



Our Club

RCSI is a nonprofit 501(c)(3) group open for membership to anyone interested in computers and new technology. Established in 1981, our aim is to provide an exchange of information between users of digital devices. We are not in any way affiliated with any computer manufacturer or software company, and ***we do not sell your data or email address.***

Program Meetings

No admission fee for non-members. *Everyone is welcome!* Second Tuesday of every month, except July and August, from 6:30pm – 8:30pm.

Help's Half Hour (Q & A) 6:30pm – 7:00pm. *Members and Guests are welcome to attend and bring their computer related questions with them to get answered. **Yes, you may bring the problem computer with you.***

7:00 – 7:15, Club Business

7:15 – 8:30+, Main Presentation
Come and join in the fun and enjoy a snack! **You are welcome to bring a guest.**

Become a Member

The club would like to have you as a member, and your subscription will help to keep us going. Go to our website, www.rcsi.org, and download a printed form for use by the Post Office mail, **or** enter your info online and pay with a credit card or PayPal, **or** attend a meeting.

The Rochester Computer Society, Inc. a computer/tech club open to everyone



Vol. 42, No.5 web: www.rcsi.org Rochester, NY May 2023

May 9, 'Smart Speakers, Digital Assistants, AI, and Home Automation', Mark Zinzow

June 13, 'Potluck Video Night', members bring a 5 to 10 minute video to show

**** July and August, summer hiatus - No Meetings ****

In This Issue

Is AI Taking Over the World?	Leo Notenboom
Timeshift Rescue	Cal Esneault
Wi-Fi Hotspot and USB Tether	John Krout
Microsoft Windows in "S Mode"	Paul Baecker
Bits and Pieces in the News	RCSI editor
Scotland to launch the world's first self-driving commuter bus fleet	
Scientists Are Trying to Clone the Extinct Siberian Bison	
Club and Regional News	
Viable superconducting material created in Rochester lab	U of R

Is AI Taking Over the World?

From all the news reports, it might seem a foregone conclusion.

by Leo Notenboom, <https://askleo.com/>
Making Technology Work For Everyone

AI isn't about to enslave humanity -- at least not any time soon -- but it's definitely here and changing the world in both positive and negative ways. No, AI is not taking over. Will it some day? Honestly, there's no way to know. But until then, it's important to understand what AI, or Artificial Intelligence, is and is not, and how it can be used for good as well as evil.



“Your Computer User Group of the Air”, Saturdays from 12:00 pm to 2:00 pm, with Nick Francesco, Dave Enright, and Steve Rae. Broadcasting on JAZZ 90.1 FM (WGMC) from Rochester, NY. Call 966-JAZZ (585-966-5299) or 800-790-0415, www.jazz901.org *Sound Bytes is the longest running computer call-in show in the known universe.*

We have stopped printing the Monitor newsletter. Digital copies can be emailed or obtained from www.rcsi.org or my Pcloud storage at <https://tinyurl.com/tonydel-rcsi> (*this link works in PDF version only*). Also includes presentation slides, **past newsletters dating back to 1996** and articles too large for this newsletter.

Some Past Presentations:

Autonomous Cars and Robots
Open Source and Free Software
Protecting Your Identity
Tablets, the Programs and Uses
Personal Finance Software
Amazing Browser Tips
Linux is Like Cars
Drones and Their Many Uses
Gifts and Gadgets for the Holidays
Cut the Cord, Streaming Services
3D Printing, ENABLE project
Internet Security and Privacy
Features, Mac OS X & Windows
The New Space Race, 2021
Tech of South America

AI world domination?

AI is definitely increasing in capabilities and uses, and while it won't go all Terminator on us anytime soon, it's definitely something important to be aware of and possibly to use in constructive ways. AI doesn't really *think* as we would define thinking, but it does at times present a very good simulation. More important than the technology, though, is how we choose to use or abuse it.

What is AI?

In a [previous article](#), I discussed how AI might be artificial but it's not intelligent. What we are calling AI is just software written by humans plus lots and lots of data. It's more correctly referred to as *machine learning*, but that's not nearly as sexy.

The impressive advancement in recent years is twofold:

- The amount of data on which AI algorithms are based. The sheer quantity of data being used might be impossible for mere mortals like you and I to grasp.
- The ability of the software to work with all that data incredibly quickly. That they can do it in near real time is amazing.

How AI works

The algorithm implemented in the software is often deceptively simple. In [What Is ChatGPT Doing ... and Why Does It Work?](#), Stephan Wolfram wrote a lengthy but readable summary of the technology. It all kinda boils down to a very simple concept: “What's the most likely next word?” repeated over and over.

For example, I might ask ChatGPT, “Does AI think?” It analyzes gazillions upon gazillions¹ of examples of text (hence the terms *large language model* — it's a **large** collection of **language** examples) and decides that for those three words, the next most likely word is... *AI*.

It then iterates. For “Does AI think? AI”, the next most likely word is *does*. For “Does AI think? AI does”, the next most likely word is *not*. And so on. The results are impressive, and becoming more so.

