



Midland Michigan

# BITS AND BYTES

FEBRUARY 2023

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

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**GENERAL CLUB MEETING - VIA ZOOM**

**Wednesday, February 22, 2023**

**6:00 P.M.**

## Right-Click Your Mouse, Best Shortcut Ever!

By Jim Cerny, Forums Coordinator, and Class Instructor  
<https://thestug.org/> - jimcerny123 (at )gmail.com

If you are not familiar with the power of RIGHT-clicking your mouse, you are in for a great Windows tip to help you in almost every place on your computer. First, of course, everyone should be familiar with LEFT-clicking the mouse to select things and options. Computer instructions say "click on" this or that, and it is understood that they mean LEFT click. But the RIGHT mouse button is a big help also, and instructions should always specify "RIGHT-click" when you are to use that button.

So, what does "right-clicking" your mouse do on Windows? Well -- and this is the core of this article -- **right-clicking your mouse on anything makes a menu of options appear for that item.** This works for almost anything you can see on your Windows monitor. So, let's look at a few examples for you to try to show you what a helpful shortcut this can be for you.

Place your mouse arrow (cursor) anywhere on your desktop screen (on an empty area, not an icon). Now right-click your mouse, and you will see a menu appear of choices or commands for what you can do with your desktop. For example, you will see choices such as "View," which allows you to change how you view your desktop. Or "Sort by," which gives you options for sorting what is on your desktop. If you don't know what a command or option does, ask Google.

For another example, place your mouse arrow on a BLANK area on your Taskbar at the bottom of your Windows desktop screen. Now right-click, and you will see options of what you can do with your Taskbar – such as locking or unlocking the Taskbar, arranging open windows on your screen, and more. You can even LEFT click on "Taskbar settings" to go directly to the Taskbar settings options. So have fun and TRY something! (Remember always to use a LEFT mouse click to select a menu option).

For a third example, let's say you are editing text in a document. First, drag your mouse over some text to highlight it (this is "selecting" the text you want to work with). Now right-click on the highlighted text, and viola, you see options of what you can do with that text. You can select "cut," "copy," or "paste," for example, or change the font or make it a new paragraph.

If you have not realized the power of right-clicking your mouse, then you should be saying a big "WOW, this is so cool!" Now you can have some fun trying right-clicks anywhere and everywhere. Try right-clicking on an icon, a cell in a spreadsheet, a file or folder name in File Explorer, or a photo on the internet. You do not have to select an option on the menu that appears; left click somewhere else, and the menu will disappear, and nothing will happen. So, you won't change a thing when you look and explore. Right-clicking is a great shortcut that will save you time searching for many options or choices. Most apps (applications, programs, etc.) will also provide right-click menus. So why not give it a try? You have nothing to lose but a click!



## Scam Phone Calls Don't Have to Drive You Crazy

By Kurt Jefferson, Editor, Central Kentucky Computer Society  
<https://ckcs.org/> - [lextown2 \(at\) gmail.com](mailto:lextown2@gmail.com)

Years from now, when future generations look back on this era, they'll probably shake their heads and wonder about all the bothersome phone calls many of us receive and wonder why we put up with this nonsense.

While there is no silver bullet, you can block most of these calls by using software designed to block annoying robocalls, telemarketers, and phone scams.

You install the software on your iPhone or Android phone.

If you use a landline phone that receives calls using the Internet (called VoIP), many of these same products offer websites where you can tell your Internet provider to block unwanted calls.

The tech site, Mashable, lists seven of what it calls "The best robocall blocking apps and tools for avoiding phone spam." In other words, "Your jig is up, unknown caller!"

Here are Mashable's Top 7 Picks:

Best Free App: [Hiya](#) – Caller ID & Spam Blocker

Best Paid App: [Nomorobo](#) Robocall Blocking

Best For Getting Revenge on Scammers: [RoboKiller](#) – Spam Call Blocker

Best For Businesses: [YouMail](#) Voicemail and Spam Block

Best For Landlines: [Call Control Home](#)

Best For Number Lookups: [Truecaller](#)

Best For Unmasking Calls: [TrapCall](#) – Reveal No Caller ID

The Mashable writer begins, "If there's one thing people with iPhones and Android phones can agree on, it's this: Robocalls suck. Although, personally speaking, robots call me more than my mother does..."

"At present, robocalls are the No. 1 source of consumer complaints to the FCC, making up 60% of all filings... Anyone can run a phone scan nowadays; one Florida man managed to place 96 million robocalls all by himself over three months in 2016 before the government cracked down on his shenanigans," add Mashable.

What I find scary is that in 2020 one in six Americans fell prey to scams, up from one in ten in 2017. The call-blocking company, Truecaller, discovered that each victim reported an average loss of \$244.

