PATACS Posts

Newsletter of the Potomac Area Technology and Computer Society

Useful Bits & Pieces—February 2014
By Lorrin R. Garson, PATACS

Another Security Threat—CryptoLocker

It never ends! CryptoLocker is new ransomware which allows cybercriminals to encrypt files on your computer and make them unusable until you pay a $100-$300 ransom in Bitcoins to the scoundrels to de-crypt your files. Apparently the villains do decrypt your files, but you can't depend on it. Infections of the encryption software are through attachments on e-mail (bogus tracking notifications from UPS or FedEx) and by clicking on links on some Web sites. The usual pre-cautions should be taken in handling e-mail from someone you don't know and using new and unknown Web sites. Apparently this malicious software can also be spread from computer to computer as well. For more information see http://readwrite.com/2013/11/08/cryptolocker-prevent-remove-eradicate#awesm=~omTXgayBlVxqTn and http://www.us-cert.gov/ncas/alerts/TA13-309A. SpiceWorks offers a CryptoLocker prevention kit (see http://community.spiceworks.com/topic/396103-cryptolocker-prevention-kit-updated).

$2 Million Contest

How are your computer skills? Are you feeling lucky? DARPA (the **D**efense **Ad**-vanced **R**esearch **P**rojects **A**gency) is sponsoring a contest to develop an automated mechanism to protect computer networks from attacks; a method that can run without the need of human maintenance or inter-vention. See http://www.darpa.mil/NewsEvents/Releases/2013/10/22.aspx for details. Incidentally, DARPA (originally named ARPA) was instrumental in the development of the Internet.

iPad Air vs. Kindle Fire HDX

Which of these two would you expect to have the best display? Historically Apple has been noted for the highest quality display in its products, but in this case, surprisingly, the Kindle is the winner. To quote from http://appleinsider.com/articles/13/11/04/amazons-kindle-fire-hdx-beats-ipad-air-in-display-test, "Most impressive of all is the Kindle Fire HDX 8.9, which has leapfrogged into the best performing Tablet dis-play that we have ever tested". Competition is won-derful!

Inside

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SysTools PST Viewer

Those who use Microsoft Outlook may find this utility useful. Outlook stores its data in .pst files, which includes e-mail, contacts, calendars, tasks and notes. PST Viewer is a freeware tool that allows you to access .pst files to view contents and see if any are corrupted, but not edit or export data. It can be downloaded from http://www.systoolsgroup.com/pst-viewer.html Corrupted .pst files can be recovered using Outlook Recovery ($49) or Outlook PST Viewer Pro ($69), which can also repair .pst files as well as export content to pdf.

Memory of the Future

Micron Technology, Inc. is shipping engineering samples of 2-GB memory modules rated at 160 GB/s. The theoretical limit of this technology is 320 GB/s. Current DDR3 RAM (1,600 MHz) used in many applications, including home computers, runs at 12.8 GB/s. This 12-25 increase in speed could have a profound impact on computing. This technology isn't likely to appear in consumer devices for several years. For more information see http://investors.micron.com/releasedetail.cfm?ReleaseID=793156

Adobe Seriously Hacked

Numerous sources, including the "Holiday 2013 edition" of *MaximumPC* (pp 9-10), have reported that Adobe was seriously hacked last October with data on 2.9 million customers being compromised. Also source code for Adobe Acrobat, ColdFusion, and ColdFusion Builder was accessed (downloaded?). Historically Adobe Acrobat/Reader has been consistently problematic in terms of security with frequent patches being released. If you use Adobe Acrobat Reader, consider one of the following alternatives: Foxit Reader (Windows & Linux), Nitro PDF (Windows & Mac), PDF-XChange (Windows only), Preview (Mac only), or Sumatra PDF (Windows only).

Price of Apple Computers

Do you think the prices of Apple's PCs are high compared to PCs? Yes, it's true and the difference is getting greater. The following is quoted from http://tech.fortune.cnn.com/2013/11/19/apple-mac-charlie-wolf/?iid=SF_F_River "…the average price of a Mac has fallen at an 0.7% annual rate, reflecting Apple's strategy of enhancing its Macintosh family with upgrades, such as faster processors and superior screens, while maintaining the same price points... In comparison, the average price of a PC has fallen at a 4.9% annual rate. Over the 11-year period, then, the ratio of the average price of a Mac to the price of a PC has increased from 1.42 to 2.12... It stands to reason that as the price of an item increases, consumers will buy less of it."

Helium Filled Disk Drive

HGST (a Western Digital company) is now selling an enterprise-grade disk drive called the Ultrastar He6 (see http://www.hgst.com/hard-drives/enterprise-hard-drives/enterprise-sas-drives/ultrastar-he6). This is a 6-TB 3.5 inch device. Manufacturers have tried for years to economically create a hermetically sealed, helium-filled hard drive. There are significant advantages in such a drive: (1) helium has about $1/7^{th}$ the density of air which results in less resistance and turbulence of spinning platters, (2) helium has about 7 times the thermal conductivity of air which aids in cooling, and (3) helium is inert unlike air which contains oxygen. All this results in a more efficient disk drive that is quieter and runs at a cooler temperature. It's uncertain when this type of HDD will be found in home computers.