What I find interesting is the amount of randomness intentionally built in. This means you might get different answers for the same prompt from one time to the next. My understanding is that this makes it feel less mechanical and more human — humans are certainly random, after all.

Does AI think?

I went to the source and asked [ChatGPT](#). Here's the response I got.

AI does not “think” in the same way that humans do. AI, including language models like me, are essentially complex algorithms designed to process and manipulate data based on patterns and statistical relationships. AI can solve problems, answer questions, and generate output based on the input it receives, but it does not possess consciousness, self-awareness, or emotions like a human does.

In other words, AI can simulate certain aspects of human intelligence, such as problem-solving, pattern recognition, and language understanding, but it does not actually “think” or experience the world as humans do. AI's capabilities are a

APCUG, An International
Association of Technology and
Computer User Groups

<https://apcug2.org/>

Saturday Safaris
Exploring Technology in Depth
Saturdays:
12 pm – 2 pm EST

<https://apcug2.org/saturday-safaris/>

Tech for Seniors
<https://www.techforsenior.com>

hosted by Ron Brown
and Hewie Poplock
Every Monday from 9-10 AM PT,
(12-1 PM ET)

Broadcast with Zoom
The meeting ID is **526-610-331**
(there is no password) and you'll be
placed in a waiting room and then
admitted.

#

APCUG Website Help
Windows & Android Tips:
<https://apcug2.org/jerestips/>

Apple Tech Tips:
<https://apcug2.org/50-best-mac-tips-tricks-timesavers/>

Penguin Platform (Linux):
<https://apcug2.org/penguin-platform/>

Chromebook Tips And Tricks:
<https://apcug2.org/chromebook-tips-and-tricks/>

result of its training data and the algorithms used to process that data, rather than any form of genuine thought or understanding.

I actually disagree, slightly, with one characterization: “essentially complex algorithms”. I don’t want to minimize the complexity of the implementation, because there’s some amazing work being done to make this stuff useful. But as I described above, the basic algorithm is conceptually simple.

So, it’s a simulation. But will it take over?

Will AI take over the world?

I once again asked the source, ChatGPT.

As an AI, I can’t predict the future, but I can provide you with some perspectives on the matter.

Whether AI will “take over the world” depends on how you interpret the phrase. If you mean AI becoming self-aware and overthrowing human rule, this is an unlikely scenario. Most AI researchers and ethicists are working to ensure that AI systems are designed to be safe, controllable, and beneficial to humanity. The idea of AI taking over in the way often depicted in popular culture is speculative and not grounded in current scientific understanding.

However, if you mean AI becoming increasingly integrated into various aspects of human life and significantly impacting our society, then this is already happening. AI is transforming industries like healthcare, finance, transportation, and entertainment, among others. It is automating tasks, enhancing decision-making, and providing new capabilities that were once thought to be the exclusive domain of humans.

The future of AI will largely depend on how humans develop, regulate, and use these technologies. It’s essential for society to carefully consider the ethical implications and potential consequences of AI’s growing presence in our lives. By doing so, we can harness its potential for good while mitigating potential risks and ensuring that AI remains aligned with human values and interests.

So, no... but yes.

It’s not about the tech

My take is that it’s no longer about the technology. That will, of course, continue to improve, but we’ve reached a point where more important issues have been raised.

What matters more now is how we “puny humans” will use the technology; as ChatGPT said, it depends on “how humans develop, regulate, and use these technologies.”

There are plenty of stories making the headlines of AI-based solutions going off the rails. “Self-driving” cars plow into things they shouldn’t. AI chatbots become more aggressively racist the more they interact with

RCSI Board Members

President:

Mark S. Lawson . . 544-5377
mslawson51@peoplepc.com

Treasurer:

Jerry Seward
jerry@jerryseward.com

Members-At-Large:

Bob Avery 385-4491
Webmaster
webmaster@rcsi.org, 9/23
Jan Rothfuss 347-6020
Membership & Help's Half Hour
jan_rothfuss@hotmail.com, 9/22
Tony Dellelo 734-6149
Programs & Monitor editor
tonydel@techie.com, 9/24

Got Questions?:

Windows: Arpad Kovacs
podcomputer@gmail.com

Linux & some Mac:
Carl Schmidtman
unixgeek@faultline.com

Planning Meeting

Held on 1st Tuesday of each month
at 7 pm, * * ONLINE * *. We will
be using Jitsi Meet. ANY CLUB
MEMBER MAY ATTEND.

Monitor Newsletter

The Monitor is published monthly
by members of RCSI. Articles by
our members may be reprinted by
other user groups or nonprofits,
without special permission. A
courtesy copy may be emailed to
the author or Monitor editor.
Limited copies (probably in black
and white) will be printed and
available at our meetings.

Club Mailing Address

Rochester Computer Society, Inc
PO Box 18516
Rochester, NY 14618

(apparently the wrong kind of) people. AI resum  filters unintentionally reinforce improper stereotypes.

