



*Midland Michigan*

# BITS AND BYTES

May 2014

<http://mcc.apcug.org/>

## GENERAL CLUB MEETING

**7:00 P.M.**

4th Wednesday of the month at the  
Midland Community Center  
2001 George St., Midland, MI

### **This month's date:**

**May 28, 2014**

### **This month's topic:**

How to fix it - Club Members come  
prepared to share your favorite  
websites for home, garden, etc.

### **What you missed!**

Budgeting with high tech

### **Program Coordinators**

Howard Lewis      lewis3ha@chartermi.net

Bill Tower      tower.w@gmail.com

Please let Howard or Bill know of topics you  
would like covered at future meetings.

**APCUG 2014 Spring Virtual  
Technology Conference  
videos are available at:**

[apcug2.org/content/vtc11](http://apcug2.org/content/vtc11)

Click on Session **Title** to view video.

## **President Piper's Ponderings**



May's General Meeting will be another of our group discussions of how you use technology to get things fixed. Actually the topic is wide open to include: home fix-ups, car repairs, gardening and finding people & companies to do these repairs. I think we should expand the How-To theme to include financial, medical, educational and even personal matters.

I forget who suggested this topic, but it was an instant hit for me. The Pipers have always been Do-It-Yourselfers.

Look over your Favorites/Bookmarks for some of your better sources; come to the May meeting prepared to tell us how you have used a couple websites to solve a fix-it problem. YouTube is a great source. Maybe we should have a contest for who can come up with a question for which there is NOT already a YouTube video!

I also may ask you why you shop at certain stores, with the idea of who gives you the best information and service

I have received both a Chromecast and Roku device which will be among the raffle items in the coming months. We also have two books plus two book certificates to give away (and some computer parts).

*(The above comments are the opinion of the author and do not necessarily reflect the views of the Midland Computer Club.)*

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**Board Meeting**

First Thursday of the month  
 7:00 PM  
 Chapel Lane Presbyterian Church,  
 5501 Jefferson Ave., Midland MI

**Useful, useless and strange (in no particular order) Web Sites:**

(submitted by Howard Lewis)

<http://tinyurl.com/mvgzckb>

Buffer overflows have been the major cause of security breaches at many sites and at home. This site explains what a buffer overflow is and how it affects you. It is somewhat on the technical side, but should get the idea across as to how these things happen

<http://tinyurl.com/c9kor7s>

DDoS (Distributed Denial of Service) attacks are another problem that we frequently hear about. These can be malicious or accidental, but they will manifest themselves through an exceedingly slow website or a rejection of your access attempt.

<http://tinyurl.com/n3aobj6>

Finding animals in the wild can be challenging. Finding some of the animals in these photos is downright difficult.

<http://tinyurl.com/l57cw87>

It is amazing what some of the things are that have been made using the new 3-d printing technology that is currently available.

<https://www.futurelearn.com/>

It is thought that the best way to either prevent or slow down the memory loss associated with aging (dementia and Alzheimer's) is to maintain an active brain. This site may help by introducing you to some world class lectures given by renown professors from around the world.

**Membership Enrollment Form**

NAME \_\_\_\_\_ PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZIP \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

Membership dues FAMILY (\$20) STUDENT (\$15) New Member \_\_\_\_\_ Renewal \_\_\_\_\_

Please fill out the above form and mail it along with payment of check or money order to :

**MIDLAND COMPUTER CLUB**  
 1816 Bauss Ct  
 Midland, MI 48642-4023

**Attn: Membership Chairman**

You may also pay for membership at a regular club meeting

**Tips, Tricks & Techniques** (submitted by Carol Picard)**Interested in learning about Linux?**

The Linux Foundation, in conjunction with edX is offering their Linux course for free - 40 to 60 hour self-paced course, starting August 1.

For more information and to enroll in the course:

<https://www.edx.org/course/linuxfoundationx/linuxfoundationx-lfs101x-introduction-1621#.U2ZStPIdV18>

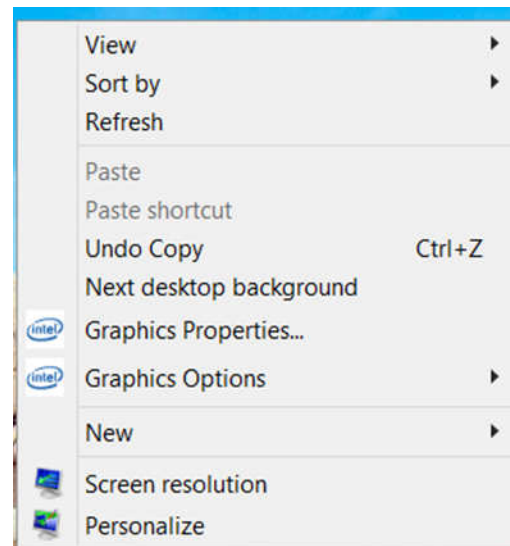
For information on using edX learning experience:

<https://www.edx.org/course/edx/edx-edxdemo101-edx-demo-1038#.U2ZUgPIdV18>

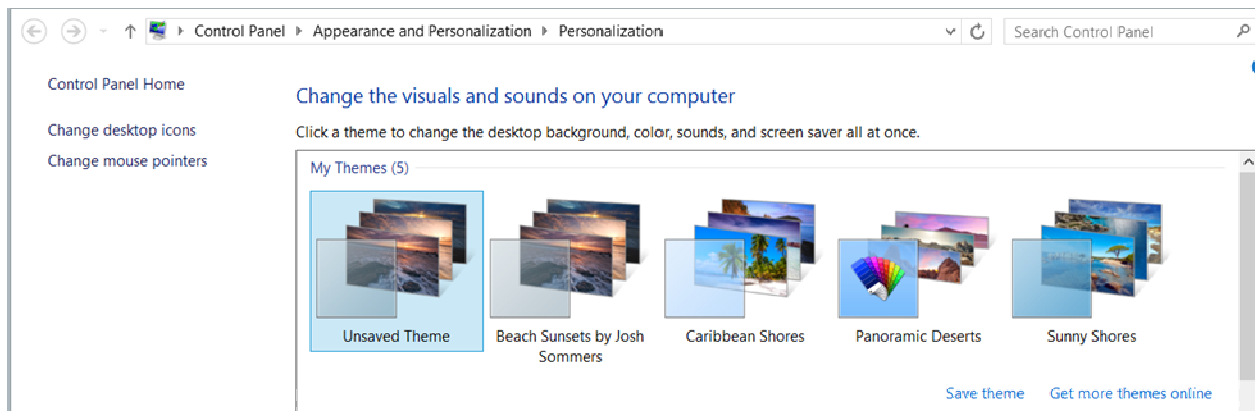
.....