Buffalo DriveStation DDR

This is an unusual external disk drive which comes in either 2-TB or 3-TB capacity. What makes it special is the device has a 1-GB of DDR RAM inside the enclosure, which provides a dedicated buffer to the internal disk drive. The result is the DriveStation DDR provides a remarkable sustained maximum disk write speed of about 210 MB/sec. This approaches the speed of some slower solid-state devices, well, until the capacity of the 1-GB RAM is exceeded. The device is connected using USB 3, which as a maximum throughput of 600 MB/sec. However, if the device is connected to a USB 2 port, throughput would be limited to 40 MB/sec. See http://the-gadgeteer.com/2013/09/09/buffalo-drivestation-ddr-review/

Linux and Open Source News

By Geof Goodrum, Potomac Area Technology and Computer Society linux(at)patacs.org

OpenStreetMap

There are many online map services to help you find places and get around, but most have restrictions on reprinting or publishing the maps, particularly with regard to copyrights on the map data itself (Google Maps http://www.google.com/intl/en_us/help/terms_maps.html MapQuest http://info.mapquest.com/terms-of-use/, Microsoft Bing http://www.microsoft.com/maps/product/terms.html)

The OpenStreetMap (OSM) Project (http://www.openstreetmap.org) is different. Volunteers (amateur and professional) worldwide contribute to OSM map data under an open data license that allows free reuse as long as OSM contributors are credited (http://www.openstreetmap.org/copyright). Anyone can alter or build upon the data in certain ways, but must distribute the result only under the same licence. The OSM Project encourages everyone to contribute and improve the map data, with an emphasis on local knowledge. That is, you probably know more about your neighborhood trails, bike paths, businesses, road construction, and other map features as they exist today than a cartographer in an office across the country. An OSM account is required to add and edit map features, but even anonymous guest users can post notes on maps indicating errors or suggesting improvements.

There are five selectable OSM map layers: Standard (default, shows all map features), Cycle Map (highlight features and services for bicyclists, also see http://www.opencyclemap.org/), Transport Map (highlight public transportation), MapQuest Open (an open data collaboration with MapQuest), and Humanitarian (focus on disaster relief efforts in developing countries). These and others are described at http://wiki.openstreetmap.org/wiki/Featured_tiles.

The OSM Project home page initially displays a Standard layer map (Europe and the United Kingdom), and a welcome window with a location search box (using http://www.geonames.org/, another open data project) in the upper left. Across the top are menu items for Edit (current map view), History (recent edits to OSM map data), and Export (download selected map data) along the left, and GPS Traces (GPS data entries), User Diaries, Copyright, Help, About, Log In, and Sign Up. On the right side is a toolbar with icons for zoom in and out of the map view, "Show My Location", map layer selection (also displays checkboxes to show Map Data and Map Notes), share (create embedded HTML or a web link to the current map view, or export the view as a graphic file), a map key (only for the Standard map layer), and a tool to add notes to the map for other mappers to see (useful for indicating map errors or updates). Mouse controls include double left click to zoom in on the map view, and holding the left button while move the mouse to scroll the map.

The OSM online map lacks features for casual users such as aerial photographic (or "satellite") views, routing directions, and traffic information, although other projects are using OSM map data for add-on functions (http://wiki.openstreetmap.org/wiki/Mapping_projects). The online help (both a help section for Q&A and a wiki for documentation) is more useful to the data contributors than those who simply want to view a map.
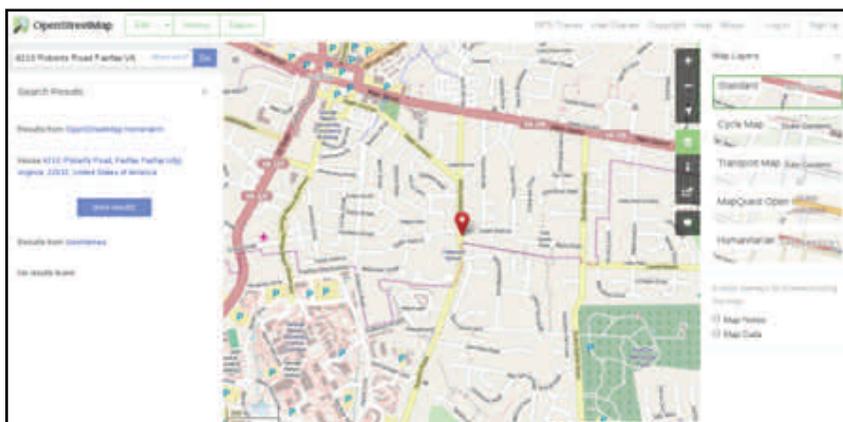
(Continued from page 3)

Despite this, the OSM maps are well marked and easy to read, with excellent detail where volunteers have contributed their time and knowledge. The open data license makes it easy to republish maps or embed them on web sites by only providing credit to the OSM contributors.

Another good resource for online maps may be your local or state Government, which have offices that maintain maps. These maps usually have linked databases for land use, home values and owners of record. For example, the City of Alexandria Virginia web site is http://www.alexandriava.gov/GIS and the Fairfax County Viriginia web site is http://www.fairfaxcounty.gov/maps/ However, I have found that such sites sometimes require the use of proprietary software tools that aren't supported on all operating systems. This is not a problem with the OSM maps.

Featured Open Source Software of the Month February 2014

The software described below can be downloaded at the links provided or copied onto a USB flash drive at the PATACS Fairfax meeting. However, please check the online package management tool included with your GNU/Linux distribution first, as installation is often just a click away.

Eclipsed – v3. http://pyweek.org/e/unifac17/
Free python code by Christopher Night/Universe Factory Games. Eclipsed is a 3-D Real-time strategy game set on the surface of a few moons in the Solar System, which won the Individual author category of the Py-Week September 2013 Python Game Programming Challenge. Eclipsed requires pygame, pyOpenGL, and numpy libraries (available in most GNU/Linux distributions).

PortableApps.com – v11.2. http://portableapps.com/
Free Open Source (GPL, LGPL, MIT, MPL, wxWindows Library) source code and Microsoft Windows executable (compatible with Wine for Linux, BSD, Unix, and Apple Mac OS X) by PortableApps.com. PortableApps.com lets you carry all your favorite apps on a portable device or cloud drive and use them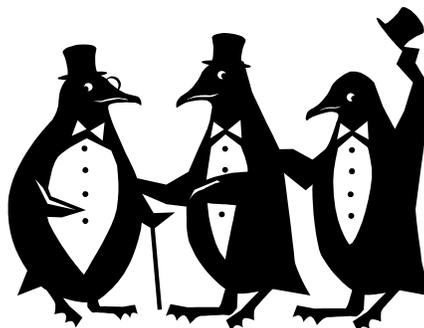 on any PC. Now you can have your own browser with all your bookmarks and extensions, your full office suite, your photo editor, your whole music collection, your favorite games, your development tools and more. You can have everything you need for work and play with you on every PC you use. At work, at home, at school, visiting family and friends, even while traveling. And all your bookmarks, emails, personal files and settings stay right on your drive, too. Now, every PC becomes your PC. The PortableApps.com Platform has an app store built right in, so you can find and install the apps you want with just a few clicks. List all the available apps by category, title, newest releases or recently updated. You can find your favorite web browser, popular games, handy utilities, educational tools, image editors, chat programs and more. There are hundreds of free apps available with new apps added every week. With no download limit, you can download one app or one hundred. Best of all, you don't even need to give up your email address to get them.