Teenagers and college students are excited at the possibility of ChatGPT-like technology doing their homework for them. (Presumably precipitating further decline in their own writing skills.) I pity the teachers and administrators who now have to ask, "Did an AI write this?" as they try to evaluate their students' work.

And at what point does it even matter if an AI wrote something, if it got the "job" done?

But there are good stories as well. For example, you and I simply aren't capable of pulling information from the gazillions and gazillions of resources out there — something an AI might do in seconds to present solutions we'd never have discovered on our own. Similarly, consider the applications in medicine, where AIs trained in detailed pattern recognition are now diagnosing conditions more accurately and much sooner than their human counterparts.

To implement all of this properly still requires human oversight, since we've also seen that at least the current iteration of AI can be very confidently... wrong.

Do this

Watch this space. The developments in AI are pretty exciting; I'm particularly enamored with the medical diagnostic possibilities. But as always, remain skeptical. Things are not as dire as headlines might lead you to believe, and things are not as wonderful as headlines might lead you to believe.

But things are changing. That much is sure. It has always been thus.

While I used AI for parts of this article, I'm not artificial, at least not yet. Let me prove it to you every week: [Subscribe to Confident Computing!](#) Less frustration and more confidence, solutions, answers, and tips in your inbox every week.

End of Article # #

The **APCUG Wednesday Workshops** (WW) presentations have received high praise from attendees and presenters. Both have enjoyed the Zoom meeting format instead of the VTC Webinar presentations. With the WWs, cameras are an option for everyone. The presenters like seeing the many people attending the workshop and having more time to answer Chatbox questions since more questions can be answered live without a time limit. WWs have either an in-depth two-hour presentation by a single presenter, a panel of presenters, or two presentations with open mic Q&A following the presentations. Everyone likes the biggest feature where the mics are open for general questions, comments, and sometimes socializing. We have people that attend just about every workshop, even from Australia. We've become a Wednesday family. **9 am PT, 10 am MT, 11 am CT, 12 noon ET** Typically, the 2nd and 4th Wednesdays are for Windows or ??? workshops, and the Linux workshop is the 3rd Wednesday of the month.

Tidbits of probably useless information

'Dreamt' is the only English word that ends with **'mt'**. According to Oxford Dictionaries, **'dreamt'** is the only English word that ends with **'mt'**. The word's derivatives including undreamt, daydreamt, and redreamt are the only other words that end with the same letters.

Switzerland is the country that is responsible for the most amount of chocolate consumed per capita. Even though there are certainly countries across the globe that consume more total chocolate than Switzerland, Switzerland consumes the most chocolate per person.

When we're trying to lose weight, it's very much a numbers game of calories eaten versus calories burned. A great asset in the weight loss battle are, so-called, negative calorie foods; these are foods that burn more calories than they contain. A recent study confirmed that **celery** is one of these negative calorie foods. Another good celery trick- use it to dip into a hummus, guacamole or a homemade Greek yogurt dip and swap out the chips.

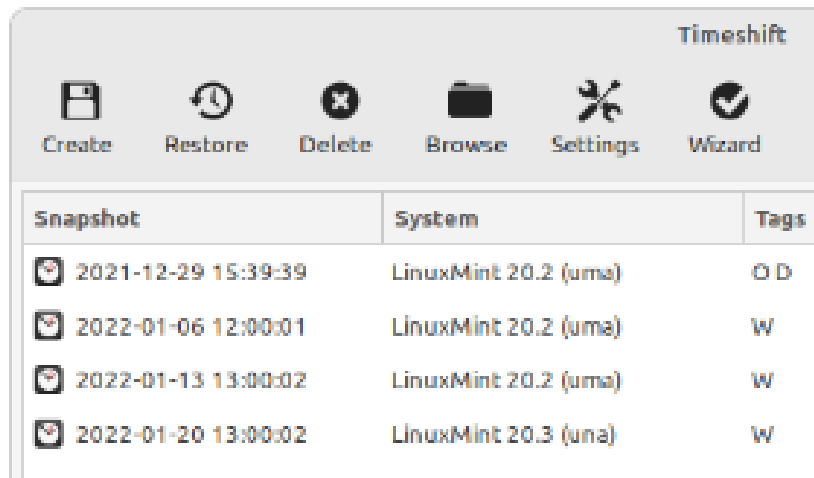
Australia is the only continent without an active volcano. There are two active volcanoes off the continent of Australia but still within Australian territory. They are located on Heard Island and on the McDonald Islands. Australia does not have any active volcanoes because it does not have plate boundaries.

***** SOFTWARE and HARDWARE *****

Timeshift Rescue

By Cal Esneault, Past President
leader of many Open-Source Workshops & SIGs

Any software update involving a PC operating system (OS) has the possibility of causing serious issues. Therefore, Linux Mint added a default OS backup application called "Timeshift." In 2019, Mint started assuming you were using this program so that it could release updates without previous complicated warning messages. After installing Mint 20.3, I set the weekly Timeshift backup schedule with retention of only the latest three images to save disk space. A review of the Timeshift log at the time of an incident is shown below.



