation to a cabin in Idaho. Though we were kind of isolated from technology (off the power grid with solar/battery and no cell coverage), we brought along a lot of our tech devices. These included five image/video-capturing devices: a camera and smartphone each, plus my action cam. When we returned, I collected all the photo and video files on one USB Flash drive and sorted them chronologically. This was a bit of a task, as it amounted to 23GB of data in over 2000 files. The fact that there were different file formats and different hardware platforms involved didn’t help.

Being on vacation, my wife and I both took a lot of photos, but I took the majority – over 90% of them. She has fancier equipment but takes fewer shots, often looking mostly at artistry and composition. I have more modest equipment, and I’ve always taken lots of photos. I am concerned about good composition, but also tend to think of my photography as an augmentation of my memory. I take a lot of photos and videos of trips and family events simply to help me remember them.



My photos and videos were pretty easy to compile and view. I have Panasonic Lumix “bridge” camera; this type of camera has the large body and lens of a DSLR (Digital Single-Lens Reflex) but with the smaller sensor (and lower price) of a point and shoot camera (it is a bridge between the point and shoot and DSLR). It also has a fixed (non-removable) lens like a point and shoot camera. My camera takes JPEG (Joint Photographic Experts Group) photos (.JPG file extension), which is a lossy file compression format and is probably the most popular photo image format. It takes MPEG-4 (Moving Picture Expert Group-4) videos (.MP4 file extension), which is probably the most widely-used video compression format. My Samsung Android smartphone takes photos and videos in these same formats. My small off-brand action camera also takes MP4 videos. All in all, they are pretty standard and universally compatible.

My wife has the fancy (or at least more expensive) hardware – a Canon premium DSLR and an iPhone. She has the Canon set to save photos as both JPG and raw (.CR2 file extension). The raw file format consists of the unprocessed or minimally-processed camera sensor data (“raw” data) and is a much larger file. It is the highest quality format and is the best to use if photo editing will be done. I copied only her JPG files from our trip, as that’s all I wanted. Though I didn’t use them, I was impressed that the Windows 10 photo viewer (Microsoft Photos) could view them.CR2 files she had taken, as I’d never been able to see them on my Windows 7 laptop.

The iPhone proved to be the biggest challenge and the most incompatible with my computing infrastructure. My first difficulty was in getting the photo and video files off of the iPhone and onto my Win10 computer. You can’t just connect the two devices, and I would not know how to find the files I wanted on the iPhone if I could. Fortunately, I already had a solution to this problem. A few years ago I’d purchased a SanDisk iXpand 32GB Flash drive, which can act as an intermediary between the Apple and Windows worlds. This is a special Flash drive with both a USB type A connector and an Apple Lightning connector. It also contains an internal battery; this may be necessary because, unlike USB, Lightning peripheral devices can only provide power, and not receive it. Through the SanDisk app downloaded from the Apple Store, photo and video files can be located on the phone and then copied to the Flash drive from the iPhone, through the Lightning connector. The Flash drive can then be plugged into a Windows PC through the USB interface so that the files from the iPhone can be accessed and copied.

Even with the iPhone files on my Win10 computer, the compatibility battle was not over. The iPhone video files are .MOV (Apple QuickTime) compressed video files, which are compatible with Windows. The photo files, however, are.HEIC extensions, not immediately recognized by Windows. These are High-Efficiency Image Format files, a new MPEG format that Apple has adopted. Microsoft did provide an ac solution, however. Double-clicking on one of these files on my Win10 PC brought up a message to download an app from the Microsoft Store. Once I had downloaded and installed the HEVC Video Extensions app ($0.99), my computer could view these photos.

In addition to this new file format, new iPhones also take photos in a mode called “Live Photo”. In addition to the.HEIC image, the phone also captures a video running 1.5 seconds before and after the image, so each photo was taken results in two files. Since now I could see both, I decided to keep both.

After a bit of manipulation, I finally had all of the trip photos and videos I wanted in one place, all visible in Windows. Though Apple may keep changing up their file formats, it appears Microsoft is providing ways to keep up and view their files in Windows 10.

Now if only my Chromebook could open all these files. I’ve had poor luck with video files on my Samsung Chromebook, and none of the ones we took on the trip could be opened. It turned out the only thing it could see was the JPG files. It seems the Google Chrome OS needs to update its standards.



***The Most Photographed Spot*** – I’ve been ordering a lot from Amazon since the pandemic, and a lot of the time the email I get from Amazon asking how my package delivery was, includes a link to a photo of the delivered package sitting on my doorstep. Apparently, the delivery person now takes a “proof of delivery” photo. This may soon make my doorstep the most photographed location on my property.