TheSSS – v7.2. http://thesss.4mlinux.com/
 Free GNU General Public License source code and bootable image by Zbigniew Konojacki. TheSSS (The Smallest Server Suite) is a lightweight server suite distributed as a live CD. It is designed for system administrators who need a small (less than 30MB) set of server software for small local area networks. The supported servers are FTP, HTTP, SFTP, SSH, and Telnet. A proxy server (Polipo) with the Tor anonymizer is also included. The main security components are a 4MLinux Firewall (based on iptables) and Clam AntiVirus. TheSSS images are fully compatible with UNetbootin, which can be used to create an easy-to-use TheSSS Live USB.

Kernel Source – v3.12.6. http://www.kernel.org/
Free GNU General Public License source code for all platforms by the Linux community.

Evaluating Online Health Information

By Ira Wilsker

Websites

http://www.nlm.nih.gov/medlineplus/webeval/webeval.html

http://www.nlm.nih.gov/medlineplus/webeval/webevaldownload.html

http://get.adobe.com/flashplayer

Now that the internet is universally available, with most homes having an internet connection, and with almost all smart phones and smart devices having some form of internet connectivity, it is only inevitable that we would use the internet for medical information. As with all other sources of information, the quality and accuracy of medical information varies greatly from reliable to outright dangerous and lethal. A search on any of the search engines for any medical term or drug will display a plethora of information. The problem is that the displayed information may not be reliable as while there are honest and accurate health information resources, possibly the majority are inaccurate. Much of the inaccuracy is due to bias, as parties interested in promoting a particular cause, device, or drug often "spin" or slant the information in order to persuade the viewer into purchasing a particular product.
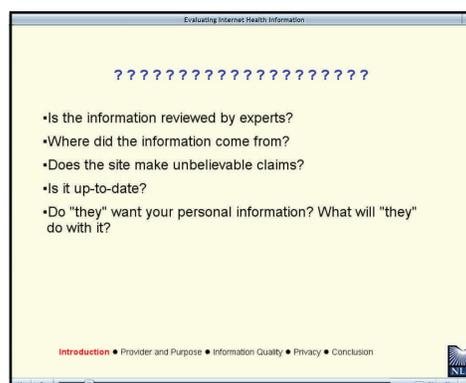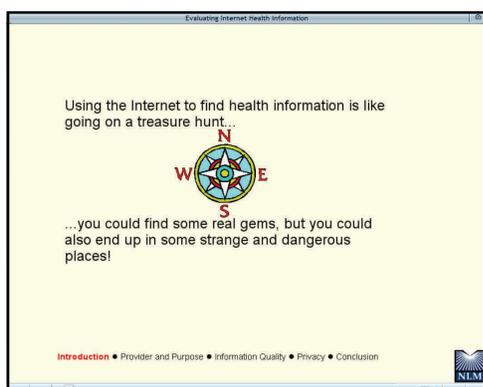
Several weeks ago, following the news that President Bush received a stent in order to improve blood flow, several "cardiac experts" appeared in the national media and on the internet touting an exciting, new medical device. According to these "experts" a new miracle device could be inexpensively and non-invasively used in any doctor's office to detect and predict future cardiac events. I looked up the device on the internet and found glowing physician testimonials on the manufacturer's website, along with a list of physicians that had purchased the device; none of my local physicians were listed as purchasers of the product. Being favorably impressed with what I read on the internet, during a recent, routine office visit, I asked my primary care physician about the test and device. Fully aware that it is totally normal for physicians to disagree on medical topics, he informed me that the device was of questionable value, has not been universally adopted in the cardiology community, and was (in his opinion) an unproven device of questionable value. While the promoters of the device may be serious about identifying potential cardiac problems, and lowering cardiac risks for patients, a careful rereading of the manufacturer's website made me slightly suspicious about the efficacy of this particular product.

Internet users may ask themselves about where and how they could find valid and accurate medical information. While no large website has absolute credibility with all users, some websites, such as WebMD, have a very good reputation as they use a peer review system to validate articles and postings.

To try and help consumers find reputable and reliable medical information, the National Library of Medicine at the National Institutes of Health (NIH-NLM) has released a 16 minute, self-paced video "Evaluating Internet Health Information: A Tutorial from the National Library of Medicine" available online at nlm.nih.gov/medlineplus/webeval/webeval.html. The video requires that the user's browser has the latest version of Adobe Flash Player installed. If necessary, the site connects to the proper Adobe Flash Player website to download and install the latest version of Flash Player. For those who may

Using the Internet to find health information is like going on a treasure hunt...

...you could find some real gems, but you could also end up in some strange and dangerous places!

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? ?

• Is the information reviewed by experts?
• Where did the information come from?
• Does the site make unbelievable claims?
• Is it up-to-date?
• Do "they" want your personal information? What will "they" do with it?

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prefer to download the presentation to their own computer, rather than view it online, a downloadable version is available as a ZIP file (compressed format usable by Windows), at www.nlm.nih.gov/medlineplus/webeval/webevaldownload.html

This NIH-NLM video presentation opens with a somewhat provocative warning, "Using the Internet to find health information is like going on a treasure hunt ... you could find some real gems, but you could also end up in some strange and dangerous places !' In a subsequent slide, the NIH-NLM provides the viewer with some questions that you might want to answer before blindly accepting the information presented on the site. These questions are, "Who runs the site? Why have they created the site? What do they want from you? Who is paying for the site? Does the site's information favor the sponsor?" Finding and interpreting the answers to these questions could provide the user with substantial insight as to the accuracy and reliability of the information that is presented.