Trouble started when I went to the update manager to get the latest updates. I did not get the normal authentication dialog box, and the updates did not respond. I tried to change the repository mirror in case of an issue with the Mint end, but it would not give me the authentication dialog either. Also, clicking the Timeshift icon would not launch the backup program (same issue, not authentication access). Searching the Internet, I tried suggestions to clear the apt-cache, but this did not resolve the problem.

Next, I went to the terminal and launched Timeshift via the command line. Below is a partial response. It listed the correct commands to check my backups and pick one to restore from (see below).

```
cal@cal-Latitude-3450:~$ sudo timeshift I proceeded with the restore
[sudo] password for cal: (choosing the latest) about a week
                           before the issue appeared (see
                           below).

Examples:
timeshift --list
timeshift --restore

cal@cal-Latitude-3450:~$ sudo timeshift --restore
/dev/sda2 is mounted at: /run/timeshift/backup

Select snapshot:
Num  Name                Tags Description
-----
0 > 2021-12-29_15-39-39 O D
1 > 2022-01-06_12-00-01 W
2 > 2022-01-13_13-00-02 W
3 > 2022-01-20_13-00-02 W
Enter snapshot number (a=Abort, p=Previous, n=Next): 3
```

After rebooting, the system was restored, and I could update again without any issues. I guess that some GUI

Windows & Android Tips

Judy Taylour

LOGITECH MOUSE NOT WORKING? 11 FIXES TO TRY

– Logitech is one of the world's most popular computer peripheral makers, and millions of their mice are connected to computers everywhere. So it's no surprise that many people have issues with their Logitech mice from time to time. Usually, these glitches are rare and easy to resolve. Just follow the troubleshooting tips, and you'll be clicking away in no time. [Logitech Mouse Not Working? 11 Fixes to Try](http://helpdeskgeek.com/Logitech-Mouse-Not-Working?11-Fixes-to-Try) (helpdeskgeek.com)

HOW TO DISABLE STARTUP APPS ON WINDOWS 11

– Here are four ways to prevent apps from running automatically on startup on Windows 11. [How to disable startup apps on Windows 11](http://pureinfotech.com/how-to-disable-startup-apps-on-windows-11/) – [Pureinfotech](http://pureinfotech.com)

HOW TO VERIFY THAT A LINK IS SAFE BEFORE YOU CLICK ON IT

– As you probably know, the Internet is home to a lot of scammy and fraudulent websites. While there is no 100% fool-proof method for detecting every single dangerous website you might encounter, there's a very easy way to find out with a high degree of certainty whether a given page is safe to visit. Here's a little reminder for you...[How to verify that a link is safe before you click on it](http://ricksdailytips.com/how-to-verify-that-a-link-is-safe-before-you-click-on-it/) (ricksdailytips.com)

quirk had occurred. This was the first time I had to use Timeshift for a real problem. Although previously skeptical, I am now a true believer. This is a program every Linux Mint or Ubuntu user should activate.

Note that Timeshift enables the user to split the OS backup with installed applications separately from user files (for example, data stored in the /home directory; I routinely back up data files using a different method). The alternative to this dual approach is to make a “mirror” image of the entire disk. I find the dual approach a more straightforward and faster method.

Reprinted from the Cajun Clickers Computer Club,
<https://www.clickers.org/>, cpesne@bellsouth.net.



Wi-Fi Hotspot and USB Tether

By John Krout

Presenter and Newsletter Contributor

If you use a smartphone Wi-Fi hotspot to provide an Internet connection to a single computer, the tether option may provide advantages.

Introduction

Many environments do not provide either reliable Wi-Fi or high-speed Wi-Fi. In those environments, some find that the only way to provide Internet access for a computer is to enable a smartphone to provide a Wi-Fi hotspot.

From the viewpoint of the computer user, that hotspot is just like any Wi-Fi service. The hotspot shows up in the computer's list of available Wi-Fi services. Connection to the hotspot usually requires a password; you can find that password on the smartphone's screen.

Any Wi-Fi hotspot does face issues affecting its performance. **First**, the Wi-Fi hotspot drains the smartphone battery at an increased rate, more rapidly than when the smartphone hotspot is disabled. **Second**, the smartphone's Wi-Fi hotspot offers no competition for a Wi-Fi router. A router typically has two or more antennae and supplies much greater Wi-Fi signal power than a smartphone Wi-Fi hotspot.

Since a smartphone's Wi-Fi signal is weaker than a router's signal, the distance between the smartphone hotspot and the computer is critical. Put the phone as close as possible to the computer. Move the smartphone

Scams

Scammers are like viruses: They continually evolve in response to the latest news and trends, using them for new ways to separate us from our cash.

These criminals “are so adaptable, they’re going to just follow the headlines,” says Amy Nofziger, director of fraud victim support for AARP.