**Windows 8.1 - Changing desktop themes**

To change Desktop theme, right click once on Desktop



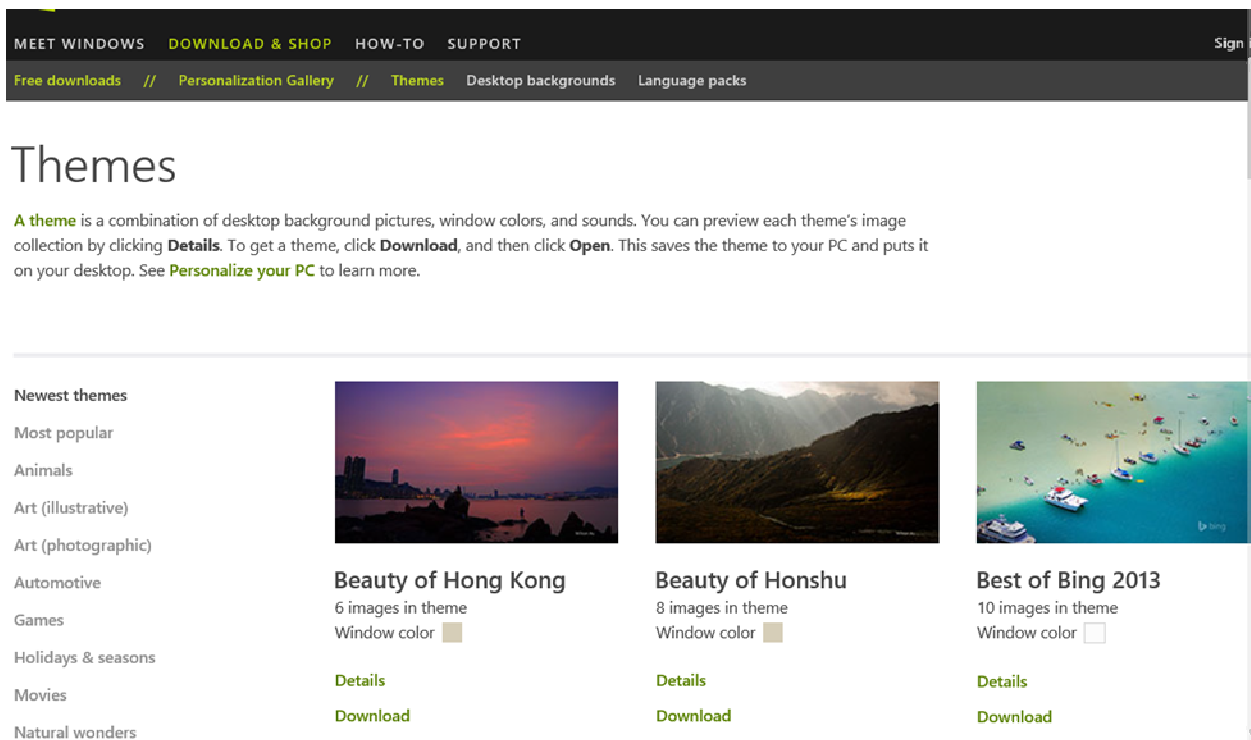
left click once on *Personalize*



To use a theme that is already installed, left click once on a theme to select it

To view additional themes, left click once on *Get more themes online*

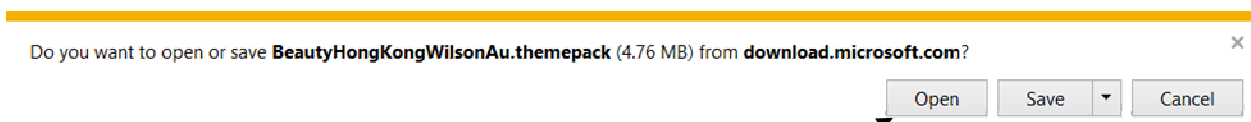
Browser will open to Microsoft web page.



Scroll to view displayed themes, or left click once on category in left column to view additional themes

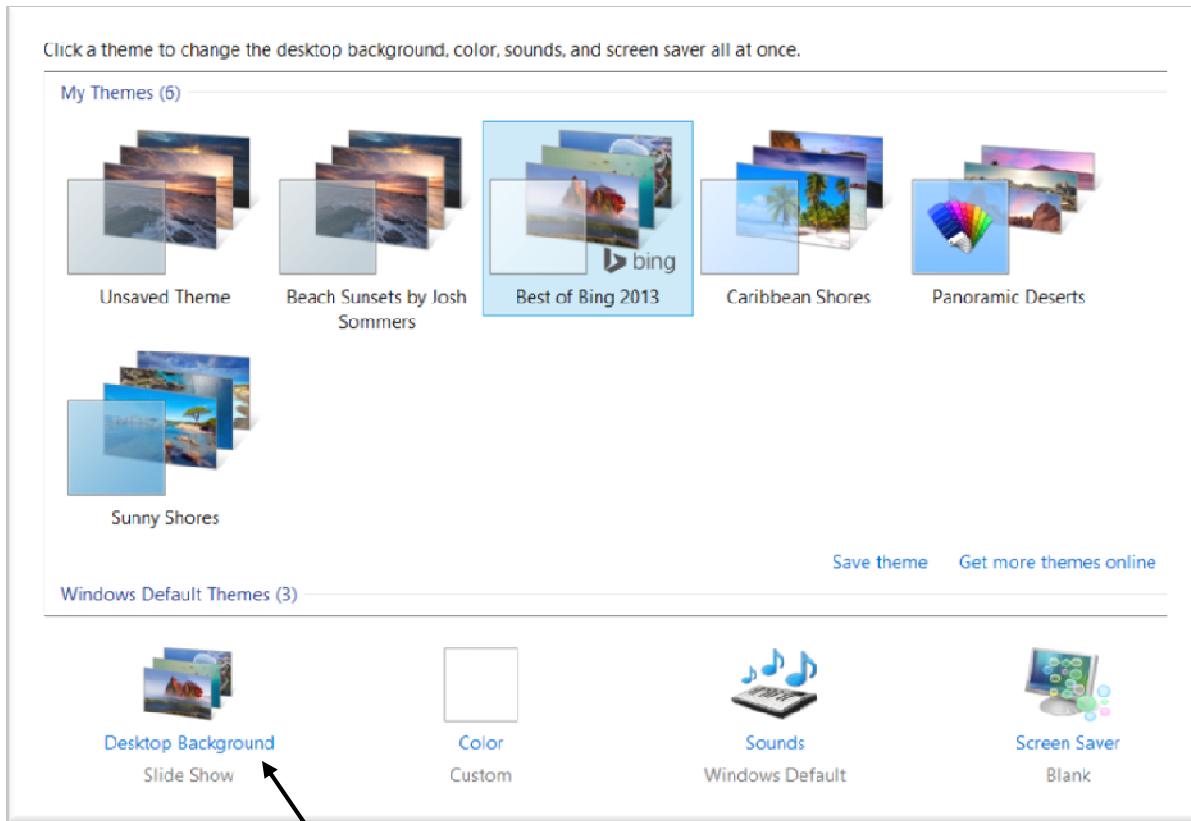
Click *Details* under a theme to view all pictures associated with that theme

