This month’s Pro is Kate Hodgkinson, Video Developer at OnYourMark, LLC. Christian helps you select the right media for your archives.

A few weeks ago, my aunt asked me what she should do with her old floppy disks. She has many years of vacation photos scanned and archived on 3 1/2″ floppy disks and on zip disks, but her new computer doesn’t have a 3 1/2″ floppy disk drive or a zip disk drive. I had to explain to my aunt that her media was a great way to store photos at one time, but technology is quite a bit more advanced.

In the age since floppy disks, the variety of options for storing our media has multiplied; to name just a few... CD-R, CD-RW, DVD-R, DVDRW, and Flash Drives. Each type is different in its own way, so which one is best for storage? There are many different factors to consider when backing up or storing your personal files. Each type of disc available on the market today has different capacities of storage and different purposes. Here’s my Dictionary of Digital Devices:

**CD-R**, which stands for Compact Disc-Recordable is the most commonly used storage media for archiving your personal data files and for audio purposes. You can create your own music CDs (legally, of course) to give to your friends, or to listen in your car. CD-Rs currently have a capacity of 800MB, and can store 80 minutes of music – not for very large files.

**VCD**, which stands for Video Compact Disc, made on a CD-R; this is like a DVD, it plays in DVD players, but the video quality is very low, and doesn’t always play on every DVD player.

**CD-RW**, which stands for Compact Disc-Re-Writable, is an alternative to CD-Rs. Unlike the CD-R which can only be written to once, the CDRW has the functionality to be written and re-written numerous times.

**DVD-R**, which stands for Digital Versatile Disc-Recordable, is the upgraded media if you have more files, or bigger files that need to be stored. DVD-Rs have the same capabilities as CD-Rs, with the exception of music. Standard CD-Rom drives, or CD players, won’t play DVDs, therefore it is not possible to make a “Music-DVD.” I already mentioned that DVD-Rs store bigger and more files than a CD-R; the standard capacity of a DVD-R is 4.7 gigabytes, and we will soon see that capacity increasing. Another advantage is that you can write higher quality video files to your DVD-R, which is why video is one of the primary uses for DVD-Rs.

There are two main forms of writable DVDs on the market right now -**DVD-R** (pronounced...
DVD minus R) and **DVD+R** (pronounced DVD plus R). The reason for the two different formats is more or less a rivalry between the two main manufacturers of DVDs, very similar to the rivalry between VHS Tapes and Beta-Max Tapes, in the early 80s.

Unfortunately it isn’t as simple to just go to the store and pick up either brand. Modern DVD-ROM drives that write DVDs will write to either DVD-R or DVD+R. DVD-R has been around longer than DVD+Rs, so therefore, older DVD players will not play DVD+Rs. If you are going to use DVDs for video purposes, it is more acceptable to use the DVD-R format because it is more universal than the DVD+R. Both formats work well as storage media. If I need DVDs for data storage and backup, I will buy whatever brand is on sale or available. If it’s for video storage, I stick to the DVD-R.

**DVD-RW** is also a good alternative to DVD-R and DVD+R, they are similar to CD-RW in that they can be written to more than once.

**Dual-Layer** and **DVD-RAMs** are other forms of DVDs you may hear in conversation. Dual Layer DVDs are DVDs with higher capacity storage, but they require a specific DVD burner, which does not come standard on most Computers. DVD-RAM is a re-writeable form of DVD, which comes in a cartridge, and has a faster burn speed then standard DVD-Rs. They also have a longer life-span as well, on the other hand, they are less popular due to the fact that they are not compatible in all DVD Players, and they cost more money, upwards of $9 per disc. These reasons make DVD-RAM less popular.

**USB Flash Drives, Thumb Drives**, or **USB Key chains** come with various capacities, upwards of 2 gigs. These flash drives are perfect for moving files from one location to another, but they have a finite lifespan. I have gone through many flash drives in the last few years, as they seem to just stop working. Therefore, I would never recommend Flash Drives for long term storage; they are meant for temporary storage or moving of files. Portable Hard Drives, which is an external hard drive that transfers data using USB or Firewire cables, work for long term storage, but are not reliable for backup, as they can fail just like your internal hard drives can.

With today’s technology, the best form of long term storage would be the CD or DVD; any of the formats I mentioned above will work for storage, and if you keep your media in a specifically designed CD/DVD holder, free from scratches and dust, they will last a long time and keep your files safe.

The technology has not been around long enough to determine the lifespan of CD-Rs, they may be advertised to last hundreds of years, but the way that CD-Rs are made, it is likely
that they deteriorate much sooner. But with proper care and attention, a CD-R can last a long time, I still have the first music CD-R I ever burned, and it still works after 7 years or so.

To my aunt, I say “Ask the Pro to help you move the pictures today!” To everyone else who is still holding onto archives stored in 3 1/2” Floppy disks, or Zip Disks, it’s time to consider updating your files to a different format, before it’s too late. And if you have any questions, you too can Ask the Pro.

What would you like to ask the pro? Email your questions to askthepro@OnYourMark.com!