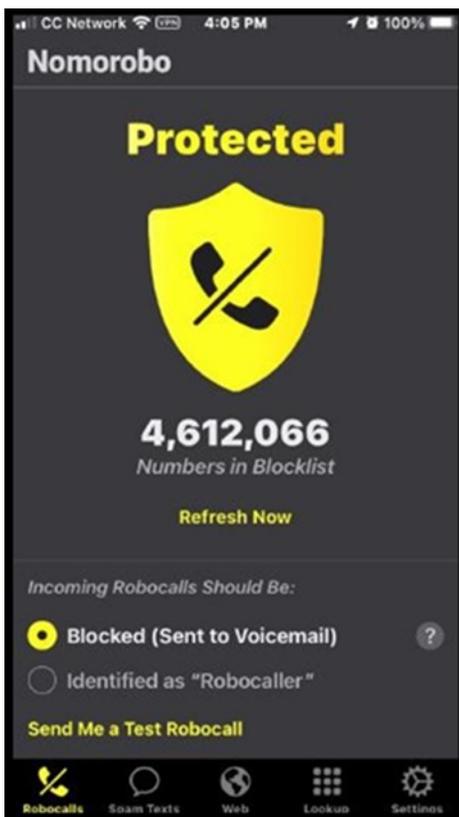
Ouch. "Installing a third-party robocall blocking app remains one of the best and most reliable ways to prevent robocallers, telemarketers, and even pesky political campaigns from reaching

you on your smartphone. (Be sure to do your due diligence and pore over its privacy policy first, so you know exactly what you're signing up for.)" writes Mashable.

A couple of CKCS members asked me what I use, and I mentioned Nomorobo. I use it on my iPhone and Ooma, the landline phone service at home (that's what CKCS uses at the office.)

Nomorobo got its start in 2012 when the Federal Trade Commission put out a challenge. What became Nomorobo tied for the best overall solution, winning a \$25,000 prize. You can download the smartphone app from the various app stores (\$1.99 per month, per device) or register for the landline service (free) from the Nomorobo website. Scroll down, and you'll see Landlines and Mobile displayed at the bottom of the page.

As I type this on a rainy Monday afternoon in late October, Nomorobo is currently blocking more than 4.6 million scam phone calls. I got two scam phone calls this morning while walking in a park near my home. Nomorobo did its job – silencing both calls, so they never bothered me, and one went directly to voicemail trying to sell me an extended car warranty (one of the most pervasive and hated robocalls.)



The Nomorobo app as it appears on my iPhone in late October 2021. If I get a possible scam call that is not in Nomorobo's database, I have the option of sending the phone number through the app to the Nomorobo staff to confirm it's bogus and add it to the giant database.

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## The Sunk Cost Fallacy

By David Kretchmar, Hardware Technician

Sun City Summerlin Computer Club - <https://www.scscclb.com> - dkretch (at) gmail.com

In 2017, Richard Thaler, a professor at the University of Chicago, was awarded the Nobel Prize in Economic Sciences for his contributions to behavioral economics.



One of Thaler's main themes is that market-based economic models are incomplete; he is quoted as saying, "conventional economics assumes that people are highly-rational —super-rational— and unemotional; they can calculate like a computer and have no self-control problems. But, in reality, we all are susceptible to a wide array of routine biases that can lead to an equally wide array of embarrassing blunders in education, personal finance, health care, mortgages and credit cards, happiness, and even the planet itself."

**One of the biggest factors that cause humans to make irrational decisions is known as the Sunk Cost Fallacy.**

credit cards, happiness, and even the planet itself."

A **sunk cost** is any cost that has already been paid and cannot be recovered. The sunk cost fallacy reasoning states that further investments or commitments are justified because the invested resources will be lost otherwise. Therefore, the sunk cost fallacy is a mistake in reasoning in which the sunk costs of an activity are considered when deciding whether to continue with the activity. This is also known as "throwing good money after bad."

The sunk cost mistake is often made for the worst possible reasons. People hate to admit that they have made a mistake and will go to great lengths to avoid that admission, even when they have ample evidence that not admitting a mistake will lead to even more significant losses. Politicians highly paid corporation executives, and others in the public eye do not like to admit they made poor decisions.

### The Concord Fallacy



The Concorde fallacy has routinely been cited as a perfect example of the sunk cost fallacy. The Concorde fallacy refers to both the British and French governments continued funding of the project even as they knew there was no economic case for the aircraft. They knew it was a commercial and environmental disaster, but political decisions made it impossible for either government to pull out.

I don't feel this example is cut and dried because of other factors such as possible harm to Anglo-French relations, the loss of tens of thousands of jobs when the world's economy was weak, and consideration of "national pride." What appears to be a perfect example of the sunken cost fallacy today, in retrospect, looked very different in 1972.

### Other Examples

On a much smaller personal scale, have you ever over-eaten at a buffet, even if the food was not very good, because you had already paid for "all you can eat"? Have you seen someone refuse to quit a slot machine because of all of the money they had already "invested" in it? Have you held on to an investment for much longer than you originally intended because you were

reluctant to sell at a loss? All are examples of sunk costs and the false belief that non-recoverable expenditures have some value, leading to poor decisions.