When you find a theme you like, left click once on *Download* or *Download Theme*  
(can download multiple themes but have to do them individually)

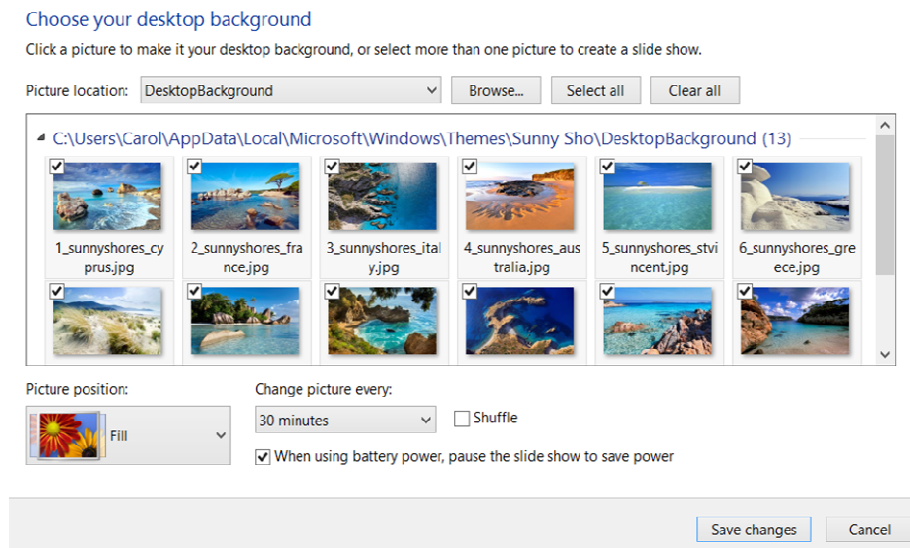


Download pop-up will display – left click once on *Open*

The selected theme will automatically download and appear under My Themes, will automatically become the new theme being used, and will display above Desktop Background.



To change settings for the selected theme, e.g., which pictures are displayed, how often the pictures change, etc., left click once on *Desktop Background*



Make changes, e.g., uncheck pictures you don't want to display, change amount of time each picture displays, etc.

When finished, left click once on *Save changes*

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**Clouded Judgment**

By Greg Skalka, President, Under the Computer Hood UG, California

December 2013 issue, DriveLight, [www.uchug.org](http://www.uchug.org), president (at) uchug.org

**Clouded Judgment**

The latest trend in computer operation and data storage is "in the cloud". This refers to storage of files not on your local computer hardware, but on remote servers which are accessed through the Internet. The cloud can be used to store your files so they can be accessed from anywhere, not just from your own computer. Applications can be stored and run through the cloud, requiring less sophisticated local hardware.

Almost all computer users today presently use the cloud, and many probably don't realize it. There are of course the online file storage sites which many use for storing and sharing photos. Any photos you view that are not in your computer, tablet or smartphone's local memory or hard drive are coming from the cloud. Videos you watch from YouTube, Netflix or other web sites originate in the cloud. All the information you posted to Facebook about your personal activities now resides in the cloud. Anytime you play one of the games associated with the Google Doodles, those changes made to the Google home page logo to celebrate or commemorate something, you are playing a game in the cloud. In reality, the cloud is the Internet.

**Silver Linings**

There are a lot of advantages to cloud storage and operation for the computer user. With your files stored on a hard drive in someone else's server, you don't need to have as much hard drive space of your own. Most online services, including Google, Yahoo and Amazon, provide some free cloud storage to their account holders. Having your files in the online storage provided by these companies allows access to your files from any computer connected to the Internet. If your computer is stolen or fails, your files are still safe in the cloud. This can be a great means of data back-up, and most software back-up programs now include a cloud option and online storage space for their customers.

Watching media content from the cloud has many advantages over local content. A vast array of movies and videos can be available to view over the Internet without the hassle of loading and storing on your local hard drive.

Many programs that you might otherwise have had to install and run from local storage space on your computer can now be run over the Internet, often through a web browser. Web mail is one example of a cloud application. With an email client like Outlook or Thunderbird installed on your computer, you can download and read your Gmail email and store it on your PC. Should something happen to your PC, however, your stored messages may be lost. By using the web mail online application for Gmail instead, you can always access your new and stored messages from any PC connected to the Internet.

More and more companies are providing cloud-based applications. Cloud software allows users to save local disk space, avoid installation issues, buy on a subscription basis and always have the most current version. For software makers, cloud subscription software lowers distribution costs and provides continuous revenue streams. In addition to the traditional versions installed on your PC, Intuit now provides a web version for all of its TurboTax programs. Office 365 is Microsoft's cloud version of its Office software suite. It allows users to buy a subscription to their productivity software and run it from the Internet, with access for up to five PCs and five mobile devices. This allows users to have access to the most current Office software on a yearly or even monthly basis, with 20 GB of online storage for documents.

