

PATACS Posts

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Newsletter of the Potomac Area Technology and Computer Society

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Page 1

My turn.....

Wow...it's almost the end of another year! And a busy one it's been for this kid...what about you? Did you get everything done or at least all that you planned?



Thanksgiving is barely "in the books". It was quite the time for our family. Our daughter lives here in DC with her husband and son. Our son came from Brooklyn with his wife and their two boys. Our daughter/son-in-law hosted fifteen people who came for the "big meal". The food was excellent and I think everyone had a good time.

At the end of December, the DC crew, my wife, and I will head to Hawaii for winter break. It's my last trip of this year and my first trip for next year.

My last photo trip this year was a workshop with a group called National Parks At Night (www.nationalparksatnight.com) whose workshops I've done previously. This one was in the newest national park, New River Gorge in central West Virginia—about a five-hour drive from the DC area. For late October, the weather was quite nice, sunny with daytime temperatures in the 70s and mostly clear skies and night-time temps in the 40s. We were out a lot at night since that's what the workshop was all about (nighttime photography).

Right now, I'm in the process of printing some of the 3200 images I shot in Africa in August and September.

So...what's new with you? I'd really (really, really) like to hear from you. I know nothing about you! I know the members of the BoD (Board of Directors) a little bit, but nothing about you and I'd like to know something. My email address is editor@patacs.org. Shoot me an email and tell me about yourself. Let me know if I can put your info into this rag! I figure if I want to know about you, so does the rest of the membership.

Some good news; we have some new contributors this month. Gabe Goldberg, whom I assume you all know. If you don't, Gabe has been a director for many years and is the club's representative to the APCUG (www.apcug.org). The "new guy" is Frank Fota. Frank comes to us by way of the Fredericksburg Computer Users Group. The FPCUG is in the process of closing up shop and Frank found his way here. He's already a member of your BoD and a contributor to the PATACS Groups. IO group, and with this issue, a contributor to POSTS as well.

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####

Upgrade Your PC Or Build A New One?

by Frank Fota fotafm@gmail.com

Director, Potomac Area Technology and Computer Society (www.patacs.org)

Most people upgrade to improve performance. Have you ever compared a modern multicore processor's single-processor performance to an older single or dual-core processor running at the same speed? Modern processors generally perform better. However, unless you are playing modern video games or transcoding videos, the additional cores/threads are wasted. Modern multicore processors typically have more *cache* memory, however, and that memory is available to one or all of the processor cores. If you can afford more cores, consider a multicore processor with more cache memory.

Processor frequency is another significant performance factor and modern multicore processors operate at higher frequencies. The relationship is not linear so you might expect to see perhaps a 5-10% improvement for a 25% faster processor.

Additional Random-Access Memory (RAM) can improve performance but it is wasted unless

you truly need to use more memory. If your computer runs out of physical memory, data in it can be temporarily stored (or swapped) to a mechanical or solid-state drive until needed. If the "swap" drive is mechanical v. solid-state, performance can truly suffer. You can check the amount of available memory and the amount in use by typing "System Information" in the Taskbar search box. Details are presented on the right side of the window (as on the right).

Installed Physical Memory (RAM)	16.0 GB
Total Physical Memory	16.0 GB
Available Physical Memory	10.1 GB
Total Virtual Memory	29.4 GB
Available Virtual Memory	22.3 GB
Page File Space	13.4 GB
Page File	C:\pagefile.sys

Now open a few of the programs you frequently use and check the results again. In my case, only 6 of the 16 GB of available RAM were in use. Random-access memory or RAM is available in many types (e.g., DRAM, SDRAM, DDR, GDDR, HBM, and SRAM). The age of your motherboard will dictate the type and amount supported. Modern computers or motherboards support faster memory and more of it.

If you have to add memory to perform a particular task, install a modern operating system, or use a modern application; you may have to replace your motherboard. If the thought of rebuilding a computer makes you uneasy, buy a new one. Based on personal experience, I recommend Dell, HP, or Lenovo. If you have a notebook or tablet PC, your upgrade options are generally limited. Most notebook computers were not designed with upgrades in mind. There are exceptions [e.g., the Alienware (i.e., Dell) Area 51m, the Dell XPS, and the Lenovo ThinkPad line of notebook computers allow easy access to the memory slots, internal drive slots, and drive bays].