### The Old Computer

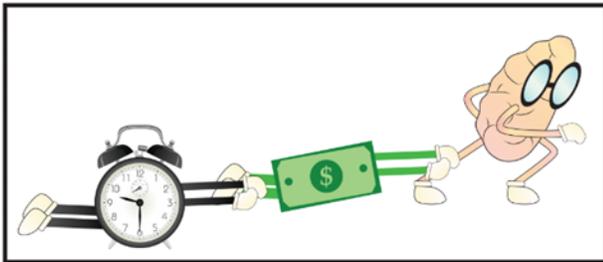


In our everyday lives, the all too human tendency to place a value on something that has no value often leads to a poor decision. Some individuals use computers well beyond their expected useful life, which is about six years. Some computers, especially if they were originally above-average systems, can provide good service for over six years. However, time takes its toll on electronics just like it does on people. Computers tend to get slower with age, and with age, computer users will get more and more "Not responding" popups and other annoyances.

Rather than replace a computer, it is amazing how much slowness and other problems some users will endure. After a computer reaches a certain age, even significant upgrades, like replacing a mechanical hard drive with an SSD, will only delay the inevitable. Even after installing a new SSD, the system's other components are still old and nearing the end of their life. The wise course is for the user to bite the bullet and buy an adequate new computer.

### Conclusions

Any time you allow the sunk cost fallacy to influence decisions, you're going to make it harder and harder on yourself to let go in the future. So essentially, falling victim to sunk cost bias not only means you're making a poor decision now but increases the chance you'll continue to make a wrong decision in the future because, at that point, you'll be even more invested.



Are you spending time or money on something because of the time or money you already have invested? If so, I urge you to step back from what you're doing and evaluate the situation logically by asking yourself, "Is this the best use of my time or money at the present moment?"

This is a bigger problem than many of us realize, and it's negatively impacting our lives. Sunk cost fallacy leads to poor decisions, which leads to sub-optimal results, which leads to decreased long-term happiness.




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## Two if by Land, one if by Air

By Phil Sorrentino, Newsletter Contributor, Sarasota Technology Users Group  
www.thestug.org - philsorr (at) yahoo.com

Well, that may not quite be the famous quote "One if by land, two if by sea," that allowed Paul Revere to signal the patriots how the English army was coming. But the idea may be similar. Here it's a statement of choices, and in this case, the option is how the internet is connected to your home. Until recently, the only choice was "by land." (Yes, I know there is DishNet [communications-satellite provided internet], but that is a reasonably small

percentage, and it doesn't fit in my metaphor-simile.) There are two land delivery methods in this general area of southwest Florida, cable, and fiber. In the Sun City Center area, Spectrum will provide internet to your home via a cable-TV type of cable brought right into your home. (Brighthouse was the provider until 2015 when Charter Communications acquired Brighthouse and folded it into Charter Spectrum.) The other land internet provider is Frontier Communications. Frontier provides the internet via fiber optic cable brought right to your home. (The actual cable brought into your house may be fiber, but more typically, the fiber signal is converted to a cable-TV signal at the entry point, and a cable-TV type of cable is brought into the house.) Verizon installed all the fiber in the Sun City Center area, and then in 2016 sold that part of their business to Frontier.

So that's the two land choices, now for the air choice. The air choice is 5G wireless to the Home. Until 5G, distribution of the internet via wireless may not have been considered practical by Internet Service Providers for various reasons. But 5G's frequency spectrum, modulation schemes, and bandwidth appear to make it a practical way to connect homes to the internet. Keep in mind that this is a way to connect the internet to the house. Once the home is connected, you don't need a 5G phone to use the internet; Wi-Fi connects all your devices in the home to the internet. (A 5G phone is still required if you want to access internet resources directly using the 5G network.)

Just a brief review:

1G - The first generation of wireless systems was voice-oriented, analog cellular,

2G – The second generation was voice-oriented digital cellular,

3G – The third generation changed the emphasis from voice to data,

4G – The fourth generation increased the available bandwidth,

5G – The fifth generation continued to improve the available bandwidth and speed.

Most of us use phones that can take advantage of the 3G and 4G networks, though some newer, more expensive phones can use the 5G network. Here are some of the major features of the five generations. For those with technical curiosity notice the bandwidth improvement; it went from Two Thousand bps to over One Thousand-Million bps.