In my own experience, not stated on the NIH-NLM website, I get especially suspicious when some miracle cure or product is so effective that it claims that a cabal of government agencies and drug makers is trying to suppress the displayed information in order to protect the drug makers' profits from superior competition. Parallel to this, I saw on one particular herbal drug website that was touting miracle cures, weight loss, and the anti-cancer properties of a particular herbal supplement that both of the federal agencies, the FTC and the FDA were trying to ban their miracle product in order to protect the "big pharma" drug companies. The website warned that if the reader was even remotely interested in this product, they need to buy a lot of it right now, and stock up on it, before it is banned by the government, and no longer available. I might see how some conspiracy theorists with their aluminum foil hats might fall for this ploy, but ration-

al readers might be suspicious about this product and the seller that is touting it.

The NIH-NLM video continues with additional questions for the viewer; "Is the information reviewed by experts? Where did the information come from? Does the site make unbelievable claims? Is it up to date? Do 'they' want your personal information? What do they do with it?" Responses to these inquiries might appear to be self explanatory, but consider the sources of the information; while the author of the page may make the sources sound impressive and credible, a simple web search could uncover additional, possibly contradictory information. Consider the desperation of people with advanced stage cancer, crippling orthopedic problems, complications of diabetes, and other debilitating illnesses. Do another web search for any of the above ailments, and there are multitudes of websites offering unbelievable cure rates, miracle surgeries in foreign clinics, and rare non-conventional drug treatments. For some outrageous sums of money, these websites can "guarantee" a cure of whatever malady ails you.

In the NIH-NLM video is an example of how misleading information can be found on the internet. Using a fictitious high cholesterol example, the video displays two impressive (but fake) sample websites to demonstrate how charlatans ensnare the unwary. One of these faux websites has the impressive moniker "Institute for a Healthier Heart", while the other is an equally impressive "Physicians Academy for Better Health". At first glance these sites appear to be very professional, and include some truthful and readily available information on cholesterol. This apparent "first impression" of credibility can trap the user into falsely believing that the other content is also truthful, when in reality it borders on fraud. The NIH-NLM video recommends that users click on the "About Us" link to get information on the people or
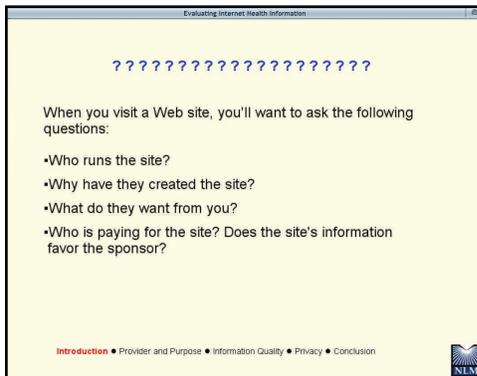
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organization running the website, but keep in mind that people who will mislead a user into entrusting them with untold sums of money promising miracles, may also be less than honest about their identities on the "About Us" page.

The NLM-NIH video also warns about any advertising displayed on the webpage; is it clearly labeled as an advertisement, a common practice on legitimate websites, or is advertising incorporated into the website content, without attribution that some content is advertising. Likewise, NIH-NLM recommends that users check the "Contact Us" information to see if the contact information is complete and realistic, or is simply a contact to reach a webmaster. While not totally within its purview, I like to check the Better Business Bureau website (bbb.org) for the URL (web address), name, or phone number to attempt to verify the bona fides of the site and those behind it. A web search for references on Google, Yahoo, Bing, or other search engines may not be totally reliable because unscrupulous website operators also often create bogus secondary websites with glowing reports, or plant glowing reviews in online blogs and social media websites. There are also many cases of people who are paid to post positive reviews in the social media to create a "positive buzz" about a particular company, again to trick people into believing that a crooked website is really legitimate.

The internet should not be used as a substitute for discussing medical concerns with your healthcare practitioner, so if there are any doubts or concerns, decisions should be made with your healthcare professional, and not solely based on wild claims on a website. While I have often closed these columns with the expression that "Information is Power" it is critical to know that incorrect or misleading medical information can be dangerous ... or even lethal.

I/O, I/O, It's Off To Work We Go

By Phil Sorrentino, Past President, Sarasota PCUG, Florida
November 2013 issue, PC Monitor
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The work I'm talking about here is computer data transfer. I/O or Input/Output is a term used to collect all the ways you can move data into and/or out of a computer. (This may be a review for some, but there are a few new ideas that might make it worth the time.) For all of those that have been with computers from the beginning, circa 1980, the only way into or out of your computer, then, was through the serial and parallel ports (the keyboard, mouse, and display interfaces were really internal and were only used for their intended purposes). Fortunately, the serial and parallel interfaces have been replaced with interfaces that are much faster and much more flexible and easier to use. Today, most of the I/O is conducted over the Universal Serial Bus (USB) interface. However, there are a few special purpose interfaces that have become basic to computer use.

Early on, audio was included in the computers bag of tricks so we now typically have an audio-in for a microphone and an audio-out for speakers. Many computers also have another audio-in, usually tagged as line-in. Audio-out is typically used to drive external speakers and line-in is typically used to input a stereo analog signal for use by audio processing software. Also added early on was an Ethernet connection which has become the computers on-ramp to the Internet. Yes, and Wi-Fi (Wi*reless*-Fi*delity*) has certainly become the mechanism for all, laptops, netbooks, tablets, and smartphones to get on to the Internet. Wi-Fi is a wireless I/O and therefore needs no connectors or wires. It is all accomplished by the transmitter and receiver hardware and software, within the computer. There are two other wireless interfaces, Bluetooth and NFC. Bluetooth is becoming very popular as a way to easily connect various Bluetooth compatible devices to the computer with no wires cluttering up the computer area. Bluetooth sets up a PAN (Personal Area Network) around the com-

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Provider
Who is in charge of the Web site?
Why are they providing the site?
Can you contact them?

Funding
Where does the money to support the site come from?
Does the site have advertisements? Are they labeled?