If you are upgrading to a faster processor, you need to remember that speed comes at a price: dollars and heat. Generally, the higher the frequency the more heat produced and

> the higher the price. Modern processors produce less heat than their older counterparts. That heat has to be dealt with.

For desktops, a robust CPU cooler or a *water* cooling system can practically eliminate heat as a potential problem. Notebook computers are not as effective at dissipating heat and this is why the processors in notebook computers are often mobile versions that operate at lower

frequencies and lower temperatures. I recently found that installing a blower attached to the air vents is a more effective way to cool an overheated notebook computer.

Replacing a mechanical hard disk drive (HDD) with a solid-state drive (SSD) can make an old computer feel brand new. Data transfer from an SSD is typically 10 times faster than a mechanical HDD. The cost of SSDs is now reasonable and there's no reason to put off this simple upgrade. A 256GB SSD can be purchased for \$40 and a 512GB SSD for \$60 on Amazon.com. Replacing an HDD with an SSD or increasing the amount of physical memory (if your computer needs it) are relatively easy tasks, in most notebook computers. A cover on the underside of most notebook computers typically provides ready access to both.

Replacing the motherboard of a notebook computer is generally not an upgrade option. If replacing the motherboard of your desktop, I recommend reinstalling the Operating System (OS) from scratch. (Editor: all software should be installed from scratch!) If you have more than 4GB of physical memory, be sure to install a **64-bit** version of the OS. The 32-bit version of the Windows OS cannot address and use more than 4GB of memory. If you are simply upgrading an HDD to an SSD, consider *cloning* the HDD. Free cloning software is readily available (e.g., Clonezilla). The advantage of cloning is that it leaves the original OS. programs, and data in place. If your desktop computer has integrated graphics, consider adding a dedicated video card. A dedicated video card will relieve the CPU of graphics

processing tasks and improve overall performance. It will also improve the performance of demanding graphics tasks (e.g., gaming, photo or video editing, movies, etc.).

If your PC is over 7 years old or requires a faster processor or additional memory that your current system does not support, I would advise you to purchase a new computer.

###

Car Fob Battery-Saving Function Also Enhances Security

Learn another way to prevent your fob from responding to thief radio signals

By John Krout, Potomac Area Technology and Computer Society (www.patacs.org)

Introduction

For the past few years, I have been teaching how to prevent theft of keyless car entry/startup cars. If you are not already familiar with that topic, you can see my presentation in a May 2023 APCUG Wednesday Workshop video on YouTube https://www.youtube.com/watch?v=OCunZsK1R7s. This article is an addendum to that presentation. **Illustration 1** is a QR code containing the YouTube URL. You can scan the QR code and enable your browser to open that URL, a convenient way to avoid the time and typo risk of typing the URL yourself.



After that May 2023 presentation, a member of the Pike's Peak Computer Club sent me a discussion of fob capabilities he had found in the manual for his 2012 Toyota Camry. The

most relevant was a method to prevent car theft by disabling the fob's ability to receive radio signals from the car, including radio signals amplified via a thief's radio repeaters.

It was not easy for me to find a similar capability for the fob in the manual of my 2020 Prius Prime, but eventually, I did find it. It was in the car manual's discussion of the fob and specifically labeled as a fob *battery-saving* function. The 2020 Toyota Prius Prime manual page is in **illustration 2**.

The manual does not call this battery-saving function a security measure. Still, the battery-saving technique also prevents the widely-used method of stealing cars equipped with fobs.

I also noticed that the fob is described in the manual as an *electronic key*. If you own a Toyota with a fob, then searching for "*electronic key*" in the PDF version of the car manual may be the best way to find out if you can do the same. You can download the PDF in English from the Toyota USA website: https://www.toyota.com/owners/resources/warranty-owners-manuals. The QR code in **illustration 3** contains that long Toyota URL.