Another advantage of cloud computing is that the hardware requirements are lower, allowing computing devices that are less expensive and more mobile to be used. Tablet computers and smartphones don't have internal hard drives and their internal Flash memory space is limited, so cloud file storage is almost a necessity. Google's low-cost Chromebook computers are specifically made for cloud computing. The latest version, built by HP, has 16 GB of Flash memory, no hard drive and is priced at \$279. It runs Google's Chrome OS and relies on applications that run online like Gmail and Google Docs, with most data files stored in the cloud. With lower hardware requirements, cloud devices like this can be cheaper, lighter and have greater battery life.

#### Dark Clouds

Unfortunately, there are a number of downsides to the cloud computing scenario. All those files you stored on someone else's server are now no longer fully under your control. Cloud services companies are occasionally acquired, sold and shut down, so you may not be able to depend on your data being there when you need it. Cloud providers can also have access problems outside of your control, causing you to lose access to your data, perhaps at critical times. If your web email provider is down, you lose all email access. If you instead use an installed email client, you at least have access to the email archived on your PC.

With your data in the cloud, not only can there be problems for you to access your data, there can also be unintended access to your data by others. Since the terms of service are often unintelligible, you may not have full certainty that your data won't wind up in places you didn't intend it through intentional actions by the cloud companies. And you really don't know what might happen to your data if the company's servers are hacked. It is therefore risky to put sensitive personal information in the cloud, even if it is encrypted, as it could be compromised through no fault of your own.

Another problem with cloud computing is that it requires an Internet connection (often through Wi-Fi only) to do anything useful. If you can't get online, all those files and photos of yours in the cloud might as well be on the moon. That Chromebook laptop may be small and light, but unless it can get a Wi-Fi signal (it has no wired Ethernet connector), it is pretty much useless dead weight, as most of its apps run over the Internet. Other Wi-Fi devices like most tablet computers have the same issue. Even with a cellular-connected tablet or smartphone, a good connection is never guaranteed. I recently found this to be the case in the lower decks of the U.S.S. Midway Aircraft Carrier Museum. If you want to be sure you can watch a movie on your tablet during your next plane flight, you'd better load it on the device.

The performance of web-based applications is often much worse than that of apps running on your local hardware. This is especially true if your Internet connection is poor. Even with good connections, some web sites always appear to be slow. I much prefer to use a local email client for my email as my email provider's web mail site is so slow to respond.

### Clearing the Air for Personal Clouds

In spite of the drawbacks, the trend towards computing devices that are more mobile yet storage-limited, like tablets and smartphones, is accelerating this push into the cloud. External USB hard drives and Flash drives may be popular storage accessories for laptops, but few tablets have USB connections. A new class of external storage devices promises to expand the local storage for Wi-Fi devices like tablets, smartphones, Chromebooks and even laptops. These devices combine the bulk storage of a hard drive or Flash memory with a Wi-Fi hot spot to create your own personal cloud.



The Gigastone Smartbox (<http://www.gigastone.com/>; \$45) combines an SD memory socket with an 802.11 b/g/n hot spot and a lithium ion battery. It allows up to six Wi-Fi devices to connect and share up to 32 GB of SDHC memory, providing handy file sharing and streaming. It can even provide a back-up power source for USB-powered devices.



The Sony WG-C10 Portable Wireless Server [http://www.sony.net/Products/ws/en\\_us/pwsintro](http://www.sony.net/Products/ws/en_us/pwsintro); \$80) does all the Smartbox does for eight simultaneous users, and adds a port to share a USB Flash drive.



SanDisk's SDWS2 Connect Wireless Flash Drive ([www.sandisk.com/products/wireless/flash-drive](http://www.sandisk.com/products/wireless/flash-drive), \$60) does the same as Sony but can't charge other devices. The Kingston Digital MobileLite Wireless Flash Reader ([www.kingston.com/us/usb/wireless](http://www.kingston.com/us/usb/wireless); \$60) and Wi-Drive (\$60 for 32 GB) are similar products.



Another class of mobile storage devices uses a hard drive instead of Flash memory, providing much more storage capacity. This includes the Patriot Aero Wireless Mobile Drive ([www.patriotmemory.com](http://www.patriotmemory.com);



\$150 for 500GB), a 500 GB or 1 TB USB3 external hard drive that serves to up to five wireless users. Other similar devices include the Corsair Voyager Air ([www.corsair.com/voyager-air](http://www.corsair.com/voyager-air)) and the Seagate Wireless Plus ([www.seagate.com](http://www.seagate.com)).

In spite of drawbacks, a greater use of portable devices means an increase in cloudiness in the computer world. To avoid operating in a dangerously obscuring fog, good judgment must be used in determining how and where to access the cloud and what data to store there. Personal clouds like the wireless mobile storage devices now available can be a safe and convenient storage alternative for use with mobile devices.

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## My Life with Devices

By Nancy DeMarte, 1<sup>st</sup> VP, Sarasota PCUG, Florida

December 2013 Issue, PC Monitor, [www.spcug.org](http://www.spcug.org), ndemarte (at) Verizon.net

It all started about six or seven years ago with my first device, an iPod Touch. This cell phone-sized device does not make phone calls, but does nearly everything else. It introduced me to the seemingly limitless iTunes store and helped me navigate through the maze of managing my music and “apps.” This little device made me realize that I could carry hundreds of photos and songs in my purse, as well as get access to the Internet and my email in any Wi-Fi hotspot. I walked the treadmill at the gym to the rhythm of my workout playlists and showed photos of my grandchildren to everyone who would look.



My second device was an original Kindle, an electronic book reader. As both a reader and a traveler, I was looking for a way of transporting the several books I'd need for one of our long cruises. Amazon's Kindle was nothing fancy, but was exactly what I wanted. It too was a Wi-Fi only device, although the Internet was only needed for downloading books. Even now before a trip, I search for and download a number of books from the Kindle Store at Amazon, most free or very low cost. Then I turn off the Wi-Fi to save battery power and read away. When I fall asleep at night while reading in bed, Kindle also goes to sleep in a few minutes, saving my place in the book.

When the iPad first appeared on the market in 2010, I bragged to friends that I didn't need anything that big when I could do it all on my iPod Touch. But being the techno fan that I am, I couldn't resist jumping in when iPad 3 came out in 2012. It's amazing how much easier it is to read email or play Words with Friends on that larger screen. Over time I got smarter about apps: fewer games and more utilities. When the Florida thunderclouds appear overhead, I check the time lapse radar with my RadarCast app. I keep in touch with my son and daughter with FaceTime or Skype. Although I still use my Kindle for reading books, I enjoy magazines on the iPad because they're in color and never get recycled. Email is easier on the iPad, too, both reading and writing. When my husband and I do the morning NYT crosswords each day, the iPad is our quickest cheating option. I have a portable stock of favorite recipes in the Recipe Book app and regularly download new ones from many of the best-known websites.





