MC³ Newsletter
July 2018

McHenry County Computer Club

Established 1982

MC³

The July meeting of the McHenry County Computer Club is
**July 14, 2018 at Salvation Army Building
290 W. Crystal Lake Ave., in Crystal Lake, IL.**

NOTE: *Enter the building on the parking lot level under the awning.*

Meeting Agenda
- Introductions & Reports
- Installing Linux MX on a 32 bit PC - John Katkus
- Q & A

Upcoming Demos - Subject to Change
August 2018 - APCUG Video
September 2018 - Anniversary Party | Q & A

June's Q & A (yes, I actually have it this month!)

Q: Xfinity WiFi, shows a 'public' access channel in addition to your personal WiFi. How can I close off that public channel?

A: You have to put in your own router(like a Linksys or Netgear) and then have Comcast put your Xfinity router into bypass or transparent mode. That turns off the WiFi on the Xfinity router completely.

We started a free flowing discussion. Starting off with a Cisco VoIP phone. This requires that you have service from a VoIP provider and the phone was missing the power pack. Guess that one goes to recycling.

OOMA – VoIP service uses your existing analogue phones in the home. 2 important points.

1) disconnect your old landline at the 'demarc'. The DC power from OOMA and the phone company will fight each other if you don't.

2) OOMA puts out 24v DC instead of 48vDC that the phone company provides. Marginal quality phones can malfunc-

continued on next page

Our membership is $26.00 a year.

NOTE: This fee offsets the running of the club; membership benefits include help with computer problems. Please pay Lyle Giese, our treasurer, or the designated Board Member in his absence.

MC³ OFFICIALS

President:
Larry Freeman
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Vice President:
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Secretary:
Bruce Ecersberg

Treasurer:
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Newsletter:
info@Mc3ComputerClub.org
(for articles & suggestions)

Past President:
John Katkus

Webmaster:
Cindi Carrigan

Board Members:
Jack Luff, Al Edlund,
Ken Schuring

tion causing all your phones to not work. And if you have a large house, the extensions with the longest wire can also malfunction due to voltage loss in the wire. And if you have too many phones in your house, they can stop ringing.

LED lights. Putting one of them in your garage door unit can cause the remote to malfunction. The LED bulbs use power supplies that can emit RF noise and overload the receiver in the opener.

In the News

BROWSING INCOGNITO - MARY PHILLIPS, THE ICON

Are you tired of your browser keeping track of the sites you visit on the Internet, so it can send you ads in which it thinks you're interested? Every browser I know of has an option for "In Private" browsing. Private browsing ensures that your internet history and activity are removed as soon as you close all private windows. This includes browsing history, Items in cache, items in cache, and cookies.

After being closed, a private tab or window cannot be recovered from the recently closed list in the tab menu.

While private windows do not leave any record of the websites you visit, if you deliberately save data, for example if you save an item to your Speed Dial, save a password or download a file, it will still be visible after the window is closed.