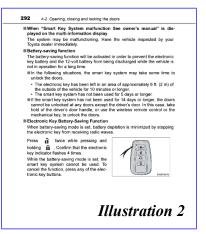




Illustration 3

Two different models and model years of Toyota keyless entry/startup vehicles shared the same fob behavior. This makes me think the feature has been included in Toyota fobs for more than a decade. The fobs are provided to Toyota by a subcontractor. That contractor and its competitors sell to a variety of car makers. So the same fob behavior may be found in fobs for other brands of vehicles.

The bottom line is that your fob, regardless of your car make and model, might have a similar feature. Checking your car manual to see if yours offers that feature is like chicken soup: it can't hurt, and it might help.

Why is a battery-saving feature also a security feature?

The battery-saving feature turns off the fob's radio receiver. Therefore the fob cannot receive radio signals from the car.

The radio signal from the car is ordinarily very low power, If the fob receives that signal, it sends a low-power response, and the car concludes that the fob is close to the car. The car then unlocks the driver's door.

The signals are low power intentionally, so a fob inside a home cannot receive that signal.

As explained in the APCUG video of the presentation, a car thief uses two inexpensive, battery-powered radio repeaters. This is usually done at night so there are few people awake to notice the unusual behavior.

The thief places one at the car, and another at the front door of the owner's home. The repeater at the car picks up the radio signal from the car and repeats it at high power, and the repeater at the door picks up that repeated signal and again repeats it at high power. A fob inside the front door receives it and responds. That response is picked up by the front door repeater and amplified. The car repeater receives it and sends it to the car. Voila! The car unlocks the car door for the thief.

A similar exchange between the car and fob via repeaters allows the car to enable the Power button on the dashboard so the thief can power up the car, retrieve the repeaters, and drive away.

That theft scenario fails if the fob radio receiver is turned off: the fob does NOT receive a radio signal from the car via the repeaters or in any other way.

The manual page explains how to enable/disable the fob radio receiver.

If you own two fobs, as most Prius owners do, and both fobs are normally close to the front door, then you need to apply the battery-saving technique to both fobs.

Adjusting fob use habits

Note that, after disabling the fob receiver, enabling the fob receiver requires tapping a fob button. That button's use of the fob transmitter is a battery-intensive action because the fob can send to the car across a distance of 30 feet or more in ideal conditions. I try to avoid frequent use of the fob buttons so that my fob battery lasts a long time, but one tap to enable the fob receiver is not at all wasteful of fob battery power after many hours of not powering the fob receiver, such as overnight.

A typical scenario would be to disable the fob receiver when you expect not to use the car for many hours. Overnight at home is one obvious example. Another is while you are away from your home and car for many days.

When you resume use of the car, because the fob receiver is still disabled, unlocking by proximity will not work. Instead, you will be required to tap the fob unlock button. That same unlock button tap also re-enables the fob receiver, so you can use the low-power proximity automatic unlock until you next disable the fob receiver.

###

Living the Electric Life

By Gabe Goldberg (gabe@gabegold.com)

Today's mobile lifestyle is convenient—except when it comes to keeping one's gadgets charged and usable. Our house is inhabited by two humans, two cats, two iPhones, two iPads, one Apple Watch, two hearing aids, four emergency flashlights, three Apple HomePod Mini speakers, and a Google speaker.

When my wife and I tired of plugging/unplugging/plugging various devices into one family room charger, I bought a five-port charging station and a supply of short cables:



An Anker Charger, 60W 6-Port Charging Station, PowerPort 6 Multi USB Charger for iPhone 15/Pro/Pro Max/14/13, iPad Pro/Air/Mini, Galaxy S23/S22/S21, Note 20 Ultra, LG, HTC, and more: https://www.amazon.com/gp/product/B00P936188. Since this was to live in the family room, it needed to be presentable, so it's enclosed in:

Bamboo Charging Stations for Multiple Devices, Wood Dock Station Rack for Cell Phones, Tablet, Smart Watch, & Earbuds (Includes Wire Cables BUT NO Power Supply Charger):

https://www.amazon.com/Charging-Alltripal-Multi-Charger-Organizer-

Compatible/dp/B095LWSQSC/ref=sr 1 1 sspa?crid=2Q1C36NM HOVEE&keywords=bamboo%2Bcharging%2Bstation%2Bfor%2B multiple%2Bdevices&qid=1701293429&sprefix=bamboo%2Bchar ging%2Caps%2C70&sr=8-1-

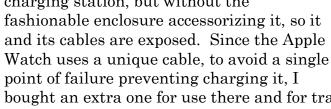
spons&sp csd=d2lkZ2V0TmFtZT1zcF9hdGY&th=1

This central depot can simultaneously charge both iPads, both iPhones, my Apple Watch, and my hearing aids (in an extracost fancy device, closable to prevent feline mischief).