Quality
Where does the information on the site come from?
How is content selected?
Do experts review the information that goes on the site?
Does the site avoid unbelievable or emotional claims?
Is it up-to-date?

Privacy
Does the site ask for your personal information?
Do they tell you how it will be used?
Are you comfortable with how it will be used?

Print this checklist

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Are We All Turning Into Magnetic Ink?

By Greg Skalka, President, UCHUG (Under the Computer Hood UG), CA April 2013 issue DriveLight www.uchug.org president (at) uchug.org

I've miles
And miles
Of files
Pretty files of your forefather's fruit and now to suit our great computer,
You're magnetic ink.
(From "In the Beginning" by Graeme Edge,
from the album "On The Threshold of a Dream"
by The Moody Blues, 1969)

Are we all turning into magnetic ink? That poem was written over 40 years ago, before the Internet, server farms, Amazon.com, big data, social media and digital image recognition, yet it predicts a road we are traveling down now. In the liner notes, it is the "Establishment" that speaks these words, with the goal of turning man into a quantifiable set of data. Are we all on our way to being defined by our data?

Companies compile more and more data about our habits and preferences, reducing our privacy and our ability to remain anonymous. From Google's targeted advertisements to Amazon's purchase suggestions, we are being reduced to a database of our likes and dislikes, ready for commercial exploitation. Our web searches are tracked so we can be presented with "more relevant" advertising, but the goal is more effective advertising, meaning more sales for less cost. It may be nice to be presented only with things we really would be interested in, but when algorithms are implemented incorrectly, it can lead to limiting and even inaccurate suggestions. I once bought my daughter a lamp she wanted as a gift from eBay; now I regularly receive suggestions for other lamp purchases, something I care nothing about. The history of one oddball purchase may haunt my account forever.

A bigger problem is privacy in this era of commercial digital surveillance. From all this seemingly innocent and inconsequential data being collected about us, we could become defined by our purchases (like the lamp) or our searches. It has probably gotten to the

point that one must be careful about what one searches for on Google, or any other search engine.

While the Internet represents an almost unlimited data resource, asking for the wrong things could get you in trouble, or at least earn you an undesirable label. This goes way beyond the obvious illegal activities like child pornography or online involvement with hate groups. Simply searching for information about embarrassing topics like incontinence or a gambling problem can put those topics into your "profile", so later ads reflect those issues. When you let someone else use your computer, those embarrassing issues may be revealed. And since that data is out of your control, who is to say that someday a record of your searches on cancer won't be sold to life insurance companies that could use it to deny you additional coverage.

Though the commercial world probably collects more data, governmental categorization of all of us is even more troubling. Repressive governments all over the world use data collected on their citizens in bad ways. Searching on the wrong topics in some countries can lead to imprisonment. Here we would hope to have more freedom and privacy, but some day, following another incident like 9/11, could we find a misinterpreted web search leading to a visit by the FBI or inclusion on a no-fly list?

There are also real criminals out there trying to collect data on us. Whether it is data to be sold or used for identity theft, or personal information from social media sites exploited for scams, home burglaries or child abductions, our data is sought after by malicious people intent on taking advantage of us. Once again, this may be data that we have no control over, stored on company servers, perhaps with poor safeguards.

Unfortunately, we are often willing, though possibly unknowing participants in this conversion of our lives into data. All the information we freely share on social networking sites can be a treasure trove to marketers, prospective employers and anyone interested in taking advantage of us. As time goes on, new ways are developed to monitor each of us, from location tracking through our phones, keyword analysis of our emails and facial recognition and tracking of our movements through security camera images. Even data collected with the best of intentions can fall into the wrong hands, or the intentions of the collectors can simply change. Once lists are started for convicted criminals, sex offenders, the mentally ill and poten-

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tial terrorists, how hard would it be to make more lists, like of those that complain about the government? After all, we are only data.

Where To Put All That Data

All the data we store, and that others store about us, has to be kept somewhere. Today it is stored not in the "magnetic ink" of magnetized domains on recording tape, but in magnetized regions of spinning metal platters. Mechanical hard drives, though losing out in some applications like tablets and phones to solid state memory, are still the primary means of bulk data storage. Seagate recently shipped its two billionth unit, the first hard drive manufacturer to reach that milestone. That is a hard drive for almost every third human on earth. While that seems amazing, what is really of interest is how they got to 2 billion. They have been making drives since 1980, and took 29 years to produce and ship their first billion units. Their second billion took only four years.

That is a tremendous amount of digital storage, especially since that last billion were probably each 100 GB or larger drives.

This exponential increase in cumulative drive capacity is necessary, as our need for storage grows exponentially. In 2007, we were uploading just over 5 hours of video to YouTube each minute. Now it is estimated that 72 hours of video is uploaded per minute to the site. To put this in perspective, if you were in the habit of watching YouTube 12 hours a day, every day, then in the five minutes it will take you to read this column, another month's worth of new content was put on the site. The break is over; get back to watching!

High-Tech Pants

I just bought a new pair of my favorite kind of pants, Costco's Kirkland blue jeans, and got a surprise. Costco jeans have gone high tech. The product label advertises a new feature I'd not seen before — a cell phone pocket. It seems that Costco has tinkered with the classic five-pocket design and turned the small right front coin pocket into a cell phone pocket. They made that pocket deeper and a bit wider, so it could hold a standard cell phone. A large smartphone would probably be a tight fit. Of course, making that pocket so much deeper makes it useless for holding (or at least extracting) coins.

Most people today think that fifth pocket was designed for coins, but in the days before cell phones and wrist watches, it was meant to hold a pocket watch (the kind on a chain). That was the intended purpose of that pocket on the first Levi's 501 jeans introduced in 1890. If this cell phone pocket thing catches on, it would thus be appropriate, as many people have stopped wearing wrist watches, using their cell phones as timepieces instead. If we get to the point where we also use our phones for making retail purchases like they do in Japan, then we won't need to worry about where to put our displaced coins either.