I was a late adopter of cell phones, and even then I chose a cheap, basic phone. My mother was in her 90's; I needed to be on call. About then, a friend gave me very good advice: "Have no more than one device that has a monthly fee." The cellphone became that device. It was only this year that I recycled the basic phone in favor of an iPhone 5. And it has turned out to be the right move. Last summer we rented a cottage on a lake where there was no Wi-Fi. I found that my iPad lost about 75% of its use to me because I had no Internet access. But my iPhone could do it all – read/send email, search the Net, play music, locate restaurants, talk to me, and take better pictures than my camera. You get the idea. A smartphone makes traveling a lot easier.

You may have noticed that I haven't mentioned computers among my devices. I have both a desktop and laptop and find them invaluable. When I need to write an article or set up a budget or make a greeting card or create a presentation -- in other words, when I need to produce something – nothing beats my computers. The iPad offers several word-processing apps, even a small version of Word, but I like the full power of Microsoft Office, Photoshop Elements, and other full-featured productivity applications which work best on a PC, say nothing of the large monitor and classic keyboard. I use my "little" devices, as my husband calls them, for enjoying media and gathering information.

Besides the cost, there are challenges to owning all these devices: three cords for recharging, three cases, syncing, updating, and carrying them through security at airports. But I have a feeling that we are right now in a short transitional period. I have no doubt that within the next decade or two we will be able to do it all on a device that's no bigger than a ball point pen that can project a keyboard on the table and a monitor on the wall, all in response to our verbal commands. It will let us produce, entertain us, and keep us in touch with friends and family. All our personal devices will be packed into one. For now, though, like many other people, I'm dealing with a device management challenge that I really don't mind at all.

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## The Tip Corner

Bill Sheff, Novice SIG Coordinator, Lehigh Valley Computer Group, PA  
December 2013 issue, The LVCG Journal, [www.lvcg.org](http://www.lvcg.org), [nsheff \(at\) aol.com](mailto:nsheff@aol.com)

### How Often Should I Shut Down My Computer?

This question comes up quite often. Unfortunately there's no easy answer. Are you concerned about your electric bill? How important is it to have immediate access to your computer? What about your own personal preference?

Electricity costs vary based upon how many watts of power your computer uses as well as what the local utility charges per kwh. Some say it costs roughly \$25 per month, however I do not think it actually runs that high. But if conservation and economics are important to you shut it down each night.

Wear and Tear does play a part, however today's hard drives usually stop spinning when idle and fans don't work as hard in sleep mode.

Many Processes continue to run which has the potential to cause memory losses.

The bottom line? When I researched this tip the suggestion was to shut your computer off when not in use. However, I very seldom shut my computer off. I put it into sleep mode before I go to sleep. So I guess this tip was not too helpful for most of you. But just be aware there are many different opinions out there, so no matter what you do, some will agree and others won't.

### Laptop Abilities

Here are a few items you might want to consider when searching out your next laptop. By this time we know that Windows 8 is here and alive and well. But if you still prefer the Windows 7 look Classic Shell and

Pokki are two apps that will give you that comfortable Win7 look. And speaking of apps you can get an app that turns your laptop camera into a surveillance system that will automatically start recording when someone enters the room, or even set it up so you can turn on your camera from a remote location and view a live feed.

You can also download a face recognition app, which uses the camera to scan your face during startup to ensure that it's really you who is logging on to your machine. But, while this is more fun than punching in a password, it's a little less secure. Holding a photograph of you in front of the computer would work. There are other apps that can turn your laptop into an easy-to-use photo booth. Look for one that lets you accessorize portraits with digital costumes, add thought-bubbles, and even alter the color to make the photos look old-fashioned. These apps and software are usually not pre-installed, so until you download them, your camera will be less functional.

Many of the laptops, and all the tablets, utilize a touch screen. There are finger and hand-swiping commands to be learned. Different brands can have different movements, so look them up to learn how to switch between programs and windows, shrink and zoom in, drag-and-drop, and more. Lenovo's 10-point multi-touch displays offer a wide-range of intuitive gestures that use up to all ten of your fingers. And, if you have Windows 8, you can use Customized Flicks to create your own touch screen commands.

Look for a laptop that has as a minimum an HDMI port, USB drives, headphone output, microphone input, and a DC-in. An SD card reader slot would be useful also, however USB connections could do.

If your plans also include an external USB3 device you want your new laptop to come with a USB 3.0 port. Data transfer is up to ten times faster with a USB3. And you may want to see if there is a firewire port so you can hook up digital cameras. But whatever they have, take a few minutes to familiarize yourself with all its capabilities.

You might have noticed I did not comment whether it should be a Mac or PC. Today both contain almost all the programs you need. The cost of a Mac and associated programs are usually more expensive than the PC. This is because there are a lot more PCs out there which make it cheaper per unit. Most young people prefer the Mac, but that is because of the great marketing job done by providing Macs in the schools. If your laptop is also going to be used in business, it should be compatible with the equipment at the office.

### **CTRL + ALT +DELETE**

Occasionally a program gets stuck. It stops working and will not close no matter what you do. The answer is CTRL + ALT +DELETE. This opens a window with a few options: Lock, Switch User, Log Off, Change Password and Start Task Manager. The Task Manager will show all programs that are in use. Sometimes you can see that a program is not functioning if it says 'not running', however it might show that the program you are having trouble with is still running. This can be true or not. It could be hung up in a memory loop, or really just taking a very long time to respond. In any event you can just highlight the program you are having trouble with and click on End Task, and the program will be shut down. Using the Task Manager means you do not have to shut down the computer in an incorrect manner.

### **CryptoPrevent (4.2.4)**

There is a bad program going around called Cryptolocker which locks up your files and you can only unlock them by paying money. CryptoPrevent is a tiny utility to lock down any Windows OS (XP, Vista, 7, 8, and 8.1) to prevent infection by the Cryptolocker malware or 'ransomware', which encrypts personal files and then offers decryption for a paid ransom.

