December 2014

Visit our website at www.pcs4me.com — Ken Johnson, Newsletter Editor

CALENDAR

SIG = Special Interest Group

This Week's Schedule:

Merry Christmas,

December 13 - Saturday - 1:00-3:00 PM
General Meeting - Leader: Ray Carlson
Location: Prescott Public Library

Happy Hanukkah,

First Hour: **Credit Card Security**

Happy New Year

Current and upcoming changes to improve security in credit card and online shopping will be reviewed. During the last twenty minutes, those in the audience will be encouraged to ask questions or share insights on any topic.

Second Hour: **Tips and Tricks**

Phil Ball will resume his popular presentations for improving regular computer use.

In addition to the presentations, the following are typical events which take place at our General meetings:

1) We hold an informal Flea Market in which you are encouraged to bring in your excess computer equipment or software and make them available for others to enjoy at no charge. Please deposit give-away items on the table in the back marked "Free Stuff." Any items left here at the end of the meeting are subject to disposal.

2) If you have items that are just too good to give away, you may set up a separate table and hold your own sale.

3) We conduct a raffle of various gift cards at the end of the meeting, so make sure to get a pair of tickets from whoever is in charge and place one on the item you'd like to win.

4) We will also accept your used ink and toner cartridges for recycling. They are turned in to Think4Inc for credits which PCS uses to purchase office supplies from them.

Calendar *Cont on Pg 2*

Future Meetings

December 20 - Saturday- There will be no PCS meeting today.

December 27 - Saturday- There will be no PCS meeting today.

January 3 - Saturday - 1:00-3:00 PM
Digital Photo SIG - Leader: Phil Ball
Location: Prescott Public Library

Many aspects of digital photography will be discussed, including use of digital cameras and using Photo-shop Elements to make your photos look their best.

January 10 - Saturday - 1:00-3:00 PM
General Meeting - Leader: Ray Carlson
Location: Prescott Public Library

To be determined

Note that these dates are correct at time of publication but are subject to change.
Up to date information can be found on our website, www.pcs4me.com
Unless otherwise noted, our meetings are usually held in the
Founder's Suite at the Prescott Public Library.

Prescott Computer Society
Officers & Board of Directors
2013-2014

Officers:		General Directors:	
President	Ray Carlson	Joan Baum	Murray Smolens
Vice Pres	Phil Ball	John Carter	Dick Mason
Secretary	JB Burke	Ken Johnson	
Treasurer	Edi Taylor-Richards		

Welcome to

NEW MEMBERS!

Sandy Moore Nancy Jackson

Bill Lockie Steve & Jo Billington

Need Help With Computers?

Did you know that the Prescott Public Library has a program of Computer mentoring on a one-on-one basis? They have several experienced volunteers who will work with you using one of the Library computers.

All you need to do is make an appointment with either the "Ask a Librarian" personnel or go to: http://www.prescottlibrary.info/.

Two Factor Authentication Proof of Identity

By Phil Sorrentino, Staff Writer, The Computer Club, Inc., Sun City Center, FL
March 2014 issue, The Journal
www.scccomputerclub.org/

When you walk up to a teller in a bank and request information about your bank account, the teller may ask you to authenticate yourself by providing a picture form of identification. But if you have been going to this bank for many years and she is familiar with you, she may just give you the information. In truth, your face and her knowledge of you have provided the necessary authentication for her to respond to your requests. Authentication is much easier in the real world than it is in the software and computer-network world.

Authentication is the act of proving one is really who one says he or she is. In the computer world, we all experience this every time we sign on to one of our accounts or websites. Typically we are asked for a User Name and a Password. The correct User Name and Password combination proves, to the software requesting these items, that we are who we say we are. Of course, we could give our User Name and Password to a friend, something we rarely want to do because then he would be able to authenticate himself as the owner of our account. "Hacking" occurs when someone or some software program attempts to guess your Password after acquiring your User Name: maybe from some public information source. (Remember, User Names are available all over the internet.) This is a form of brute force "hacking" of an account. And unfortunately, there are many other, more sophisticated, ways of hacking into an account.