Shortcuts

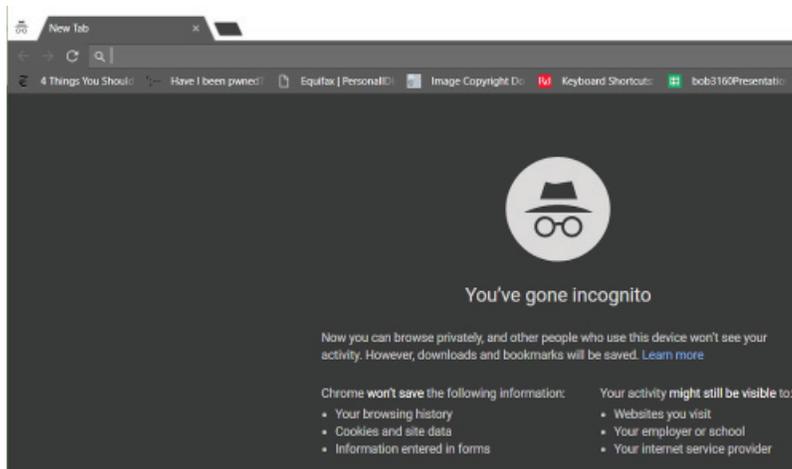Google Chrome - Ctrl-Shift N
MS Edge - Ctrl-Shift-P
Mozilla Firefox - Ctrl-Shift-P
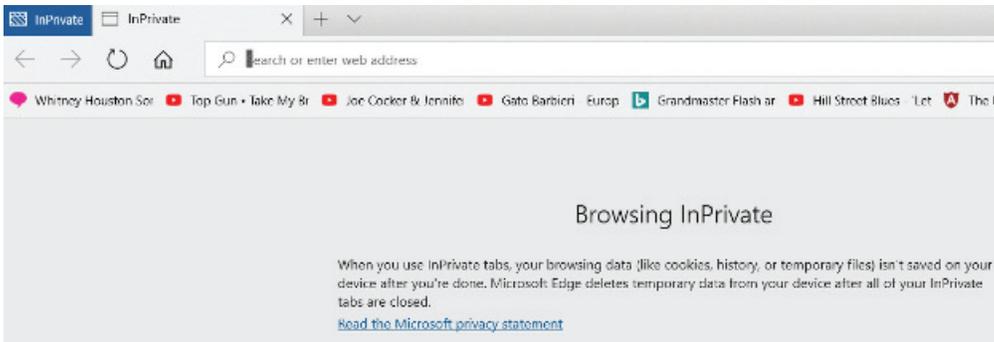Opera - Ctrl-Shift-N
Avast Secure Browser – Ctrl-Shift-N
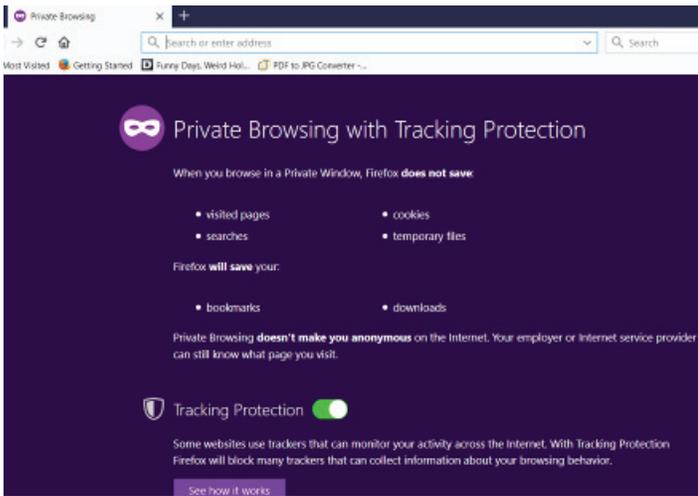Internet Explorer - Ctrl-Shift-P

Chrome – Ctrl-Shift N
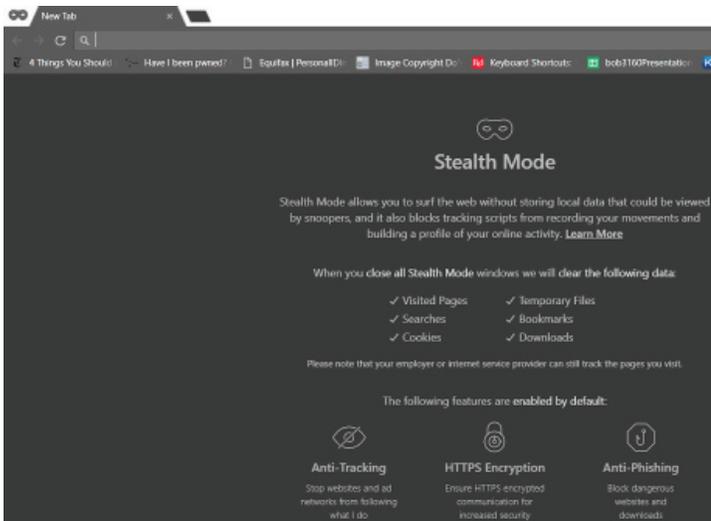
MS Edge - Ctrl-Shift-P

Firefox - Ctrl-Shift-P

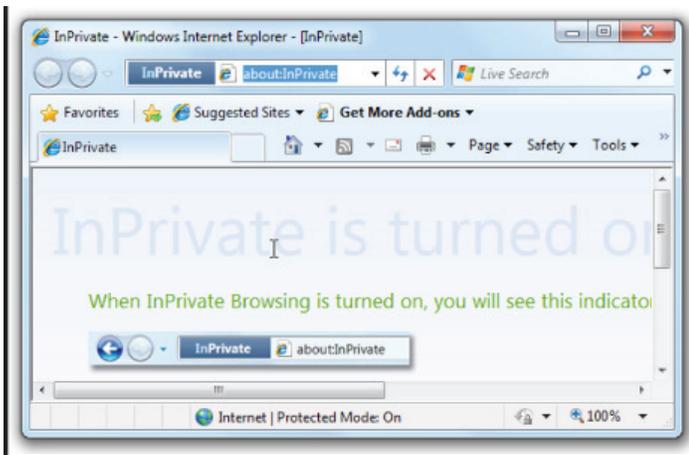## Avast Secure Browser – Ctrl-Shift-N

Opera - Ctrl-Shift-N

Internet Explorer - Ctrl-Shift-P

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I AM NOT A ROBOT - GREG SKALKA, UCHUG

You've seen the wavy, distorted text to translate on log-in pages on the web. You've had to match images to words to be allowed to buy concert tickets. You've even had to check a box that says "I am not a robot" to sign up for a web service. What's going on here? Why must we be inconvenienced? Are robots taking over the world?