Additionally, due to the way that CryptoPrevent works, it actually protects against a wide variety of malware, not just Cryptolocker!

You can get it here: <http://www.foolishit.com/vb6-projects/cryptoprevent/>

This tip was provided to me by one of my readers. Thanks.

### **Has Your Browser Been Hacked?**

Many of you have noticed that without warning a new toolbar appears in your browser. Or when you click on a site you get misdirected to another site touting some product. Since there is no such thing as a free lunch, and many legitimate companies are allowing this to happen what can we do to minimize this unwanted intrusion.

Some times this comes from a cookie or temp file that ended up on your computer due to a casual click in a site. More often than not it appears when you are installing an update from a legitimate program. In more simpler times when an update is downloaded all we had to do is install it normally. We never thought of clicking on the custom update button. But that is what we have to do. If we click on the normal update button, bundled with the update are all the Advertising, Loading toolbars, Redirection, and other marketing tools. Sometimes the boxes to add toolbars are shown in the opening screen, but more and more they appear within the custom install and there we are able to decline to add those pesky toolbars. So what you have to do is read everything you upload. The advertising media is big money and doesn't seem to be going away soon.

Fortunately, most of these marketing bullies can be uninstalled or deleted quite simply. So if you see some new icons show up in your browser, try to figure out what they are. Depending on your browser, there should be a section on "add-ons". Visit that and see if some strange toolbars are installed there. And go to the Programs and Features in the Control Panel to uninstall. Just remember: it is all about money.

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## **The Web of Unintended Consequences**

By Greg Skalka, President, Under the Computer Hood User Group, CA  
June 2013 issue, Drive Light, [www.uchug.org](http://www.uchug.org), president (at) uchug.org

For all those new high school graduates out there, the World Wide Web has been around all of their lives. Even most new college grads have never known a time without the web. Though the Internet, a global computer network, has existed since the 1960s, the World Wide Web has existed publicly for only 20 years. Tim Berners-Lee, then an employee of the European nuclear research organization CERN, created the framework for linked information in 1989; it went into the public domain on April 30, 1993. Berners-Lee hosted the first website on a NeXT computer with the intent to allow physicists around the world to share information. To commemorate the anniversary, CERN has resurrected that first web page, which explained the basics of the web and how to use it (see <http://info.cern.ch/hypertext/WWW/TheProject.html>).

I wonder if Tim Berners-Lee could have anticipated the impact the web has had on life today. While he no doubt intended it to be a space to exchange information, fostering creativity and collaboration, the fact that it has become so much more has me considering the unintended consequences of his creation. What do we now have, 20 years later, as a result of that first web page, and what price have we paid?

Whole industries have been created and fortunes made (and lost) in servicing the web. Our lives have been made easier, and the world has been made a smaller and more interconnected place by the resources available to anyone on the planet (and even on the International Space Station) from the World Wide Web. Though there are great global benefits in the free exchange of information it provides (at least in most countries), even helping to topple repressive governments, some would argue there are also detrimental consequences to its spread. The web has made good and useful information freely available to anyone with Internet access, but it has also allowed those with bad ideas, racist attitudes and radical goals to put their views and information before a worldwide audience. As with any new environment, it didn't take long for criminal activity to find it, and for governments to look at it as a new battlefield.

The World Wide Web could be thought of as an application running on the Internet, and while it is not the only Internet service typically in use today, it enables or enhances the use of most others. Although email and streaming media don't require the web, most people access them through it. It is hard to imagine social media and web commerce without the web.

A great deal of new wealth has come into the world as a result of the web, not even counting that from ecommerce. The web provided a primary reason for personal computer use and fueled the expansion of the fledgling personal computer industry.

Without the web, there would have been no "browser wars", and all those Netscape employees would have been without jobs. Today most computer users would cringe at having to use dial-up Internet access; the need for web connection has driven a worldwide broadband infrastructure expansion. New telecom technologies have been developed and the companies that promoted them have prospered as a result of this demand for web access, especially mobile access. Our own San Diego economy has benefited greatly from this infrastructure build-out driven by the need for improved web connections. Qualcomm pioneered new cell phone technologies that now carry more data than voice traffic, and have developed new processors that power smartphones. ViaSat in Carlsbad is planning to develop and launch their second satellite to help provide cheaper broadband satellite service to areas of North America not served by wired broadband. All that economic development and the related benefits (like jobs) that it provides are the result of Berners-Lee's development twenty years ago.

The popularity of mobile computing, using laptops, netbooks, smartphones and tablets, came out of the use of the web. What would be the point of having a tablet or smartphone, devices primarily oriented towards consumption of content, if the World Wide Web were not there to provide that content? Devices like the Chromebook, which are pretty much useless without web access, and concepts like cloud storage exist only because of the web. Big technology companies like Apple, Intel and Microsoft owe a lot of their success to the existence of the web.

Google, of course, is the best example of economic success driven by the web, as a search engine is unnecessary if there is no web to search. The concept of making money from web advertising was another unintended consequence of the web's development.

E-commerce was probably unanticipated by Berners-Lee, yet it has grown into a significant economic factor worldwide. The ability to easily comparison shop products from all over the globe is definitely a great benefit, one that has become so popular that it is sometimes blamed for the demise of traditional "brick and mortar" stores. Today's political battles over taxes on Internet sales would not be happening were it not for e-commerce on the web. So many personal and financial tasks can now be more easily performed on the web, including paying bills, registering to vote, booking travel and applying for college. Web banking has revolutionized personal finance and the banking industry, providing greater competition in the industry (including web-only banks), but no doubt costing jobs in local branches.

Without the web, there would be no YouTube, no Facebook, no Google Maps, no iTunes and no eBay. All these beneficial things owe their existence to the web, yet there are also unintended consequences, many of the quite detrimental, to all that information so easily accessible.

Could Berners-Lee have anticipated the growth in Internet porn facilitated by the World Wide Web? Or how much time people might waste on Facebook? Or how much deception might go on in online dating site profiles? Or how much productivity is lost by employers each year on Cyber Monday, the Monday after Thanksgiving, when employees are lured by marketers into shopping online from work? Cybercrime, cyber bullying, cyber-attacks; these are all unintended consequences of having the World Wide Web. Unfortunately, along with the benefit of web page links that take you to the information you want are corrupted links that hijack your browser and take you to undesirable sites, or facilitate the loading of malware on your computer. With useful web access also come denial of service attacks, where groups or individuals with malicious intent attempt to make web sites unavailable to intended users.