Features	1G	2G	3G	4G	5G
Start/Development	1970/1984	1980/1999	1990/2002	2000/2010	2010/2015
Technology	AMPS, NMT, TACS	GSM	WCDMA	LTE, WiMax	MIMO, mm Waves
Frequency	30 KHz	1.8 Ghz	1.6 - 2 GHz	2 - 8 GHz	3 - 30 Ghz
Bandwidth	2 kbps	14.4 - 64 kbps	2 Mbps	2000 Mbps to 1 Gbps	1 Gbps and higher
AccessSystem	FDMA	TDMA/CDMA	CDMA	CDMA	OFDM/BDMA
Core Network	PSTN	PSTN	Packet Network	Internet	Internet

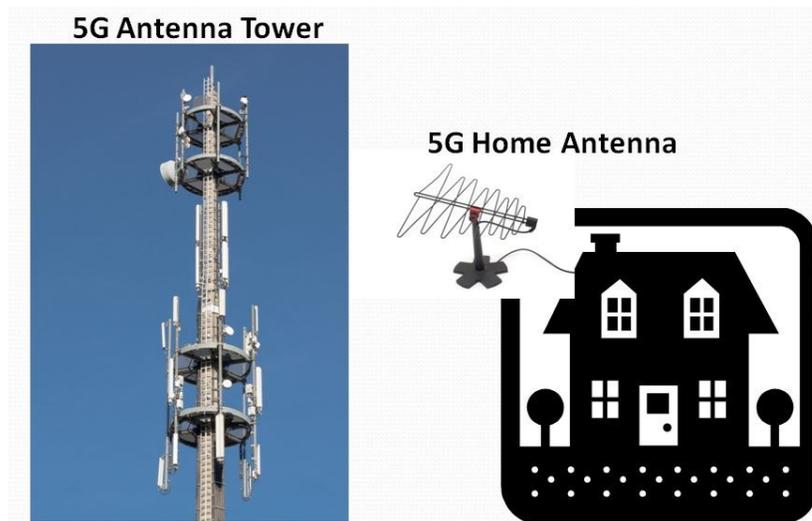
Advertising for 5G states that 5G Wireless Technology is intended to deliver higher multi-Gbps data speeds, ultra-low latency, more reliability, increased network capacity, and availability, and provide a more consistent user experience for more users.

5G Internet to the Home is currently only available in certain cities. A recent estimate for T-Mobile indicated about 30 million people in about 40 states. So more than likely, all three major internet companies, Verizon, AT&T, and T-Mobile, will eventually provide 5G Internet

to the Home in many geographic areas, even if you are not seeing any advertising for it right now. (The only advertising I've seen so far was an article that indicated that T-Mobile and Verizon services would be \$50/month with no contract, no equipment charges, no added fees, and no data caps. We'll see.)

If you Google "5G internet to the Home," you will find websites that may help you determine if 5G to the Home is available in your area. T-Mobile and Verizon seem to have the most presence if the number of hits on Google is any indication. Verizon currently offers 5G internet to the home, referred to as "Verizon 5G Home Internet", in selected geographic areas. I tried a Verizon site with my address and concluded it is not available in Sun City Center at this time. However, Verizon offered LTE Home Internet service for \$60/month if I was interested. (LTE stands for Long Term Evolution. It is a term used for a particular type of 4G network that delivers fast mobile internet service.) I also learned that the T-Mobile offering is called "T-Mobile Home Internet" and that AT&T currently only offers a 4G Home Internet. After trying a few other websites, I concluded that 5G Internet to the home is probably not available from any of the three providers at this time in most places.

"5G Internet to the Home" is also called "Fixed Wireless 5G"; to differentiate it from "5G Mobile," which is the standard wireless service that supports our smartphones. Fixed Wireless refers to the equipment used to convert the 5G signals into an internet service. Fixed Wireless Internet is created from a fixed antenna connected to a nearby (and in the line of sight) wireless tower. The fixed antenna receives signals from the wireless tower, which it then sends to a router in your home to provide your home with local Wi-Fi access.



### 5G Internet to the Home

5G Internet to the Home providers advertise that this type of Internet distribution will come with benefits such as higher connection speeds, with a potential to reach 1,000 Mbps, and lower latency. This parameter affects buffering while streaming movies and video chatting. Another benefit cited is that the installation is pretty simple and that, in many cases, it can be installed by the end-user. Additionally, they are projecting higher reliability, lower prices, and no contract or hidden fees. We'll see how all this works out as 5G Internet to the Home becomes available in more and more locations.

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## The AX6 Wireless Router

David Kretchmar, Hardware Technician, Sun City Summerlin Computer Club  
<https://www.sccc.club> - dkretch (at) gmail.com

Could a new wireless router featuring the latest 802.11AX (Wi-Fi 6) protocol solve internet connection issues in your home?

My old wireless router was a Linksys EA7500 Dual-Band Wi-Fi Router (AC), which supported up to 15 wireless devices. The dual-band feature, almost universal on routers today, supports 2.4GHz or 5GHz. So theoretically, you could take the maximum speeds of a band and then divide it by the number of devices on that band to determine the bandwidth available for each device.



The Linksys EA7500 router is an adequate router for its AC (Wi-Fi 5) class, with a total speed of 1.9Ghz and other specs that far exceeded the broadband I was getting from Cox. It sells today on Amazon for \$150.