The photo shows the family room bamboo enclosure with my watch, iPad, and iPhone being charged, and the closed hearing aid charger.

My office has a similar setup: a five-port charging station, but without the fashionable enclosure accessorizing it, so it point of failure preventing charging it, I

bought an extra one for use there and for travel. The standard no-cover Oticon hearing aid charger is there, high enough to be out of feline reach.







The photo at left shows the office charging station with cables: the watch is on the charger, and the hearing aid charger is open.

Besides the two fixed charging stations, I have a long extension cord with a standard Apple charger and a USB-to-Lightning cord, for use in my office or family room when I've run down the iPad battery but want to use it for Zoom.

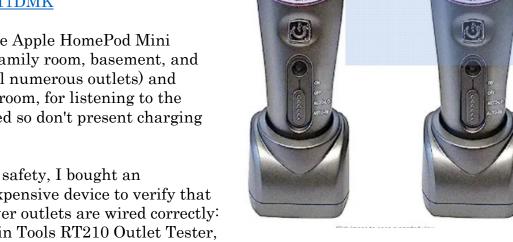
Four handy emergency flashlights stay charged and light when power fails, or if we need a handheld light: my office, bedroom, family room, and basement.

Capstone Lighting 4-in-1 Eco-I-Lite, 2 Pack (right)—Emergency Flashlights, Night Light,

Power Failure Light, and Work Light—This Rechargeable LED Flashlight is Perfect for Power Outages and Hurricanes

https://www.amazon.com/Capstone-Eco-I-Lite-Rechargeable-Emergency-Flashlight/dp/B076B11DMK

Fortunately, our three Apple HomePod Mini speakers (my office, family room, basement, and used mostly to control numerous outlets) and Google speaker (bathroom, for listening to the news) are A/C powered so don't present charging chores.



For safety, I bought an inexpensive device to verify that power outlets are wired correctly: Klein Tools RT210 Outlet Tester,

Receptacle Tester for GFCI / Standard North American AC Electrical Outlets, Detects Common Wiring Problems: https://www.amazon.com/gp/product/B01AKX8L0M

But wait—some devices are also used in cars, so we need chargers there too. Fortunately, both cars have two charger outlets—one in the usual dashboard position, and another inside the center console. That's fortunate because our main charger ports are occupied by dash camera plugs.

My 2007 Honda Accord doesn't have a cutout in the console to snake a cord through; Honda eventually realized that's needed so my wife's 2014 Honda Accord has that.

Our cars use chargers like this one (though this is newer than our models so includes USB A and C ports): Ailkin 30W PD USB C Car Charger, Fast Power Charging Block Dual Port USB A & C Plug Cargador Carro Lighter Adapter for iPhone, iPad, Samsung Galaxy, LG, Google Pixel, Moto, USB-C Port

https://www.amazon.com/AILKIN-Charger-Charging-Cargador-Lighter/dp/B08S333KDC.





And wait again; plenty of devices run on batteries. I keep them organized with something like this:

Ontel Battery Daddy—Battery Organizer Storage Case with Tester, Stores & Protects Up to 180 Batteries, Clear Locking Lid: https://www.amazon.com/Ontel-Battery-Organizer-Storage-Tester/dp/B089F9YDFC.

Finally, of course, when traveling, there's sometimes no electrical outlet, car charger port, or airplane seat USB port handy. Without power, civilization dies. That's when you need a portable power pack (or two) for keeping "lights, camera, action" alive.

These come in diverse power

capacities, sizes, shapes, and weights. (Right) A powerful (and heavy!) big boy is the iMuto Portable Charger X6 Pro: https://www.amazon.com/imuto-30000mAh-Portable-Charger-Compatible/dp/B0B252GCL5.