The problem is not with robots, at least in the traditional sense. Robots are machines that can perform a complex series of actions, under computer or program control. These include industrial machines, military UAVs (unmanned aerial vehicles) and the Roomba cleaning your floor. Google is not trying to keep C-3PO from signing up for a Gmail account.

A computer running a program could also be considered a kind of robot, as it is a machine performing an action. An ATM machine is a kind of robot, programmed to provide you with cash (if you have money in your account). Programs that catalog the web could be considered robots. These kinds of robotic programs can help us find things. Unfortunately, there are more unsavory applications for these web robots, like spreading spam and capturing user information. If there is a limited amount of something desirable for sale on the web, a program could be written to go out on the web and buy up all of it the instant it goes on sale - concert tickets, for instance. It is not the poor robot program

that is at fault, but the bad people behind its actions.

To prevent these misdirected online bots from buying all the tickets, spamming all the blogs and signing up for all the email addresses, tests were developed to try to filter out the bots and only let real humans sign up on web pages. Initial tests used CAPTCHA codes; CAPTCHA stands for Completely Automated Public Turing test to tell Computers and Humans Apart. These tests involved things that humans should be able to do, like recognize numbers and letters that appear melted, but that are difficult for machines or programs to understand and complete. After going through several different types of these tests to defeat ever-smarter AI (artificial intelligence) web bots, Google has gone to a test where the way you click on a box that indicates "I am not a robot" can reveal your humanity.

This may help protect your opportunity to go to Comic-Con, but it does nothing to stop the proliferation of robots in our society. The capabilities and uses of robotic devices and their programs keep increasing as advancements are made in AI. Robots are just like any other technology we use; they can have benefits and drawbacks.

Like recognizing melted letters, it is commonly thought that there are things that only humans can do. These things usually involve creativity, like writing a novel or painting a masterpiece. Computers may be able to quickly make decisions and complete calculations but lack an aesthetic sense and artistic capability. As processing power, memory capacity and algorithm sophistication all increase, computers will get better at these things as well.

I would have loved to have a robot writer to write my newsletter column this month, as I started on this article way past my normal deadline. There now are news-writing bots that can quickly create basic stories for newspapers and magazines, using AI. While a great tool for journalists, some are concerned it could also be their replacement. Computers and AI are making inroads in other fields, such as law, where they are increasingly used to sift through documents for passages relevant to their casework. Computers are even using AI to claim some of that creativity that humans hold dear; there are programs that claim to create art, compose music and write novels.

Are we ready to accept more robots into our workplaces and our lives? The robots referenced in our popular culture are mostly the same - usually somewhat humanoid in configuration, often good, sometimes evil. Gort from the film The Day the Earth Stood Still, Robby the Robot from the 1956 film Forbidden Planet, the Robot from Lost in Space, the droids C-3PO and R2-D2 from Star Wars and the Terminator robots have all shaped our perception of what a robot is. Yet we now have many robots among us, and few have a humanoid appearance.

AI has helped computers beat humans at their own games. Watson, the IBM computer that competed and won against human contestants on the TV quiz show Jeopardy, is now being used to improve healthcare delivery and weather forecasting, among other things. Deep Blue was an IBM chess-playing computer that beat a reigning world champion human. AlphaGo, a program using Google's DeepMind AI, was able to beat top-ranked human players.

Other robots use AI to navigate, build and answer our questions. Self-driving cars are in development and testing by many companies. If successful and accepted by consumers, they will be a transforming technology in our society. They promise to reduce traffic, free up our time spent traveling, increase road safety and provide transportation for those that cannot drive. They may greatly change our driving-oriented car culture and affect our lives in ways we cannot anticipate. Robotic trucks are also under development, with the goal to make shipping safer and less expensive.

We already have UAVs and drones, many of which can take off, fly and land under computer control. Our robotic space probes have surveyed all the planets and even left the solar system. Our robotic rovers continue to drive around on Mars, helping us explore and learn about our neighboring planet. Back on Earth, robots help us build cars in our factories. Our Roombas sweep and mop our floors. Voice operated assistants like Amazon's Echo and Google's Home Assistant provide support in our lives.

All these robots touch our lives every day in positive ways. Perhaps we should not be so ready to segregate into us and them. Just as John F. Kennedy expressed solidarity with the citizens of West Berlin in his 1963 speech, saying "Ich bin ein Berliner", perhaps we should be saying

49 20 61 6D 61 72 6F 62 6F 74 2E

[Translation from ASCII Hexadecimal: I am a robot.]