That might sound like plenty of capacity, but wireless routers never reach their advertised maximum speeds. Real-world speeds are much slower and can vary throughout the day. A speed of around 5Mbps per device is sufficient for most purposes, but if the speed to a device is dropping to low single-digit Mbps, that could cause problems. The 5GHz band is generally faster but has a shorter range, making it work best for devices close to the router.

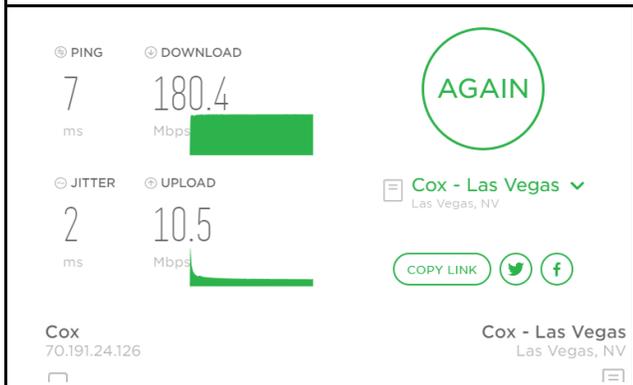
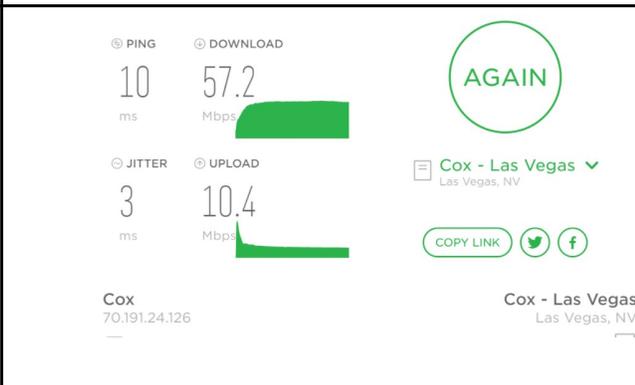
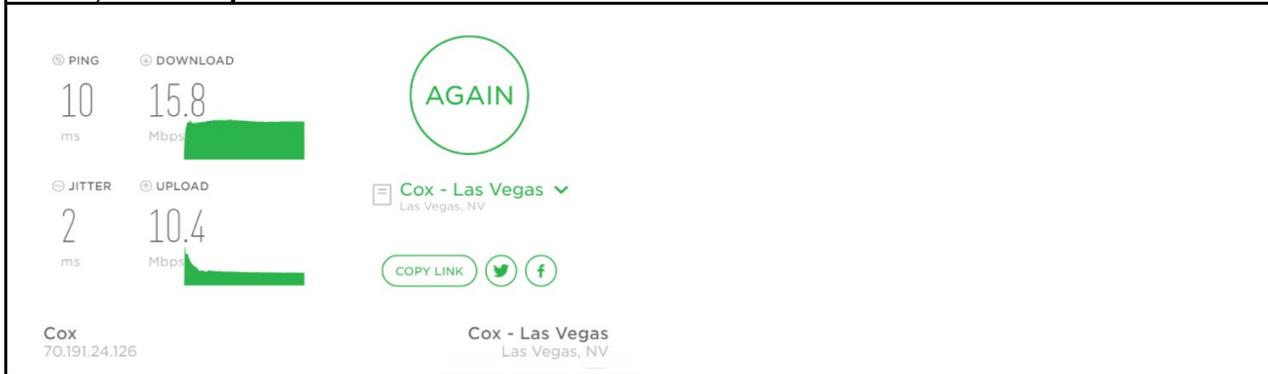
There are 11 channels on the 2.4GHz band; however, many overlap. The “clean” channels – 1, 6, and 11 – are the most popular Wi-Fi connections. A router will automatically pick a channel to use when set up. The problem is that the more popular channels are also subjected to more radio interference from everyday appliances such as microwave ovens and other technology, which means they can struggle to deal with many connected devices. In addition, most “smart” home devices use 2.4GHz channels, which can further clog things. You can often ease the load by switching to another channel (1, 6, or 11).

### Too many devices

When I installed the Linksys router shortly after its release in 2016, the maximum 15 supported devices provided plenty of headroom, yet in 2021, that no-longer state-of-the-art home router seemed less than adequate. I was experiencing slow down and connection issues on my wireless devices. A quick audit of my wireless devices showed that the router was supporting a Ring doorbell, a printer, a tablet, two smartphones, two Alexas, three security cameras, three smart TVs, and up to four wireless computers. If you are counting, as many as 17 devices are supported by one router! Of course, all 17 devices would never be making demands on the router simultaneously, but the number of potential clients could produce enough traffic to overwhelm my router.

### Speed Tests

I set out to determine the source of my troubles. First, I tested 2.4GHz wireless speeds in my home using free PCMatric software. My ISP is Cox Internet Preferred 150, nominally 150Mbps.