Left and smaller by all measures and more practical for



toting and quickly boosting devices is the Anker PowerCore 5.000mAh Portable

Charger https://www.amazon.com/Anker-PowerCore-Ultra-Compact-High-Speed-Technology/dp/B01CU1EC6Y

The increasing diversity of charging interfaces adds challenges for travel, toting everything necessary: magnetic charger for Apple Watch, hearing aid case, USB variations, etc. At least inexpensive adapters exist for matching nearly anything to anything, including Apple's Lightning and different USBs, reducing the need to replace expensive chargers and cables.

So, unless someone develops miniature nuclear-powered electricity sources, we'll continue to depend on this diverse assortment of gadgets and cables to keep civilization illuminated, moving, and computing.

###

I haven't tested it.

Personal Computer Security

By Dick Maybach, n2nd@att.net

Brookdale Computer User Group www.bcug.com

Home users must manage three types of security:

- information security-protecting their information,
- application security
 – securing their applications against modification and misuse, and
- network security-preventing access to their network.

Only a small portion of your data, such as passwords and credit card numbers, is sensitive and needs special protection. For most, you are concerned only with recovery if lost, and here a good, well-tested backup discipline is the solution. It doesn't matter if the loss was because of hardware failure, operator error, or malicious software. Please note the "well-tested." If you haven't recently and successfully restored data from a backup, you don't have a backup *discipline*, only a backup *hope*.

Sensitive data must be encrypted. I use KeePassXC, https://keepassxc.org/, for passwords, PINs, and financial access data, such as credit card and bank account numbers. The program stores these in an encrypted database, which I keep on my PC. If you keep it on the cloud, it will be available to all your devices with Internet access, but it's also more vulnerable to attack there. This means it needs a stronger password. A compatible Android app uses the same database as KeePassXC, which means the data is also safeguarded on your smartphone. The application also generates passwords of arbitrary complexity, making using a unique, strong password for each account easy. Other password programs have similar features. I use VeraCrypt,

https://www.veracrypt.fr/en/Home.html, to encrypt files, directories, and storage media on my PC. I've seen reports that the EDS app allows access to VeraCrypt files on Android, but

Many financial institutions require two-factor authentication when you access your account. The most common is texting a one-time PIN to your cell phone after you log into your account with a username and password. You need both your password and the registered smartphone with them. Also, be careful when you travel that you can receive text messages in the countries you visit if you use credit cards.

Phishing attacks, where you get calls or messages asking you for sensitive information, are far more common than those through your PC. I get these almost every day, such as:

- "Your bank account has been locked; click this icon to unlock it,"
- "Your email storage is full; click this icon to free some,"
- "Your PC is infected with viruses; click here, and Microsoft will help you solve this,"
- "Amazon is about to ship you a new cell phone and charge your account; click this icon to prevent it," and
- "You owe money for past-due taxes; call the IRS at this number."

Usually, these are obvious scams, but occasionally you must do something. For example, your credit card company may contact you about a questionable purchase. In such cases, log into your account with the contact data in your password file or call the number on the back of the card. Never use a link in an email.

Many attacks occur when you contact disreputable websites. However, you can protect yourself by improving your browser's security.

- Chrome https://support.google.com/chrome/answer/10468685
- Edge https://www.makeuseof.com/guide-to-security-settings-in-microsoft-edge/
- Firefox https://trendoceans.com/firefox-privacy-and-security/

Browsers are becoming more secure, which means keeping yours up to date is especially important. However, browsing can be dangerous; you feel safe because you are comfortable in your own home, but you are poking through the back alleys of the world. If you have any concerns, use the Tor browser, https://www.torproject.org/download/, to protect yourself. Even better, install Tails Linux, https://tails.boum.org/, on a memory stick and explore from there rather than your usual operating system.

Be careful where you obtain software. Years ago, we would go to a tech store to buy a box with the storage medium and a manual, but the stores, boxes, media, and manuals have all but disappeared. We now download or install it directly from the Internet. I prefer to obtain mine from its developer's website after verifying that the URL is valid, and the developer is reputable. I've learned to avoid sites that warehouse many programs, as their downloads often include unwanted extras or malware. Check any download for malware before you run it, and if possible, test it on a secondary computer or virtual machine before you install it on your primary PC.