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LOCATION – WHERE ARE YOU NOW?

Location, Location, Location has been the real estate mantra for a very long time, indicating how important location is to the value of a property. This reference to location is to a fixed location. The location in question here is that of a mobile communicating device, such as your smartphone, the location of which may be constantly changing, as it would be if you are driving down a major interstate like I-75. Even if you are not flying down an interstate, your location can still be changing as you walk down the street to visit a neighbor. So, with your location possibly changing, how does your smartphone know where you are? And for that matter, how do the Apps on your phone know where you are at any given time?

First, why is your location important, anyway? One reason may be that you are using an App on your smartphone to find the location of the nearest restaurant. The App you are using to locate these restaurants needs to know where you are, so it can calculate the distance from you to the restaurants in its database and give you a list of nearby restaurants, usually ordered by increasing distance away from you. Or, you may want to navigate from one place to another, using directions from a mapping App on your phone (which is similar to how a dedicated GPS device in your car operates). For this kind of navigation, you need a precise location so the App can determine where you are on the map and give you directions to get you to your destination. (Or it may have to give you corrections; you may have heard "recalculating!" if you were using an older GPS device.) The precision is necessary to make sure you are in the right place for upcoming turns or lane changes. As you probably know, the Global Positioning System (GPS) is the only way you can get this kind of precise location. GPS is a space-based radio navigation system owned by the United States government and operated by the United States Air Force. It provides geolocation (geographic coordinates) and time information to a GPS receiver anywhere on the Earth where there is an unobstructed line of sight to four or more GPS satellites. There are 24 satellites in the GPS constellation. GPS, as a government project, was started way back in 1973, and became fully operational in 1995. The US government currently claims 4-meter (approximately 13 feet) accuracy for civilian GPS (but there are many variables involved that might affect this estimate).

Your location, or more precisely, the location of your smartphone, can be determined by one of three ways. GPS, as described above, is the first and the most precise method. It is the only way

to determine location if you intend to navigate using a mapping/navigation App. The second way, which is much less precise, is via the Internet Service Provider (ISP). This is the way location can be determined if you are using Wi-Fi, in your own home or some other Wi-Fi location. (Of course, this location will be fixed; not subject to change.) The ISP knows approximately where you are because it knows where the ends of the cables that carry the internet to you are, and where the Access Points are geographically located, along with the IP addresses that have been assigned. This technique may give a precision of maybe 75 meters (approximately 250 feet) or a few blocks in a relatively pop-ulated area, but this may be all the precision needed to find the nearest restaurant or gas station.

The third way to determine your location is used when you are actively using the cell phone towers. The precision of the measurement of location in this case is only around 600 meters (approximately 1/3 of a mile), but it is accurate enough for normal cell phone system operations. The cell phone sys-tem needs to know your location constantly because it must track your smartphone's transmitter's signal. It needs to know where your phone is, so it can electronically aim its antenna at your phone. Yes, when you are using the cell phone towers, your device's every move is being tracked. Without tracking, the cell phone tower would not be able to keep your device connected when you pass through the tower's area, and it would not know when to hand-off your connection to the next cell tower. (Remember the cell phone system is a collection of contiguous areas, each around a central cell tower, so if you travel down the interstate far enough, you will go out of one cell tower's area and into the next cell tower's area. At this point your connection must be moved to the next cell tower for you to continue your connection without interruption while traveling into the second cell tower area.)

Now that you know the three methods of location determination, you can more easily determine how to set the "Location" setting on your smartphone. As an example, on an Android device (OS 7.0), go to settings and then Location. Here you can set the Mode to "High accuracy", "Battery saving", or "Device only". High accuracy will use all the possible methods, Battery savings will use all but GPS, and Device only will only use GPS (the mode to use when navigating). If you are not navigating, then it is probably a good idea to use the Battery savings mode because the GPS receivers in your de-vice use a lot of power, so it will affect your battery life, but if you need GPS accuracy then use either of the other modes. On an iPhone, you can turn Location Services on at Settings-Privacy-Location Services, and you can individually control which apps and system services have access to Location Services data. Knowledge is power, location is very important.

SITES YOU SHOULD KNOW:

Be a Convert with Your Files
FreeFileConvert provides conversion of files into various formats, supporting 8,337 different con-version combinations of audio, video, image, document, archive, presentation, eBook and font file types. **https://www.freefileconvert.com/**

Where in the World Are You?
This fun clever site drops you somewhere in the world, can you figure out where? The game is called GeoGuesser. How it works is, you select a map from the site and click Play. You will land at a ran-dom location from the map and you must guess where in the world you are.

The game uses Google Maps' images to show you the surrounding area. You can navigate around these images to see people, roads and anything else that can be used to give you clues to your whereabouts. **https://www.geoguessr.com/**