One-time password (OTP) bot scam. Credit reporting company Experian warns that scammers utilize bots — automated programs — to deceive people into sharing the two-factor authentication codes sent to them via text or email from financial institutions (or from companies such as Amazon). The bot will make a robocall or send a text that appears to come from a bank, asking you to authorize a charge, then it asks you to enter the authentication code you’ve just been sent if the transaction isn’t yours. It’s actually the bot that’s trying to log into your bank account, and it wants the code that the bank sent to you as a precaution, so it can get in.

Puppy purchase scam. Scammers try to exploit dog lovers by offering cute puppies for sale on the web. In one instance documented by the BBB, a woman paid \$850 for a Dalmatian puppy, only to receive additional requests for money — first \$725 for travel insurance for the dog, then \$615 for a special crate. In the end, the buyer lost \$2,200 and never got the puppy — [which didn’t actually exist](#).

a bit farther away, and the speed of the Wi-Fi connection available to the computer declines.

Third, due to the weak Wi-Fi signal from a smartphone, the Wi-Fi signal strength and, therefore, the Internet speeds may vary because of intermittent nearby interference beyond anyone’s control. In short, tether options overcome those three issues. If your smartphone already enables you to create a Wi-Fi Hotspot, then your smartphone likely provides one or more options to use a tether.

Bluetooth tether

Both recent iPhones and recent Android phones also include Bluetooth tethering capability. However, since Bluetooth involves no cable, the capability is better described as a Bluetooth hotspot.

Again, like Wi-Fi hotspots, your carrier contract may or may not allow your use of Bluetooth tethering. Also, like Wi-Fi hotspots, Bluetooth has disadvantages. For example, Bluetooth usage accelerates smartphone battery drainage. Also, Bluetooth range for useful Internet data rates is quite limited and degrades over distance.

USB Tether advantages

USB tether simply means that the smartphone provides internet service to the computer through a USB cable. The Windows 10 and 11 operating systems automatically recognize that the USB tether provides an Internet connection.

The USB cable connection provides power from the computer to the smartphone, reducing battery drainage. In addition, USB cable communication requires less power than Wi-Fi or Bluetooth, reducing battery drainage.

How to enable an Android phone's USB Tether

First, attach the smartphone to a USB cable, then connect that USB cable to a USB-A socket on a computer. Most recent smartphones support USB3, so plug that cable into a USB3 socket on the computer. After that, you use Settings on your smartphone to enable the USB Tether behavior.

Here I will show you how to enable USB Tethering behavior on my Samsung Galaxy S10 smartphone running Android 12. The main Settings app screen, shown in **illustration 1**, is the place to start. Then, on that screen, tap **Connections**, which is circled in the illustration.

Illustration 1

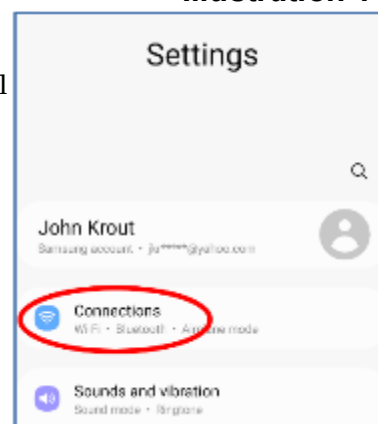
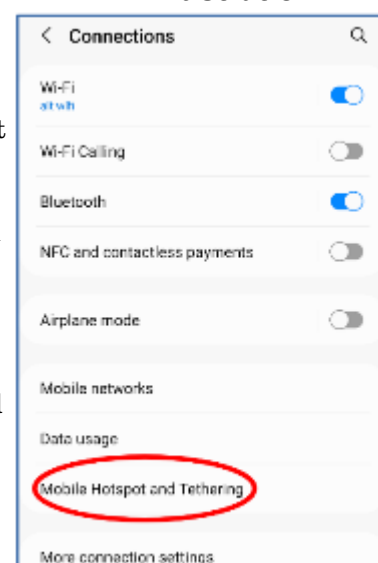


Illustration 2



Virtual Tours

Drakensberg Mountains, South Africa

Not only is the Drakensberg Mountains a UNESCO Natural World Heritage Site, it's also a UNESCO Cultural World Heritage Site. Drakensberg is culturally significant because it hides more than 20,000 San rock paintings inside its nooks and crevices.

These rock paintings are important because they represent the earliest form of human creativity. They also symbolise the beginning of art in the world today.

We've had the privilege of hiking the Drakensberg Mountains when we lived in South Africa. If you plan to hike it too, make sure you read our top [Drakensberg hiking trails of the Royal Natal National Park](#). We also share tips on how you can [hike the Drakensberg with children](#).

Since that's not possible right now, you can enjoy the magnificence of the [Drakensberg](#) on this beautiful virtual tour.