Just A Minute

Intel has produced a graphic and video outlining what happens today in an Internet minute. It shows 639,800 GB of global IP data transferred on the Internet in a minute, with the amount of various activities in that time listed. Some numbers are staggering (6 million Facebook views, 204 million emails sent), some are crazy (320+ new Twitter accounts, 1.3 million video views) and some are scary (20 new victims of identity theft, 135 botnet infections). And just as with hard drive shipments, future growth for the Internet appears to be exponential. Today the number of networked devices equals the global population; by 2015, it will be 2x.

If the Internet and the number of devices on it keep growing this way every minute, it won't be long before humanity is minute by comparison.
http://intel.ly/wjibt1
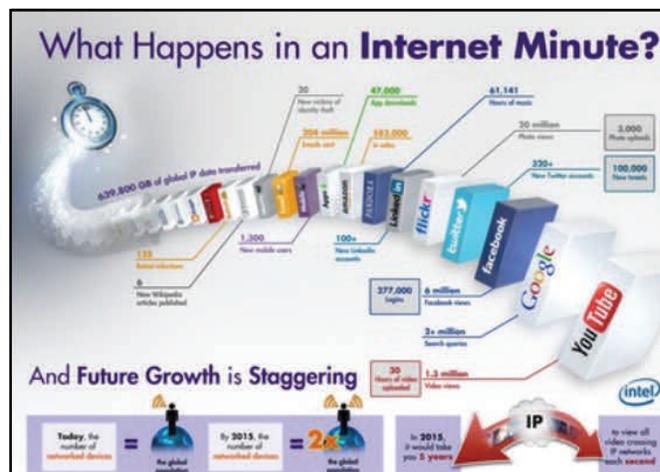
Goodbye XP

By Dick Maybach, Member, Brookdale Computer Users' Group, NJ October 2013 issue, BUG Bytes www.bcug.com n2nd (@) att.net

On April 8, 2014 Microsoft will stop supporting Windows XP and Office 2003. After that date there will be no new security updates, non-security hot-fixes, free or paid assisted support options, or on-line technical content updates. However, all your software will continue to work just as well as it did on April 7, so you needn't panic, but it would be prudent to come up with a rational transition plan. There are three choices: (1) continue to use XP, but take some precautions, (2) keep your present hardware, but upgrade the software, and (3) purchase new hardware and software. The hardware and software vendors as well as the media in which they advertise prefer that you take the third approach, but let's consider all of them.

There are many advantages to staying with XP, which may not hold with the other two approaches.

- Your present hardware works with it.
- Your present applications run under it.
- It supports your present peripherals.
- You don't have to learn anything new.
- It costs less than the alternatives.

The main disadvantage is that as time goes on, you become increasingly more vulnerable to attack over the Internet and by malware. You can reduce this and its consequences by the following.

- Before April 8, 2014, use Microsoft Update to install the latest patches to all your Microsoft software.
- Update all your anti-malware software, and check that the vendor will continue to support it for XP after April 8. If not, change to a vendor that will.
- If you are connected to the Internet through a router, install the latest firmware in it. If your PC connects directly to your ISP's modem, purchase a hardware router, and update its firmware if necessary. For good measure, if you haven't already, install a software XP firewall.

- Be very careful about what you download, and avoid doing it if possible.
- Review your backup program; improve it if needed, and resolve to follow it rigorously.

The wording on the MS Website implies that old patches will remain available, but why take a chance? Update your software early, as the download rate may slow near the deadline. At the present time, about 35 per cent of the computers in the world use XP. This is a sizable market for anti-malware vendors, and I would expect them to continue supporting XP for some time. Your first line of defense against Internet aggression is your router and its firewall. Most likely, your ISP's modem also includes a firewall, but how careful is he about keeping it up-to-date? You don't know. With your own router, you have ability to keep it up to date, and as a result, having one is desirable even if you have only one PC. Despite all your precautions, as time goes on, and the bad guys find more XP vulnerabilities, your risk will increase. Be wary of any download, including e-mail attachments from friends. The best malware defense is to keep it off your PC. Your last defense is your backup program. Any information you haven't backed up on an external drive is one mouse click or one device failure away from trash. Although its most important to back up your data, you should in addition make an image backup of everything on your hard disk, because once XP becomes an orphan, applications and drivers for it will become increasingly difficult to find.

The second alternative is to keep your hardware, but change your operating system.

- Your vulnerability will be less than if you stay with XP.
- If your PC is old, it may not support some current operating systems.
- Your present applications may not run under the new OS.
- Drivers may not be available for some of your peripherals, requiring you to replace the devices.
- You will have to take care during the transition not to lose any data.
- You will have to learn new ways of working.

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The hazard with this approach is that to install a new operating system, you generally must format your hard disk, but you must first insure that all your data is safe and readable by the applications in your new OS. For example, if all your financial records are stored in Quicken files and there is no financial program available in your new operating system that can understand them, you essentially have lost all your financial records. A second problem is to insure that your current hardware supports the new operating system before you format your disk. If you are considering a newer version of Windows, run the Windows Upgrade Advisor (available at http://windows.microsoft.com/is-is/windows/downloads/upgrade-advisor for Windows 7). Don't forget to check your peripherals; I found that there was no Windows 7 driver for my scanner and had to buy a new one when I upgraded from XP. If your PC is compatible except for insufficient RAM, this is an inexpensive upgrade, even if done by a shop. (You should have at least one Gigabyte of RAM, even if you stay with XP.)

Consider Linux, especially for a secondary PC. I've converted two XP machines to Xubuntu (http://xubuntu.org), which is more responsive than XP on old hardware. It has the advantage that you can try it out with a "live-CD," which is bootable from a CD drive. It will be slow in this mode, but since it doesn't make any changes to the hard disk, you are just a reboot away from XP. While running Xubuntu, all the files on your hard disk are available, so you can check whether Linux applications can read them. (Instructions on how to create a live CD or DVD in Windows are available at http://www.ubuntu.com/download/help/try-ubuntu-before-you-install) If you have room on your disk or can add a second one, consider a dual-boot system in which you can run either system. (All your Windows files will be accessible in Linux, and Windows applications are available that can read Linux disk partitions.) However, Linux is not Windows, which means there are many differences between the two systems. Try to find a sympathetic, experienced Linux user to help you get started, especially if you are less than comfortable in adventure mode.