With more and more business and infrastructure information and systems connected to and accessible through the web, the threat of misuse of that information and access becomes greater. Cyber spying by criminals and governments unfriendly to our own is costly to businesses, individuals and our country's economic and military security. There are legitimate concerns about terrorist threats to our infrastructure through cyber attacks. Investigations into recent terrorist acts often lead to web sites where groups hostile to our country and our way of life promote their views, recruit members and provide how-to information on bomb making and other terrorist tactics.

The cyber threat is so significant that our own military has a specific branch devoted to cyber security and warfare, the U.S. Cyber Command. Our adversaries are increasing their hostile cyber activities, requiring us to fund a growing cyber capability for our defense in that arena.

On a personal front, the presence of the web has had unintended consequences for my finances. In addition to all the personal financial benefits I've received from the web, there are added costs as well. All that connectivity comes at a price. For me that cost is around \$100 a month, for cable Internet access at home and smartphone data plan expenses for family members. My own personal security costs add up as well. While viruses and malware can be spread through removable media and emails, a lot of the threat comes from the web. Would I need to have so many antivirus and anti-malware programs if the web didn't exist? Would I need to go to such great lengths to keep track of hundreds of unique and complex passwords to protect my financial and personal information in all my web-based accounts? Would I need to worry about doing everything right in terms of cyber security but still having my identity stolen by criminals that hacked the web site of a careless online merchant I purchased from?

With each anniversary of the World Wide Web, we should be grateful to Tim Berners-Lee for all the benefits the web has brought us. It has profoundly changed our lives and culture, mostly for the good. We must also be aware that almost everything that seems good comes with unintended consequences.

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## **Smart Device Users Beware: Fraud May Be Just a Click Away**

A Heads Up e-mail from the Southeastern Wisconsin Windows User Group

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[www.portebrown.com](http://www.portebrown.com) / [www.sewwug.org](http://www.sewwug.org) email (at) sewwug.org

This was forwarded from a CPA Member of SEWWUG. Even if you don't have a described "smart device," it explains a lot about the QR Codes we often see.

You've installed anti-virus software to protect your personal computer and business network. You know the signs of phishing scams (including unfamiliar senders, poor grammar and misspelled words). And like most people who use the Internet today, you never open a suspicious e-mail or download files from a questionable website.

But what have you done to protect your iPhone, Android or tablet from cyber theft?

Many smart devices currently operate without anti-virus and malware protection. Although there haven't been many high-profile fraud cases involving smart devices, opportunistic hackers are targeting these devices as the world of quick response (QR) codes grows.

[http://www.bizactions.com/img/Technology/lores\\_security\\_mobile\\_phone\\_code\\_safety\\_kk.jpg](http://www.bizactions.com/img/Technology/lores_security_mobile_phone_code_safety_kk.jpg)

### **Scammer's Delight**

QR codes appeal to fraudsters for several reasons:

They're easy and cheap to create. All you need to do to set up a QR code is go to an online service and enter a web address. The site generates a QR code in seconds for free.



Malicious codes can be printed on stickers and placed on top of legitimate QR codes. Or a fraudster might post the code on a subway station bulletin board or a tourist monument and wait for curious victims to click on the image.

The human eye can't decipher QR codes. People can't tell a legitimate QR code from a malicious one. So it's easier to hide a "click jacking" scam than a phishing scam or virus. Smart devices don't usually slow down or show any other signs of "infection" until the user's data has long-since been compromised.

QR codes are relatively new, but rapidly growing. Hackers will increasingly exploit QR codes as more people purchase smart devices and more businesses use them for marketing purposes.

Users new to the QR code world may be unfamiliar with the risks of clicking on malicious codes and may not be security-conscious enough when using their smart devices.

### **What are QR Codes?**

QR codes are square, two-dimensional barcodes that were originally used by auto manufacturers in the 1990s to track vehicle parts. Today, QR codes have become a popular marketing tool for businesses to connect with customers using smart devices.

You've probably seen QR codes in magazine ads, on business cards and product packaging -- even in taxis. Instead of remembering a web address and typing it into your browser, you can simply snap a photo of a QR code with your smart device.

Once clicked, QR codes perform all kinds of functions, quickly and easily. For example, a code might link to product specs on the company's website, enter the user into a prize contest, provide directions to an event, purchase a product using a PayPal account, "like" a company on Facebook or download coupons.

Unfortunately, QR codes can also be used to commit fraud.

### **Anatomy of a QR Code Scam**

Some QR codes are self-contained. That is, all the product information is coded into the image. If you have a QR reader on your smart device, it auto-converts the image and directs you to a website.

Other QR codes require you to download or purchase an application (app) to access an online server, which looks up the desired information or performs some other function. Both types of QR codes -- direct and indirect -- are susceptible to fraud.

Scammers can, for example, embed shortened URLs into QR codes to misdirect victims to cloned websites, where the fraudster sells product without ever fulfilling the contract or installs malware to gain control over the device. The next time the user accesses his or her mobile wallet or PayPal account, the malware captures that information and makes fraudulent charges.

Alternatively, proprietary apps pose a security risk by allowing the QR code author to install measurement and tracking systems onto the smart device. Most QR code apps require consent to a user's agreement -- which many people fail to read -- and these could authorize the QR code author to track your cell phone usage, access your contacts and other personal information, or ring up charges for premium texts on your cell phone bill, for example.

An even bigger threat occurs when the user connects the smart device to a computer to charge it or sync data. The malware can "leap" to the PC, infecting it and any networks to which the computer is linked. This security risk is one reason some companies are leery of implementing bring-your-own-mobile-device (BYOD) programs.

### Users Provide the First Line of Defense

Surprisingly few iPhone, Android or tablet users have taken steps to protect against fraud. Here are four simple things you can do to protect your smart device starting today:

Never click a QR code in a public place, such as a bus stop or mall. Only scan QR codes from trusted sources or vetted by third parties. Be especially careful when traveling overseas where QR code "click jacking" scams tend to be more common.

Always check a QR code for a sticker before scanning it. Use your fingernail. If it looks like a sticker, it could be a scam.

Never provide personal information or passwords if requested by a website linked to a QR code, even if the site appears to be legitimate.