Bagan, Myanmar

Bagan is known as the 'sea of temples' because it has the largest concentration of Buddhist temples in the world. There were originally 10,000 Buddhist temples, pagodas and monasteries built here in the 1000s and 1100s. But only 2,000 of them still exist today.

Needless to say that the entire Bagan Archaeological zone is too vast to explore by foot alone. You can complement your walk with a ride on old rickety bicycles, hot balloon rides or on this mind blowing virtual tour of [Bagan](#).

In **illustration 2**, you can see the Connections screen. On that screen, tap **Mobile Hotspot and Tethering** is circled in the illustration.

In **Illustration 3**, you can see the Mobile Hotspot and Tethering screen. As shown, the USB Tethering switch is disabled. However, if a USB cable connects your smartphone and the computer, that USB Tethering switch will be enabled, like the Mobile Hotspot switch in the illustration.

After connecting the USB cable to the smartphone and the computer, tap the enabled USB Tethering switch to turn it on.

When you do so, the computer should recognize the available Internet connection via the connected USB cable within a few seconds.

How to enable an iPhone's USB Tether

On my iPhone X, the equivalent Settings screen sequence to turn on a hotspot are **Settings→Cellular→Personal Hotspot**. Unfortunately, my iPhone is not currently on a carrier contract. Therefore, Cellular is ghosted (disabled) in Settings, so I cannot enable and test an iPhone personal hotspot.

The iPhone user's manual ebook on my iPhone does not document a USB tether capability. However, USB tether documentation on this iPhone support web page seems to indicate that a USB tether connecting an iPhone running iOS 15 to a computer can be accomplished without turning on any Settings switch: support.apple.com/en-us/HT204023

Ethernet tether

You might think: my smartphone cannot connect to an Ethernet cable! On the contrary, perhaps it can, but you must spend some money to make it happen.

As you can see in illustration 3, my Samsung Galaxy S10 phone supports an Ethernet tether. To use that Ethernet tether, a smartphone must support On-The-Go (OTG) capability. The existence of that Settings Ethernet Tether switch may indicate that OTG is, in fact, supported. I happen to know by testing my S10 phone that the phone does support OTG. To use OTG with Ethernet, you must obtain a 3-way OTG adapter and a USB-to-Ethernet adapter. With the OTG connected to the phone to power, the USB side of the USB to Ethernet adapter, and an Ethernet cable connected to the Ethernet adapter and to a computer, the Ethernet Tether switch will be enabled.

Most of us already have the USB cable for a USB tether, so the USB Tether method is essentially more straightforward and cost-free than Ethernet Tether. Therefore, I suspect that the USB Tether method will be preferable for all readers of this article.

Illustration 3



Interesting Internet Finds

by Steve Costello
scostello@sefcug.com

Does Your Internet Provider Know That You're Using A VPN?

<https://www.reviewgeek.com/12229/does-your-internet-provider-know-that-youre-using-a-vpn/>

If you use a VPN to obscure your identity, this is a good post to read.

How To Legally Download A Windows Virtual Machine

<https://www.maketecheasier.com/legally-download-windows-virtual-machine/>

If you want to check out the Windows operating system, this post is for you. In this post, you find out how and where to download a legal Windows virtual machine and how to secure it for use.

If I Leave My Computer Always On, Am I More Likely To Be Hacked?

<https://askleo.com/if-i-leave-my-computer-always-on-am-i-more-likely-to-be-hacked/>

I hear this question all the time myself. Leo Notenboom explains the pros and cons. Also, Leo explains how to make sure it is the least likely to be hacked.

How To Create A USB Image To Back Up Your Data

<https://www.maketecheasier.com/create-usb-image-data-backup/>

This is a little bit more advanced than what I usually post. I use this process frequently enough that it has become a habit.

Final Notes

A smartphone hotspot or tether will **never be any faster than the available speed provided by the nearest cell tower**. The very nature of cell towers means that factors beyond the control of any one person will cause the download and upload speed to vary. I have measured the 4G download speed from the cell tower about two blocks away from my suburban home a few times. The speed has been as high as 12 megabits per second and as low as 1.8 megabits per second.

Carrier companies claim that 5G will improve the speeds, but there are still caveats: 5G runs at a rate greater than 4G only if you are close to a 5G-compatible cell tower. Also, for maximum speed, the cell tower must not be overloaded. Unfortunately, that condition is beyond the control of anyone other than the carrier company. Nevertheless, carrier companies are marketing 5G hotspots to businesses to use as an alternative to wired Internet connections. If that marketing succeeds, then 5G-compatible cell tower overloading may become the new 5G normal in cell towers serving residential and commercial customers.

From the Potomac Area Technology and Computer Society,
www.patacs.org.

Microsoft Windows in "S Mode"

News and/or Opinion from the SHCC Editor
By Paul Baecker

Someone recently asked me for my opinion on a sale-priced laptop at a local store and whether I'd recommend its purchase.

An HP laptop with an Intel i5 CPU with a Passmark rating of 691, 8GB of RAM, 256GB SSD, 17" screen, Windows 11, backlit keyboard, and full HD display. All in all, a decently powered mobile PC on sale for only \$399, advertised as "\$300 off their regular price."