The third alternative, buying new hardware and software is the easy and safe, but expensive. You are probably best off to purchase new components. XP-era processors, RAM, displays, and hard disks are woefully inadequate for any current OS. Keyboards and mice now cost just a few dollars, and your old ones may use obsolete connectors. You can keep your printer and scanner if drivers are available for the new OS; your old speakers will be fine.

- Your old PC with your data, applications, and peripherals remains available for use.
- You will probably have to purchase new applications for your new OS and probably some new peripherals, especially if the existing ones are several years old.
- There will be a learning curve for the new system.

Spend some extra money; in particular, get more RAM and a larger disk than you think you can get by with.

I haven't considered a piecemeal hardware upgrade, because I don't think it's cost-effective. Most modern CPUs are incompatible with XP-era motherboards; new motherboards are usually incompatible with XP-era cases and expansion cards; and old RAM is incompatible with both modern CPUs and motherboards. My preference is to get a new PC up and running with all the essential software installed, and keep the old PC operating until you are comfortable with the new one and are sure that it has all the applications you need and that all your data has been successfully transferred to it.

Internet Alerts Can Keep You Informed

Sandy Berger, CompuKISS.com
www.compukiss.com
sandy (at) compukiss.com

How would you like to know every time your name is mentioned on the Web? Or when there is a breakthrough on a disease that you are following? Or when your favorite actor is starting in a new movie? This is all possible with automated Internet alerts. Read this to see how it works.

Internet alerts are available by many different Internet services. The Weather channel at www.weather.co has free alerts that will give you daily weather alerts as well as alerts for allergens like pollen and also alerts for severe weather. Other alerts will keep you informed of the weather on school days and give warnings for snow and rain. You can apply several customization options such as the time of the alert and the severity that triggers the alert. You can get alerts sent by e-mail and/or text to a cell phone.

Many news stations also have alerts regarding news, sports, and weather. One of my local North Carolina stations, WRAL (www.wral.co) even has an app that uses GPS to alert you to severe weather no matter where you travel as long as you have your cell phone turned on. While most other alerts are free, WRAL charges $8 a year for their GPS-based alerts. Check your local news stations for news alerts.

The granddaddy of all alerts, Google Alerts, is a very useful one that you should be aware of. This is one of Google's powerful tools that is completely free. You can use Google Alerts to keep track of anything on the Web. Just surf over to http://www.google.com/alertshttp://www.google.com/alert and enter a search query. Then choose your options. You can control how often you get alerts (as it happens, once a day or once a week), the type of Web coverage that triggers an alert (news, blogs, video, discussions, books, or all of these), and you can also choose only the best results

or all results. Enter your e-mail address and your alerts will start. You can change or remove an alert at any time. Once you start using Google Alerts, you will be surprised at the results.

Most people start with creating an alert with their own name. My "Sandy Berger" alert tells me when any news article or blog mentions my name. Of course, it also gives me results for the other Sandy Berger. You know—that guy from the Clinton administration who stuffed documents from the National Archives into his pants. Unless you have a very unusual name, you can expect to get news of others with the same name. That's not all bad. In fact, it can be very interesting.

The Google Alerts can be wonderful if you are following the news about a certain item. For instance, they are wonderful if you are interested in following a certain disease, medical condition or treatment. You can use Google Alerts to follow any current event or any specific public figure, actor, or personality.

If you are a transplant and want to follow the news from your old hometown, this is a perfect way to do it. Just enter the name of your old city and state in the search terms. If you want to be more specific, you can just enter the zip code. This will give you results directly from your old neighborhood.

When you set up a Google Alert, you may want to limit the results to just the best results and once a day. If you let Google give you all the results as they happen, I can assure you that you will be inundated with email.

You are sure to find many different ways to use Google Alerts. In fact, it is good to play with the Alerts a little to get to just want you want. Like any Google search, you can enter as many search terms as you like to narrow the results. You can put names in quotes to get exact matches.

Be creative with your alerts. You can have Google search for coupons for your favorite restaurant. You can use it to follow a company whose stock you may be interested in purchasing. You can use it to follow an item that you want to purchase.

puter, usually within 10 meters. Bluetooth is also finding its way into many places like the living room entertainment center and the automobile. NFC (Near Field Communications) is a very short range (less than 4 inches) wireless interface that may or may not be used on a computer but will probably be used with smartphones to help make the electronic wallet possible in the future.

Not so early on, around the time laptops became portable, rather than luggable, a video display output port started to appear. This became the very popular VGA (Video Graphics Array) output port (a.k.a. the RGB port because it provided Red, Green, and Blue analog video signals). The VGA port was typically used with an external display device like a larger display or a projector. For a brief time, the DVI (Digital Video Interface) began to take over the job of moving digital video information from the computer to an external display device, but it was soon overtaken by a more comprehensive and versatile interface. Today, the VGA and the DVI port, is being replaced by a digital multi-media port, the HDMI (High-Definition Multimedia Interface) port. The HDMI port carries both digital video and digital audio signals from the computer to a digital display device. (HDMI is also used in most new digital entertainment centers and digital televisions. Many new digital TVs even provide multiple HDMI input ports, so you can connect cable boxes and DVD players to the TV.) HDMI is also being used on small devices such as smartphones and camcorders and as such is being made available in mini and micro sizes.