<p><i>Internet computer connection speeds via Ethernet connection to the router. <b>180.4 Mbps</b></i></p>	<p><i>Internet computer connection speeds via a close wireless connection (&lt; 10 feet from router). <b>57.2 Mbps</b></i></p>
 <p>Speedtest results for Ethernet connection:        PING: 7 ms        DOWNLOAD: 180.4 Mbps        JITTER: 2 ms        UPLOAD: 10.5 Mbps        Provider: Cox - Las Vegas, NV        IP: Cox 70.191.24.126</p>	 <p>Speedtest results for close wireless connection:        PING: 10 ms        DOWNLOAD: 57.2 Mbps        JITTER: 3 ms        UPLOAD: 10.4 Mbps        Provider: Cox - Las Vegas, NV        IP: Cox 70.191.24.126</p>
<p><i>Internet computer connection speeds via the farthest wireless connection (40+ feet from the router). <b>15.8 Mbps</b></i></p>	
 <p>Speedtest results for farthest wireless connection:        PING: 10 ms        DOWNLOAD: 15.8 Mbps        JITTER: 2 ms        UPLOAD: 10.4 Mbps        Provider: Cox - Las Vegas, NV        IP: Cox 70.191.24.126</p>	

So, I was receiving a fast internet connection, 180Mbps, yet this seemed to be too rapidly dissipating in my home, especially at a distance from the router.

The two devices in my home connecting me to the internet are the modem and the router. If you have cable internet broadband from a provider that uses coaxial cables to deliver bandwidth, like Cox, you have a DOCSIS modem or modem/router combo. There are two DOCSIS standards, 3.0 and 3.1. The most significant difference between DOCSIS 3.0 and 3.1 is that 3.1 can support download speeds ten times faster than DOCSIS 3.0, up to 10Gbps.

### A new modem?

My modem, a 6-year-old DOCSIS 3.0 unit, was my first suspect since I was aware that DOCSIS 3.1 was the newest standard for modems. But my internet plan comes with top speeds of less than 200Mbps. If you rent your modem or modem/router combo from Cox, and your plan provides less than 200Mbps, the modem included with your equipment is likely a DOCSIS 3.0 model, which is adequate for supporting most home internet connections. I learned I would probably see little or no performance improvement by using a DOCSIS 3.1 device over a DOCSIS 3.0. And considering the price difference, replacing the 3.0 with a 3.1 would probably be a waste of money.

## A new router?

The logical solution seemed to be to try a new router. More specifically, a router with Wi-Fi 6 capabilities (which should help in the future as more mobile devices become compatible with the latest standard) and routers that can switch between bands automatically. This means that Wi-Fi 6 routers detect when specific devices use a lot of bandwidth and slow everything down, then move them to the 5GHz band or back to help manage speeds. It's a great feature that self-manages the problem.



### The new Netgear Nighthawk AX6 router

Costco had a great special on the highly-rated Nighthawk AX6 wireless router, so that seemed like a logical option. The new router was pretty easy to install, and the improvement was dramatic. Download speeds more than doubled at my most remote wireless device and almost tripled at my closest wireless device. But, as might be expected, the download speed of my Ethernet-connected computer was unchanged.

The only issue was that an older network adapter on one laptop required a driver update to recognize the AX6 signal. And it is a hassle to reset some networked devices, such as Ring.

If you have connection issues and your router is a few years old, consider upgrading to the newest protocol, an AX6 router.



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## Interesting Internet Finds June 2022

by Steve Costello - scostello AT sefcug.com

While going through more than 300 RSS feeds, I often encounter things I think might interest other user group members. The following are some items I found interesting during June 2022.

### ***How To Use Google Chromecast Without Wi-Fi***

<https://www.groovypost.com/howto/use-google-chromecast-without-wi-fi/>

If you have a Chromecast and, for some reason, end up without wi-fi access, this post offers some suggestions for still using the Chromecast. (Note: I have saved this where I know I can access it as I live in Florida and it is hurricane season.

### ***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.

### ***The Write Conversation: Why NOT To Give Away Your Presentation Slides***

<https://thewriteconversation.blogspot.com/2022/06/why-not-to-give-away-your-presentation.html>

This article is for those who give presentations to user groups or other gatherings. The author outlines several reasons you should not give away your presentation slides and suggestions of what to do instead.

### **Peppering Your Passwords**

<https://firewallsdontstopdragons.com/password-manager-paranoia/>

In this post are some suggestions for creating and keeping track of your passwords. This is not an all-encompassing solution by any means. (Note: I am interested in password security, so this kind of post always gets my interest.)

### **Stop Using Your Tablet Like An eReader**

<https://www.reviewgeek.com/121521/stop-using-your-tablet-like-an-ereader/>

This post explains, and I agree, why you should stop using your tablet as an ereader, and instead get a dedicated ereader (not necessarily a Kindle) for reading ebooks. (Note: I have both a Kindle and a tablet but, I use the tablet only for reading emagazines not ebooks.)