What could be wrong with this selection?

Windows 11, that's what could be 'wrong' with this selection. However, looking closely at the specifications of this offering indicated that the version of Windows 11 that came installed on this laptop was "Windows 11 Home in S Mode."

I had never heard of "S Mode," so this would be a new education for me. "S Mode" (Windows 10 or 11) basically limits you to accepting applications only from Microsoft. However, they say that "S mode" is designed for security and performance, exclusively running apps from the Microsoft Store. So if you want to install an app that isn't available in the Microsoft Store, you'll need to switch out of "S mode".

But this laptop isn't such a bad purchase after all (if you are on a budget and accept the small drive size and the middle-of-the-road Passmark CPU score) because you can "leave" Windows "S Mode" at any time. This will result in your new PC having the full Windows Home edition. The only caveat is that you cannot reverse this decision. But I suspect that for most PC users, this would be the right permanent direction to go anyway.

*** * Jokes & Quotes Stolen
from Everywhere * ***

CHOCOLATE CHIP COOKIES

An elderly man lay dying in his bed. In death's agony, he suddenly smelled the aroma of his favorite chocolate chip cookies wafting up the stairs. He gathered his remaining strength and lifted himself from the bed. Leaning against the wall, he slowly made his way out of the bedroom, and with even greater effort forced himself down the stairs, gripping the railing with both hands. With labored breath, he leaned against the door-frame, gazing into the kitchen.

Were it not for death's agony, he would have thought himself already in heaven: there, spread out upon racks on the kitchen table and counters were hundreds of his favorite chocolate chip cookies.

Was it heaven? Or was it one final act of heroic love from his devoted wife, seeing to it that he left this world a happy man? Mustering one great final effort, he threw himself toward the table, landing on his knees in a rumped posture. His parched lips parted — the wondrous taste of the cookie was already in his mouth, seemingly bringing him back to life.

"Stay out of those," she said.
"They're for the funeral."

See below links to review articles about Windows "S Mode" (for Windows 10 and 11) — what it is and how to leave it.

When shopping for a new PC, always study the specifications sheet for each of your purchase candidates so that you don't encounter unexpected surprises after your eventual choice. But be aware that the specifications list for a PC on any particular store's website may not be complete, and some of the spec info listed there may also be inaccurate (which happens too often!), so double-check the information about your potential purchase, perhaps on the PC manufacturer's web site.

Also, purchase from a retailer that offers a return policy without any restocking fee. In my opinion, if you can't test-drive your selection in the store, you should be able to do so at home and return it at no charge if it doesn't meet your expectations. (Be sure to delete all your files and footprints before returning the device! Maybe even re-install the Operating System on it to accomplish that entirely.) Most retailers offer a free 14-day return policy. Costco offers a very generous 90-day return policy (as well as great sale prices on equipment).

Switching out of Windows "S Mode" results in a full Windows Home edition and cannot be reversed.

https://support.microsoft.com/en-us/windows/switching-out-of-s-mode-in-windows-4f56d9be-99ec-6983-119f031bfb28a307#WindowsVersion=Windows_11

Some low-cost Windows PCs and tablets ship with Windows 11 Home in "S Mode". Here is the process for switching out of "S Mode".

<https://www.pcworld.com/article/545076/how-to-switch-out-of-windows-11-in-s-mode.html>

Reprinted from the September 2022 WYSIWYG issue,

<http://www.SterlingHeightsComputerClub.org>,
Newsletter@sterlingheightscomputerclub.org.

*** * * * * BITS and PIECES in the NEWS * * * * ***

Editor's Note: To continue reading the following articles, you may copy the long URL at the end of the article and enter it into a web browser or click on the URL in the PDF or web versions of this newsletter.

Scotland to launch the world's first self-driving commuter bus fleet

Five single-decker buses will be in service, carrying approximately 10,000 passengers weekly.

Can Emir, Created: Apr 06, 2023 10:03 AM EST

The world's first fleet of self-driving commuter buses is set to enter service in Scotland next month. This comes after at least one successful trial run in January, as well as financial support from the UK government.

Stagecoach's self-driving vehicles will begin service on a 14-mile (22.5 km) circuit that includes Edinburgh's famous [Forth Road](#) suspension bridge on May 15.

Odds and Ends

Processing Data at the Speed of Light - "Nano-Excitonic Transistor"

What allows Ant-Man, a character in the Marvel movies, to generate such formidable energy out of his small body? The answer can be found in the transistors on his suit, which enhance weak signals for processing. Traditional transistors that amplify electrical signals often result in heat energy loss and slow down signal transfer, compromising performance. However, what if it were possible to create a high-performing suit that is both lightweight and compact without sacrificing heat energy?