So besides audio and video, most of the digital data that is transferred to and from the computer is done via the USB ports. Modern computers usually have multiple USB connectors (laptops maybe 2 to 4, and desktops may have 2 to many). The USB port is a rectangular plug that is keyed so you cannot plug the connector in incorrectly. The USB connector also provides a limited amount of power to the device connected to it, which can be used to charge a battery or even power the device. Because the USB connector provides power to the connecting device, many smartphones and media players charge their batteries through the USB connector. Currently USB is at version 3.0. (Early versions were 1.0 which was little used, 1.1 which was very popular but slow at only 12

Mbps, and 2.0 which was ubiquitous, and fast at up to 480 Mbps.) USB 3.0 devices began to appear in January 2010. USB 3.0 has a maximum data rate of 5 Gbps, yes that's 5 thousand Mega bits per second. That is a maximum and most data transfers will probably not be near 5 Gbps, but they will be very fast. Fortunately, USB 3.0 is backward compatible with both 1.1 and 2.0. Backward compatibility means that devices at any USB version can operate together, although the data transfer will only be at the speed of the lowest USB version. USB 3.0 connectors usually have a blue center post to identify them as 3.0. Because USB is used on so many small devices, like smartphones and tablets, USB connectors come in Mini and Micro sizes. USB has become so fast and ubiquitous that it has just about eclipsed the other, almost popular, serial bus, IEEE1394 (a.k.a. FireWire).

There are a few other interfaces that may show up on a higher-end computer. These tend to be for special purposes or are extremely fast. One interface, for the purpose of connecting external hard drives, is eSATA (external Serial Advanced Technology Attachment). This interface is not as popular as it was before USB 3.0 became available, but it is still a way to extend the computer's hard drive capability. Thunderbolt is another special purpose interface, rarely seen on typical computers, with speeds up to 10 Gbps. Thunderbolt can connect multiple compatible devices in a daisy chained configuration. DisplayPort is another special purpose Video Display interface that is very fast, it is advertised at up to 21.6 Gbps, and is designed for multiple displays. These very fast interfaces may be found on professional Display systems that require resolution and refresh rates far beyond those of HDMI. This type of display may be found in medical systems that may be used to display MRI Scans or X-Rays. DisplayPort may be found on some high-end machines, maybe gaming machines and if resolutions beyond 1080p ever find their way to the home, you may find DisplayPort driving those display devices.

The job of moving digital data around is tough work, but these interfaces seem to be up to the job, and I'm sure the ones that will come in the future will probably be faster, more versatile and even more capable.

Upcoming Meetings

Meeting Topic — February 15, 2014

Save Your Memory and Your Mind: 7 Steps to Better Brain Health"

Our meeting discussions usually center on hardware and software. In February, our speaker, Susan Wranik will talk about 'wetware' – the component truly vital to keeping our technology exploits really on track!

How many times do you say "I don't know" in the course of a day? Ever go to the store for a specific item, only to return with everything but? Do you go from one room in the house to another and forget what you went there for? Do your thoughts evaporate in mid-sentence? Difficulty finding the right word or recalling names? This program is based on the clinical protocol for treating short term memory issues and cognitive deficits related to stroke, traumatic brain injury, and dementia…but why wait? If it works clinically, it can work for you, too! Susan explains what's happening to your memory, why, and what you can do about it. She'll introduce 7 helpful strategies for better brain health, including a 60 second trick for recall.

Susan I. Wranik, a Milwaukee native, is a speech-language pathologist, linguist, speaker, and writer.

She has over 30 years experience in the communication field, initially as an interpreter/translator, and then clinically as a speech-language pathologist.

She earned undergraduate and graduate degrees at Georgetown University, and a Masters in Speech-Language Pathology at The George Washington University, with post-graduate work at Harvard and Johns Hopkins.

Meeting Topic Preview — March 15, 2014

From Television Sets to Communications Policy
(1) Connecting Your Home.
(2) Buying a New TV
(3) Things to Come in Communications.
Presenter: Frederick E. Ellrod III (Rick) is Director of the Communications Policy and Regulation Division of the County's Department of Cable and Consumer Services.

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MEETING SPEAKERS

Finding presenters for our meeting programs is difficult – your help in the effort to enhance the value we all receive from PATACS membership would be greatly appreciated!

Please consider speaking to your friends at an Arlington or Fairfax meeting. We'd love to feature your take on a smart phone or tablet app. A presentation on these or other topics of interest to you, would undoubtedly be welcomed by your PATACS colleagues. We have space in our schedule for 15, 30, 60 and 75 minute discussions - what are you waiting for?

We also have ready-made paragraphs you could use in email communications to help us find speakers. Contact: director2@patacs.org

NEWSLETTER EDITOR

One of our newsletter editors, Blair Jones, wishes to retire after nearly a quarter century on the job. She is getting increasingly stale on the job and having more trouble getting it "right" for the electronic version as well as the print edition.

Time for somebody else to take a crack at it!

Each editor does six issues a year, alternating months.

If you're interested, get in touch with either editor (editor@patacs.org) or any board member.

Thank you!

In Memoriam
WILLIAM LEON HIGGINS, PhD

It is with sadness we report the passing of a former member of the NCTCUG predecessor organization. Bill Higgins was a stalwart of the organization in the '80s and '90s, founding and actively participating in many SIGs, including one held in his home on Sunday mornings. Bill was probably responsible for initiating the meetings at Carlin Hall, which was two blocks from his home. We've missed him since his move to Ohio in 2001.

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Upcoming Topics

Saturday, Feb. 1 & Sunday, Feb. 2, 2 p.m.

       Backup and archiving

Saturday, Feb. 8 & Sunday, Feb. 9, 2 p.m.

       Malware Threats, Viruses, & Spam

Saturday, Feb. 15 & Sunday, Feb. 16.2 p.m.

       No Clinic

Saturday, Feb. 22 & Sunday, Feb. 23, 2 p.m.

       Windows® 8 Basics

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5711 S. 4th Street, Arlington, VA 22204
http://www.patacs.org/arlingtonmeetings.html

General Meeting
1st Wednesday (2/5) 7pm

Technology and PC Help Desk (SIG)
4th Wednesday (2/26)

Board of Directors
3rd Monday (2/17) 7pm

Fairfax Meetings (with OLLI PC User Group)

Osher Lifelong Learning Institute (OLLI)
4210 Roberts Road, Fairfax VA 22032
http://www.patacs.org/fairfaxmeetings.html

General Meeting
3rd Saturday (2/15) 12:30pm

Online-Only Webinar
2nd Wednesday (2/12) 7-9pm
http://www.patacs.org/webinarpat.html