So, more formally, "Authentication is the act of confirming the truth of an attribute of a datum or entity, which might involve confirming the identity of a person or software program, or ensuring that a product is what it's packaging and labeling claims to be."

In other words, Authentication involves verifying the validity of at least one form of identification. As it turns out, practically, there can be three forms of authentication, called factors. Now, two-factor authentication requires the use of two of the three authentication factors. These factors are:
-Something only the user knows (e.g., password, PIN, pattern);
- Something only the user has (e.g., ATM card, email account, mobile phone); and
- Something only the user is (e.g., biometric characteristic, such as a finger print).
(These factors are so important for authentication that they are identified in government documents in the standards and regulations for access to U.S. Federal Government systems.) Some security procedures now require *three-factor authentication,* which involves possession of a password, and a physical token, used in conjunction with biometric data, such as a fingerprint, or a voiceprint, or a retina scan.

Two-factor authentication is not a new concept. When a bank customer visits a local automated teller machine (ATM), one authentication factor is the physical ATM card that the customer slides into the machine ("something the user has"). The second factor is the PIN the customer enters through the keypad ("something the user knows"). Without the corroborating verification of both of these factors, authentication does not succeed. Another example is when you use your credit card for a gasoline purchase and you have to enter your ZIP code to confirm the charge. You must provide a physical factor (something you own), the card, and a knowledge factor (something you know), the ZIP code. These examples show the basic concept of a two-factor authentication system: the combination of something the user knows and something the user has.

"Something only the user knows" is termed a Knowledge factor and is the most common form of authentication used. In this form, the user is required to prove knowledge of a secret in order to authenticate, typically, a password, PIN, or a Pattern. All of us are familiar with the password which is a secret word or string of characters. This is the most commonly used mechanism for authentication. Many two-factor authentication techniques rely on a password as one factor of authentication. A PIN (personal identification number), is a secret series of numbers and is typically used in ATMs. A Pattern is a sequence of things, like lines connecting the dots on the login screen of a cell phone or tablet.
"Something only the user has" is termed a Possession

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factor. A key to a lock is a good example. With today's computer systems your email account or your phone or a swipe-card is used as a possession factor.

"Something only the user is" is termed an Inheritance factor. Historically, fingerprints, a biometric method, have been used as the most authoritative method of authentication. Other biometric methods such as retinal scans are possible, but have shown themselves to be easily fooled (spoofed) in practice.

Two-factor authentication is sometimes confused with "strong authentication", but these are fundamentally different processes. Soliciting multiple answers to challenge questions may be considered strong authentication, but, unless the process also retrieves "something the user has" or "something the user is", it would not be considered two-factor authentication.

Two-factor authentication seeks to decrease the probability that the requester is presenting false evidence of its identity. The more factors used, the higher the probability that the bearer of the identity evidence is truly that identity. These systems ask for more than just your password. They require both "something you know" (like a password) and "something you have" (like your phone or email account). After you enter your password, you'll get a second code sent to your phone or email, and only after you enter it will you get into your account. It is a lot more secure than a password only, and helps keep unwanted snoopers out of your accounts.

Many well-known systems employ two-factor authentication. Some of these are: Amazon Web Services, Dropbox, Facebook, Google Accounts, Microsoft/Hotmail, Paypal/eBay, Twitter, and Evernote. The two factor authentication will typically be employed when you are using a different computer, or a computer from a different location, when trying to access one of your accounts. Most of these two-factor implementations send you a 6 digit code via a text message for you to input when you receive it. This 6 digit code becomes the second factor to be used with the original password. This definitely adds an extra step to your log-in process, and depending on how the account vendor has implemented it, it can be a minor inconvenience or a major annoyance. (And it also depends on your patience and your willingness to spend the extra time to ensure the higher level of security.) But in the long run the use of a two-factor authentication improves the security of your private information, no doubt something we all want.

Multitasking: the Big Myth

By Diane Fahlbusch, President, ICON PC User Group (ICONPCUG), Long Island, NY
May 2014 issue, ICONPCUG Graphic editor (at) iconpcug.org

Multitasking became the highly touted skill to possess back at the start of the millennium. The business world thought that more work could be accomplished with the same amount of people with this method. However, do we really all mean the same thing when we say it? Can one learn how to multitask? And, the most important question, does multitasking make one more productive? Well these questions have been the focus of numerous studies worldwide spanning over a decade. They have yielded some interesting results.