A team of researchers from [POSTECH](#), led by Professor Kyoung-Duck Park and Yeonjeong Koo from the Department of Physics, along with a team from ITMO University in Russia under the guidance of Professor Vasily Kravtsov, have collaborated to develop a "nano-excitonic transistor." This innovative device utilizes intralayer and interlayer excitons in heterostructure-based semiconductors, addressing the limitations present in traditional transistors.

"Excitons" are responsible for light emission of semiconductor materials and are key to developing a next-generation light-emitting element with less heat generation and a light source for quantum information technology due to the free conversion between light and material in their electrically neutral states.

Continue article at <https://scitechdaily.com/processing-data-at-the-speed-of-light-nano-excitonic-transistor/>



[Stagecoach](#) said that their autonomous buses will move at a top speed of 50mph (80 kph) through pre-selected highways and bus lanes while navigating traffic lights and roundabouts. Although no human drivers are required for each bus, two staff members will remain on board at all times—one in the driver's seat to oversee piloting systems and another to assist passengers, accept tickets, and assist as needed.

Read more at <https://interestingengineering.com/transportation/scotland-launch-worlds-first-self-driving-commuter-bus-fleet>.

Scientists Are Trying to Clone the Extinct Siberian Bison

A bison carcass preserved in Russian permafrost might help researchers resurrect the species—if its DNA is still intact.

By [Adrianna Nine](#)

When a group of locals in the Verkhoyansk District of Russia's Sakha Republic stumbled upon part of an 8,000-year-old Siberian bison carcass last year, it was like winning the lottery: The extinct animal's head, forelimbs, and chest were well-preserved in the Arctic Circle's permafrost. Now scientists at Russia's North-Eastern Federal University (NEFU) are capitalizing on that find by attempting to resurrect the species via cloning.

After taking microbiological, histological, and radiocarbon samples from the carcass, NEFU partnered with researchers at the UAE Biotechnology Research Foundation in Abu Dhabi to extract the bison's DNA. They hope that samples from the animal's brain, muscles, skin, and wool will contain enough genetic information to facilitate the cloning process, which would entail transferring Siberian bison DNA into an "empty" egg and implanting the egg into a surrogate.

For those of you who feel like you've seen this film before, it's because you have: It's roughly the same technique *Jurassic Park*'s fictional scientists used to resurrect dinosaurs.

Reported on <https://www.extremetech.com/science/scientists-are-trying-to-clone-the-extinct-siberian-bison>.

Club and Regional News

Viable superconducting material created in Rochester lab

March 8, 2023

In a historic achievement, [University of Rochester](#) researchers have created a superconducting material at both a temperature and pressure low enough for practical applications.

“With this material, the dawn of ambient superconductivity and applied technologies has arrived,” according to a team led by [Ranga Dias](#), an assistant professor of mechanical engineering and of physics. In a [paper in Nature](#), the researchers describe a nitrogen-doped lutetium hydride (NDLH) that exhibits superconductivity at 69 degrees Fahrenheit and 10 kilobars (145,000 pounds per square inch, or psi) of pressure. Although 145,000 psi might still seem extraordinarily high (pressure at sea level is about 15 psi), strain engineering techniques routinely used in chip manufacturing, for example, incorporate materials held together by internal chemical pressures that are even higher.

Scientists have been pursuing this breakthrough in condensed matter physics for more than a century. Superconducting materials have two key properties: electrical resistance vanishes, and the magnetic fields that are expelled pass around the superconducting material. Such materials could enable:

- Power grids that transmit electricity without the loss of up to 200 million megawatt hours (MWh) of the energy that now occurs due to resistance in the wires
- Frictionless, levitating high-speed trains
- More affordable medical imaging and scanning techniques such as MRI and magnetocardiography
- Faster, more efficient electronics for digital logic and memory device technology
- [Tokamak machines](#) that use magnetic fields to confine plasmas to achieve fusion as a source of unlimited power.

“Our hope is to make upstate New York the hub for superconducting technology,” Dias says.

Check it out at <https://www.rochester.edu/newscenter/highest-temperature-superconducting-materials-metals-reddmatter-551382/>.

RCSI

The club is having it's second 'Pot Luck' video night. Just like pot luck dinners, where everyone brings a dish to pass around, each member can bring a 5 to 10 minute video to show. You do not need to explain the video, but just show something that interests you. *The video does not need to be technology or computer related.*

Got Questions?:

Send an email to either person below and they will get back to you. The questions can be related to the OS (Operating System) or hardware related issues. Please give them time for a response, as they do this service on a volunteer basis. Thank you.

Windows OS: Arpad Kovacs, podcomputer@gmail.com

Linux & some Mac: Carl Schmidtman, unixgeek@faultline.com

Our Usual Meeting Place is being renovated.

St John's Meadows at Johnsarbor Drive, is on the left, past Clinton Avenue, when going West on Elmwood Avenue. The opening in the white fence is Johnsarbor Drive. At the 'T', turn right. The meeting is in the **SECOND** building on the left – **Chestnut Court.**

Our meeting place can change. Please check our website before each meeting. **www.rcsi.org**