### **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.

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President's Corner

### **Most Wished-For New Tech**

By Greg Skalka, President, Under the Computer Hood Use Group  
[www.uchug.org](http://www.uchug.org) - president (at) uchug.org

We seem to have so much technology in our lives - how could we want more? But, I'm writing this on President's Day, and I wonder, if George Washington could be transported in time to today, would he be able to cope in our world? Beyond the social and economic changes he would face, would he be able to deal with our technology? Cars, trains, airplanes, radio, TV, cell phones, space travel, nuclear bombs - would he be able to understand any of it, or would he want to hide up in a cherry tree? There is a saying: Any sufficiently advanced technology is indistinguishable from magic.

If we were able to bring Abe Lincoln to the present day, would he be any better able to understand our world? He would have at least some familiarity with trains and some industrial technology. Since he used the telegraph, he may be better able to cope with our communications tech today. What if we could bring Albert Einstein (who died in 1955) to the present? Would he be astounded by the capabilities of a smartphone?

What new technology would you most like to see introduced this year? This was a question a web app asked my friend's wife. Because she currently has two retirement homes, one in Idaho and one in Arizona, she said what she wanted most was a transporter.

No matter how much tech we have, we still have science fiction, which can drive our desires for more and direct our innovation. For example, everyone has seen Star Trek and its transporter device, a means to "beam" people and materials from one place to another in almost an instant. My friend and his wife have traveled between their homes many times in the last year, so it was understandable that she would like a way to make that trip more quickly.

The Star Trek transporter is generally portrayed as a circular pad connected to a device or console on the floor. A person on the pad is scanned atomically and then de-materialized, with the data representing their physical manifestation sent to a remote location and re-materialized. Matter, to energy, and back to matter. That seems like it could be in the realm of science and not magic, at least for non-living things. If we can have a 3D printer today using elemental materials, who is to say we couldn't one day print in atomic particles, creating atoms and molecules of any kind?

That is likely the science behind the Star Trek replicator, the cousin of the transporter. It can create inanimate objects of great complexity from a data file, with energy as the only apparent input. From "tea, Earl Grey, hot" to complex parts, the replicator could help feed our world and solve many problems, as long as you could solve the problem of where to plug it in. Of course, Star Trek tech would have to include a powerful green power source like a fusion reactor.

We are starting to take some steps toward the food replicator concept. For example, I've read about a company trying to "grow" animal tissue that can be 3D printed into burgers or steaks. This would provide "cruelty-free" meat that perhaps requires fewer resources than our current agricultural methods.

The Star Trek replicator only made food and parts; it seemed incapable of creating a living object, making it more plausible. Many people, myself included, have concerns about the apparent "destroy, then re-create" operation of the transporter in Star Trek. There were a few episodes in which a character's information was trapped in the device's "pattern buffer" (presumably memory) for years or decades before someone found a way to re-materialize them. In one episode, a transporter malfunction created a second instance of a character. This would have obvious religious implications in the real world, but apparently not in Star Trek.

My preference for quick and distant travel would be by stargate, from the movie "Stargate" and its derivative TV series. In this sci-fi franchise, stargates are devices created by ancient aliens that can connect with a wormhole (a "tunnel" through spacetime). Anything passing into a connected stargate instantly passes through the wormhole and out the stargate at the other end. These seem more supported by science than transporters; now, we need to find those aliens to show us how to build them. Perhaps those aliens in the movie "Contact" could help. If only they'd send us the plans.

My favorite "wish-for" tech device is something I've not specifically seen in any science fiction: the temporal cakebox. My concoction solves one of my most vexing problems: how to fully enjoy my favorite food - chocolate cake. We live in a time of food plenty, with a nice chocolate cake available at Costco for a good price. I'm too thrifty to want to pay for cake by the slice, but I can't (and should not) consume a whole cake in the time before it degrades. So what I need is a temporal cakebox.

I envision the temporal cakebox as a device similar to a large microwave oven. When you buy a cake, you would take a slice, put the remaining cake in the temporal cakebox, close the door and activate it by pressing the Reset button. Later (hopefully at least a day or two), you can return to the temporal cakebox and press the Return button. This would return the inside of the device to the time when you last pressed the Reset button. Then, you could open the cakebox door, remove another slice (just as fresh as when you put the cake in), close the door, and press Reset again. This sequence can be repeated over any timeframe until the cake is gone, with the last slice just as good as the first. Since I'm not violating any laws on the conservation of matter (I'm not creating any cake, just doling it out over spacetime) or making any time travel paradoxes (no cake is going back in time to kill my grandfather), I don't see why the temporal cakebox can't work.

The stereotypically expected technology always involves a flying car. Don't you remember thinking as a child that we would have flying cars by the 21st century? We are almost a quarter of the way through it, and still no flying cars. I can't see that we could have flying cars for the masses unless they were self-flying. Since we can't seem to perfect self-driving in two dimensions, flying cars seem like a long way off.