Multitasking is actually defined as performing more than one task simultaneously. An example of this is holding on a conversation while typing an email to a business associate. According to Earl Miller, a professor of neuroscience at MIT, we just cannot focus on more than one thing at a time. However, many people use the same expression to describe performing one task at a time, and then switching to another one quickly. Working in one program on your computer, and then switching to a different program in another open window is a common example. This is actually called "task switching", but it is often lumped under the category of multitasking.

Another statement is that one must "learn to multitask". This is true to a certain extent – all activities are learned. But "learning to multitask" is the wrong expression. What it really means is learning tasks so well that you do not need to concentrate to perform them properly. Think back to when you were four or five years old and just learning how to tie your shoelaces. You needed to concentrate and could not focus on anything else. But now you probably could NOT tie your shoelaces if you ACTUALLY concentrated on doing it. However, when at least one task requires you to concentrate to accomplish it, multitasking is not necessarily

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happening. One is typically not doing either task well. As an example, most people listen to the radio while driving. But can you actually name the songs that were played, or remember the words? (Even when not attempting to multitask, most people do not pay attention to the lyrics. Think back to when the President Ronald Reagan quoted "Born in the USA" in a patriotic speech, and missed that it was NOT a patriotic song.) The more prevalent example is driving and talking on the cell phone. In spite of the laws that have been passed, people still do it.

But can one improve one's multitasking ability? "According to David Strayer, director of the applied cognition lab at the University of Utah, who studies multitasking in the fertile realm of distracted driving, 'ninety-eight percent of people can't multitask—they don't do either task as well.' … And he found that, sure enough, the very structure of the supertasker brain looks different than those of 98 percent of us. 'These brain regions that differentiate supertaskers from the rest of the population are the same regions that are most different between humans and nonhuman primates,' says Strayer. In other words, the brains of supertaskers are just that much further away from those of apes, 'the leading edge of evolution,' says Strayer. Specifically: 'Certain parts of the frontal cortex are recruited in an interesting way,' says Strayer. In fact, these areas show less activity when multitasking than do the same areas in normal, human, mammalian, non-alien-overlord brains like mine. And it's distinct—you either efficiently recruit this region or you don't. You're either a supertasker or you're not." [1]

So much for learning to multitask! So what about giving task switching a try? Here are some fascinating facts.

"In the brain, multitasking is managed by what are known as mental executive functions. These executive functions control and manage other cognitive processes and determine how, when and in what order certain tasks are performed. According to researchers Meyer, Evans and Rubinstein, there are two stages to the executive control process. The first stage is known as 'goal shifting"' (deciding to do one thing instead of another) and the second is known as 'role activation' (changing from the rules for the previous task to rules for the new task).

Switching between these may only add a time cost of just a few tenths of a second, but this can start to add up when people begin switching back and forth repeatedly. This might not be that big of a deal in some cases, such as when you are folding laundry and watching television at the same time. However, if you are in a situation where safety or productivity are important, such as when you are driving a car in heavy traffic, even small amounts of time can prove critical."[2]

This gives a greater perspective about what one is actually doing. But what about enhancing the ability to task switch? Switching between rote tasks is relatively simple, but when the tasks become more complicated, the results are quite interesting. This finding is pretty much a no-brainer: "Recent research also proves that as we get older the brain is less able to focus on more than one task at a time, and takes longer to switch between tasks."[3] According to the Harvard Business Review from a study conducted by the Institute of Psychiatry, trying to focus on more than one task DECREASES your productivity by 40%, and lowers your IQ 10 points. The study also found that excessive use of technology also reduced workers' intelligence. Other studies have shown that multitasking/taskswitching reduces one's mental abilities TWO TIMES the effect of smoking marijuana, or the equivalent of losing a full night's sleep. It also increases one's stress. And of course the all famous talking on the cellphone while driving, even with a hands free device, decreases reaction time the equivalent of a blood alcohol level of .08%. As a side note, having a conversation with a passenger is only slightly less distracting, as per insurance industry statistics.