(Editor's note: you can run almost any file (up to 650MB) through a site called www.virustotal.com, which will check the file against some 50 malware-detecting engines to see if it is infected with anything.)

Keep all your software **not** just the operating system up to date! Many have bugs, some of which have security flaws, and anti-malware software may not protect you from someone exploiting these. Deinstall those applications you no longer use, as every one you have installed is a potential security risk. This also applies to smartphone apps.

Internet Service Providers (ISPs) are notorious for not updating the software in their terminal equipment. Unfortunately, your home network may not be secure, which can be problematic, especially if you have local file servers or other network devices. You can reduce your risk by installing a firewall between your home network and the ISP hardware, providing that you keep it updated and properly configured.

Some companies promote Internet-of-Things devices, such as video cameras that allow you to check on your home from work. Unfortunately, not all are designed for good security; others can also check on your home. Always change the usernames and passwords of such

equipment from their defaults. Consider carefully whether the convenience of the device is worth the risk, and purchase only those for which you can find thorough and valid reviews.

Using a laptop on a public hotspot is much riskier than using one at home, as all your Internet data packets are visible to others using the same hotspot. Be sure to set your PC firewall for this environment and use a Tor browser or a VPN to encrypt your packets. Of course, encrypting sensitive data on a laptop is even more critical than on a home PC, as laptops "get lost". They are also more easily damaged, so they should be backed up, preferably by storing that data remotely. All this is even more true for smartphones.

Some PC users think that security begins and ends with anti-malware software, but reading the above should convince you otherwise. Such programs are helpful but address only a small portion of the risks.

###

ChatGPT is a chatbot - Maybe you've heard about it?

By Phil Sorrentino, Secretary, and APCUG Rep philsorr@yahoo.com Sun City Center Computer Club, FL https://www.scccomputerclub.org/

ChatGPT is one of the latest examples of the use of Artificial Intelligence (AI) in everyday activities. It is a website that is built to answer questions, kind of like a search engine. (A website like this, which answers users' queries with human-like responses, is typically termed a *chatbot*. *Chatbot* is defined as a computer program designed to simulate conversation with human users, especially over the internet.) ChatGPT not only collects information from millions of web pages, but it also digests these huge amounts of information and produces a human-like response. So as a way to try it out, it might be interesting to see what it thinks about itself. Here's the interaction: I asked it to "Explain ChatGPT in 500 words", and here are the results. There are about 460 words in the results, depending on how you count words.

Response from ChatGPT to "Explain ChatGPT in 500 words":

ChatGPT is a large language model developed by OpenAI that uses deep learning algorithms to generate human-like text. It is a type of artificial intelligence (AI) technology that is capable of performing various natural language processing tasks, including language generation, language understanding, and language translation.

The name "GPT" stands for "Generative Pre-trained Transformer." This model is part of a family of neural network-based language models that are pre-trained on large datasets of text. The pre-training process involves exposing the model to massive amounts of text data, allowing it to learn the patterns and relationships that exist within language.

Once the model has been pre-trained, it can be fine-tuned for specific natural language processing tasks, such as chatbot development, language translation, or text summarization. The fine-tuning process involves training the model on a smaller dataset of text that is specific to the task at hand, allowing it to learn how to perform that task more effectively.

ChatGPT is one of the largest and most advanced language models currently available. It was trained on a dataset of over 45 terabytes of text data, which includes books, articles, and web pages from across the internet. The model has 175 billion parameters, making it significantly larger than its predecessor, GPT-2, which had 1.5 billion parameters.

One of the key advantages of ChatGPT is its ability to generate human-like text. This means that it can produce responses to questions or prompts that are indistinguishable from those of a human. This makes it an ideal tool for chatbot development, as it can be used to create chatbots that can hold natural and engaging conversations with users.

Another advantage of ChatGPT is its ability to perform a wide range of natural language processing tasks. In addition to language generation, it can also understand language and perform language translation. This makes it a versatile tool that can be used for a variety of applications, from customer service chatbots to language learning tools.

However, as with all AI technologies, ChatGPT has limitations. One of the key challenges with language models like ChatGPT is that they can be prone to bias. This is because they are trained on datasets of text that reflect the biases and perspectives of the people who wrote them. As a result, the model may produce biased responses or exhibit other forms of problematic behavior.