Another slightly related tech item is the personal jetpack. Those appear to be available (as well as wingsuits), though they are relatively expensive, in the \$250k to \$500k range. Finally, the personal drone is affordable, though I've yet to see any Amazon delivery drones in my neighborhood.

AI, or artificial intelligence, is being worked on today. It may one day drive our cars, fly our planes, find a solution for global warming or rule us as a benevolent overlord. Right now, all an AI can do is win at Jeopardy and predict what we will buy next. It has been eleven years since the IBM Watson computer beat Ken Jennings on Jeopardy; what has it been doing since then? At least Watson is not trying to invade Ukraine. Or is it? [ see the article "Watson Sold Off for Parts" at" <https://slate.com/technology/2022/01/ibm-watson-health-failure-artificial-intelligence.html>]

If AI could be made safe and effective, one good use for it would be as a robot helper. Having a few droids around the house to help out would be great. Oh, wait! My wife has a Roomba robot vacuum, though she hardly uses it. So, I guess it is no R2-D2 or C-3PO.

## Streaming Surpasses Cable TV as the Way Most People Watch Television

by Kurt Jefferson

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### Streaming Is Now King

**More people are streaming TV shows and movies for the first time** rather than watching cable TV programs. In fact, the total time spent viewing streaming services in July soared nearly 23% over one year ago.

**This is a major change in the way most of us watch TV.** Nielsen has even confirmed it: Streaming is in. Cable is out. Streaming surpassed broadcast TV viewing in the past, but this is the first time the number of Americans streaming has topped those watching cable TV programming.

#### A Streaming Snapshot The Most Popular Streamers (in order of subscriber numbers)

1. Netflix
2. Amazon Prime Video
3. Disney+
4. Apple TV+
5. hulu
6. Peacock
7. YouTube Premium
8. HBO Max
9. ESPN+
10. CBS All Access

Source: Zippia

Streaming's share of TV viewing hit 34.8% this past July, while cable fell to 34.4%. Broadcast TV stood at 21.6%.

Nielsen monitors monthly TV consumption and says more than one-third of all TV viewing is via streaming.

These figures are for people two years of age and over and tracks monthly viewership between September 2021 and July 2022.

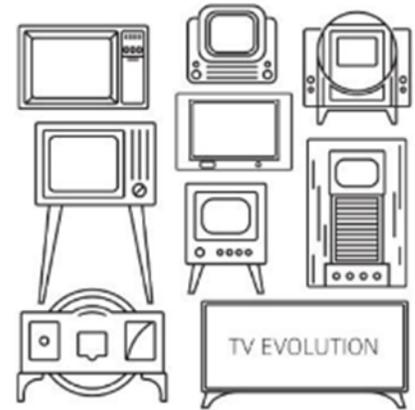
Note that these figures only include streaming programming viewed on a television set.

**Folks who stream using a web browser on a PC or Mac computer** or an app on an iPad, iPhone, or Android phone or tablet are not included in the Nielsen count. Experts say that's a sizable number of individuals not counted by Nielsen.

Cable TV, combined with traditional over-the-air TV with a UHF or VHF antenna, still has the most viewers overall.

But both are dropping, and experts predict streaming will replace that type of viewing over the next few years. Sports viewing on cable TV slid 15.4% from June and 34% from one year earlier when the 2020 Summer Olympics started.

Cable subscriptions have dropped for many years – with increasing prices cited as the number one reason. **Zippia writes that adults between 18 and 29 are the largest group with no cable in their homes. More than one-third of them have no cable TV or satellite TV subscriptions. Many don't watch TV at all.**



According to Zippia, 69% of those surveyed say “cable and satellite subscriptions simply cost too much, and 45% say they don't watch TV very often in general.”

#### **Other Streaming Tidbits:**

Most of us now subscribe to a streaming service (69%), while the number of people worldwide subscribing to cable TV has fallen below 50%, and the number of cable subscribers continues to fall.

CordCutters News reports the biggest cable TV providers lost about 825,000 video subscribers in the first three months of 2022. That compares to a loss of about 780,000 subscribers in the first quarter of 2021. These figures are from the Leichtman Research Group, which tracks video subscription trends.

While many Americans grew up with TV, 44% of all adults alive today have never had a cable or satellite TV subscription. Furthermore, 61% of those are between 18 and 29. Zippia writes, “Not only is cable TV actively losing subscribers, but it also isn't gaining young new subscribers who are moving out on their own and separating from their parents' subscriptions.”

**Well, then, who is watching cable TV?** Not younger people. Adults in the U.S. who are 65 and older make up the largest percentage of cable and satellite TV subscribers.

While streaming services are growing in popularity among all age groups, Zippia reports that Disney+ is the fastest-growing streamer, luring more than 100 million subscribers since it launched in November 2019.

Zippia Cord Cutting Statistics

Pew Research: Cable and Satellite TV Use Has Dropped Dramatically in the U.S. Since 2015.

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