But this finding is actually shocking. "In a 2009 study, Stanford researcher Clifford Nass challenged 262 college students to complete experiments that involved switching among tasks, filtering irrelevant information, and using working memory. Nass and his colleagues expected that frequent multitaskers would outperform nonmultitaskers on at least some of these activities. They found the opposite: Chronic multitaskers were abysmal at all three tasks. The scariest part: Only one of the experiments actually involved multitasking, signaling to Nass that even when they focus on a single activity, frequent multitaskers use their brains less effectively."[4]

My mother always said, "Do one thing at a time.

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…Turn the television/radio off and do your homework." She was so right, and ahead of her time. So this adds up to some very harsh realities. Multitasking is a "hardwired" ability for 2% of the population, but a giant myth for 98% of the population. Additionally, tasks requiring the same cognitive ability can NOT be performed simultaneously, such as watching a movie and responding to emails. (Both require visual and linguistic cognition.) Most people are actually task switching. This is fine when the activities are simple tasks that are well learned and do NOT require the same cognitive ability. The more one attempts to task shift, the worse one gets, not to mention damaging to overall mental functioning, perhaps permanently. One final conclusion from multiple studies is that the people who insist that they can multitask are the WORST at it. Does this sound like anyone you know?

[1] "This is Your Brain on Multitasking" by Garth Sundem, February 24, 2012, www.psychologytoday.com

[2] "The Cognitive Costs of Multitasking", by Kendra Cherry, March4, 2014, http://psychology.about.com/od/cognitivepsychology/a/costs-of-multitasking.htm

[3] "Think You're Multitasking? Think Again", by Jon Hamilton, October 2, 2008, www.npr.org

[4] "Don't Multitask: You Brain Will Thank you", by Issie Lapowsky, April 17, 2013, http://business.time.com/2013/04/17/dont-multitask-your-brain-will-thank-you/

Windows Phone 8.0 Update (Almost)

By Ken Johnson, Messenger Newsletter Editor for the Prescott Computer Society

kjohnson244@cableone.net

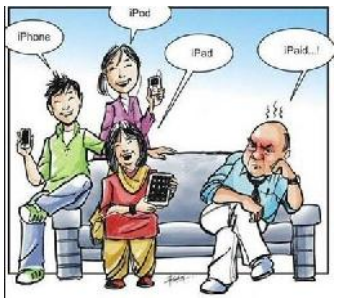
The news is: No news!

I have not yet heard (in the words of our President) a "smidgeon" of information as to when to expect the WinPhone 8.1 update/upgrade for my Samsung ATIV SE (which had been said to happen in October).

I am otherwise pleased with the long battery life, the speedy action, the bright and clear display, integration with OneNote and OneDrive, email functions, texting functions, 13 MP camera ability, the function of the tile main screen, the availability of many useful apps.

I am NOT pleased that I haven't found a great calendar although the 8.1 upgrade promises that, nor that some banks and other companies do not yet offer their apps for WinPhone (I notice that they do not offer them for the Blackberry either, but there is still hope for the WinPhone).

Hopefully 2015 will offer me the 8.1 gift!



CIA - Computer Industry Acronyms

CD-ROM : Consumer Device, Rendered Obsolete in Months

PCMCIA : People Can't Memorize Computer Industry Acronyms

ISDN : It Still Does Nothing

SCSI : System Can't See It

MIPS : Meaningless Indication of Processor Speed

DOS : Defunct Operating System

WINDOWS : Will Install Needless Data On Whole System

OS/2 : Obsolete Soon, Too

PnP : Plug and Pray

APPLE : Arrogance Produces Profit-Losing Entity

IBM : I Blame Microsoft

DEC : Do Expect Cuts

MICROSOFT : Most Intelligent Customers Realize Our Software Only Fools Teenagers

CA : Constant Acquisitions

COBOL : Completely Obsolete Business Oriented Language

LISP : Lots of Insipid and Stupid Parentheses

MACINTOSH : Most Applications Crash; If Not, The Operating System Hangs

AAAAA : American Association Against Acronym Abuse.

WYSIWYMGIYRRLAAGW : What You See Is What You Might Get If You're Really Really Lucky And All Goes Well.