Install a QR code scanner app that screens URLs before directing you to the site. These apps block unsafe sites and stop online threats before they're downloaded to your device. Search for "secure QR reader" on your smart device. Read the reviews and select one from an anti-virus software provider you know and trust.

The end result of all this is simple: Your smart devices are personal computers. Treat them that way. Don't wait for a major cyber threat to occur to prove that smart devices are vulnerable to viruses and malware. Contact an information technology professional for more information.



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### Portable Digital Storage

By Richard Durand, President, Wisconsin All Computer Users Club  
December 2013 issue, WAUC Talk, [www.wauc.info](http://www.wauc.info), [rgdurand \(at\) yahoo.com](mailto:rgdurand@yahoo.com)

When I first joined WAUC in 1995, I noticed that some members would always come prepared to meetings and events with some 3.5" floppy disks. These disks were very useful for passing along or receiving files of photos, documents, and even programs. The 3.5" disk had a larger capacity than the previous 5.25" disks but wasn't much more reliable. I remember having a lot of problems getting these disks to be recognized in disk drives. Still, when they worked, they worked very well. They were relatively portable and handy to have along anytime one was out and about.

Of course, for portable storage, floppy disks have long been replaced by USB flash drives. When these were first available, they were incredibly expensive and by today's standards their memory capacity was very small.

I am now embarrassed to reveal how much I paid for my first USB flash drive (which I still have somewhere). It was a lot. But as I think back on it, I carried it around and used it for a long time and it's one of the things I can say I really got my money's worth for. All the other much smaller and slower items of computer equipment at that time cost a lot more also.



Today, USB flash drives are much more affordable and come with unbelievable memory capacities. If you don't have one, this is a good time to pick one up. I have found that for something to carry around, the most affordable ones with the smallest memory sizes are the best. For most purposes, one doesn't need that much memory and if one should lose a flash drive, something almost inevitable with something so small, one hasn't lost that much value.

If you get a chance, pick up an extra one to have as a backup in case you lose the one you already have. And as another precaution, transfer the files on your flash drive to your regular computer as often as possible.

There is now an even smaller and handier form of portable storage available, the SD memory card. These were first used as portable memory for digital cameras. To transfer photo files to a computer one had to connect the camera or an external card reader to one's computer. For some time now, computers, laptops, the new tablet and e-reader products sometimes come with a built-in slot for SD memory cards. If yours has an SD card slot, go ahead and take advantage of it and if not, look for this feature in your future computers and devices. An SD memory card can hold all the different files a USB flash drive can including documents and music files, not just photo files. It is even smaller and easier to carry than a USB flash drive and also easier to lose. One might want to carry it in one of those little plastic cases they sometimes come in. The same advice for USB flash drives applies to SD memory cards also. To be prepared for anything, you can have one of each on you.

USB flash drives and SD memory cards are so small, portable, and useful that you may find yourself with a lot more than you ever expected to have. I'm sure a lot of members have been using these items as portable storage for a long time already. This column is just a way of saying how practical they are.

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## **Book Review – Monochromatic HDR Photography by Harold Davis**

Review by Mark Mattson, Editor, Computer Users of Erie, Pennsylvania  
www.cuerie.comc cuerie01 (at) roadrunner.com

Color is the best. Color sells. Color is what a real photograph is. Color is the only photography I will ever do.

How short-sighted and closed-minded a lot of people can be. Yes, color imagery has a look and feel all its own, and can evoke emotions in most any viewer. But to limit oneself and one's work to just color is missing out on a whole world that awaits exploration: the world of monochromatic imaging.

Photography was born in the early days of the 19th century, approximately 1826 or 1827...the exact date is lost in history. In those days, ALL photos made were monochrome - or black and white. Color photography experiments began around 1860. But an affordable, long-lasting color film and process did not appear until 1935 when Kodak introduced their Kodachrome line of films.

Even after the advent of color films for general purpose photography, black and white continued to be a popular medium to work in. Most of the more famous photographers worked in this field, including Ansel Adams, Steiglitz, and others. Through hard work and countless hours in the darkroom, they produced amazing images that are classic examples of the art form.

Digital imaging has made the processes vastly easier, by giving you instant feedback on your exposure and composition, and post-capture processing now takes place in the 'digital' darkroom, as opposed to the traditional 'wet' darkroom of days gone by. Digital imaging has also introduced a new technique known as HDR, or High Dynamic Range imaging, a method where combining a sequence of exposures extends the range of tones you can capture well beyond the range of the camera.

In his newest book, author and photographer Harold Davis explores the world of Monochromatic HDR imaging as a way of producing high quality fine art images with impact and emotional meaning for the viewer.

This volume is jam-packed with not only step-by-step tutorials and tips on how to achieve the best images you can, it is also overflowing with sample images created by author Davis to explain and demonstrate the techniques covered in the book. Practically every page has a photograph on it, with technical information presented on how the image was created. The images in this book make the purchase price worth it alone.

The scope of this book is wide. In only 209 pages, he presents 53 topics arranged into 4 sections, touching on topics ranging from RAW processing, HDR sequence shooting, Lightroom and Photoshop techniques and more. But the basics are not forgotten either. There are pages devoted to teaching you how to visualize your final image in black and white before you shoot it, and learning how to see in monochrome.

One point to remember, though, when capturing images to make monochrome prints: be sure to capture them in COLOR. Processing images from black and white is done using the color channels of your master file. When it's time, you then convert the original color capture to the monochrome state. If you do this, you can always go back and produce color versions of the image as well. If you set your camera to shoot in black and white you will lose this ability.

Monochromatic HDR Photography is published by Focal Press ([www.focalpress.com](http://www.focalpress.com)).

I've done a lot of monochrome shooting in my days. Most of it was done when I was shooting film, as this was early on in my photography days. I've tinkered some with converting my color digital images into black and white, but haven't found yet the right way to go about it.

Until now.

When I read through this book for the review, I learned a lot about how I should be doing things, to get the images I really want to show. A lot of the concepts I've known now for some time, but just haven't made the connection to monochrome. With Harold and this book I now have a guide to show me the way on this new journey.

The list price is \$39.95, but if your group belongs to the Focal Press User Group Program, you get a 40% off. It is also available at Amazon.com for \$27.76 (plus shipping). In either case, the ISBN number is 9780415831451.