Overall, ChatGPT represents a significant advance in the field of natural language processing. Its ability to generate human-like text and perform a range of language-processing tasks has the potential to transform the way we interact with technology and each other. However, it is important to be aware of the limitations of this technology and to use it responsibly to ensure that it is used to benefit society as a whole.

End of the response from ChatGPT.

That's almost half of this article, and it only took a few tens of seconds. Pretty interesting, don't you think? *I might not have to spend so much time on my technical articles in the future, or I might be out of a job entirely.* (Editor's note: or not, considering how chatbots are known to make stuff up/lie...)

This might have been pretty easy for the chatbot to come up with because it is probably very close to the source of the information, but I've tried it out on some more general questions and was amazed at the results. (*Just remember*: the results might show a bias in one direction or another based on the information available at the time the query is made.)

Try it out on some general questions and you may be surprised at how accurate the responses are. To try it out you'll need an account. Go to https://chat.openai.com/chat, and click "Sign up". Use an email address as the username and then select a password. (Don't lose the password.) Any time you want to try it out, just go back to

https://chat.openai.com/chat, log in, type a question in the chat box at the bottom of the screen, and then hit enter. Ask it a question about history like, "When was the French Revolution?", or a technical question like "What is cache memory?", or even a question like "How high is the sky?". I think you will be impressed with the resulting information and the human-like language used in the answer. Scam Alert: If you decide to try it out, make sure you use a https://chat.openai.com/chat. (Editor's note: the homepage pictured below is an older version.) Unfortunately, there are already scams circulating out there indicating that you can download a ChatGPT client, with the added incentive of receiving \$50 toward a pro version of the client. A ChatGPT client does not exist at this time. All that is, is a scam to separate you from something of value, like your money or your personal information.





Chatbots are not that unusual; Alexa, Siri, and Google Assistant are common chatbots. As indicated above, a chatbot is a computer program that uses artificial intelligence and natural language processing to understand customer questions so they can automate responses to them, therefore simulating human conversation. You may have interacted with one because they are used in a lot of Customer Service applications. Chatbots help collect customer feedback; they help in order confirmation and tracking shipping; handle refunds and exchange requests; handle helpdesk support; and they can even help customers inside a mobile app. Chatbots are here to stay, and with the incorporation of AI and Natural Language Processing, hopefully, they will only improve with time and improve our interaction with automated services.

###

(Editor's note: for a reasonably current—Nov.30th, 2023—article, see https://www.pcmag.com/news/chatgpt-turns-one-5-things-to-know-about-chatbot-explosive-first-year)

President, Registered Agent, Internet Services	Paul Howard, 703-860-9246, president@patacs.org			
	Mel Mikosinski, 703-978-9158, membership@patacs.org			
Secretary	Jim Rhodes, 703-931-7854, director7@patacs.org			
Treasurer	Roger Fujii, 703-426-5917, treasurer@patacs.org			
Meeting Setup, Director	Bill Walsh, 703-241-8141, director14@patacs.org			
APCUG Liaison	Gabe Goldberg, apcugrep@patacs.org			
Directors: (http://www.patacs.org/boardpat.html)	Mike Emery, Frank Fota, Geof Goodrum,			
Leti Labell, Kathy Perrin, Melvyn Sacks, Bill Walsh, Henry Winokur				
	Henry Winokur, editor@patacs.org			
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PATACS Information

PATACS, Inc. 201 S. Kensington St. Arlington VA 22204-1141

Club Information call: 703-370-7649 Website: www.patacs.org

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Meeting schedule (Zoom=Online Only, Hybrid=Online/In-person)

1 st Wednesday	7:00 - 9 PM	Arlington General Meeting	Hybrid
3 rd Monday	7:00 - 9 PM	Board of Directors Meeting	Zoom
3 rd Saturday	12:45 - 3:30 PM	Fairfax General Meeting	Hybrid
4 th Wednesday	7:00 - 9 PM	Technology & PC Help Desk	Hybrid
Arlington Meet: 5711 S. 4 th ST., Arl. VA Fairfax Meet: 4210 Roberts RD., Fairfax, VA			

Meetings are Hybrid or Zoom (as above)
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