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 – 7:10, Club Business

7:10 – 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

M NIT R

April 8, 'The Future of Microchips & RISC-V', by Arpad, 'Latest Linux Distros for Windows Users', Tony

May 13, 'Humanoid Robot Developement', 'Satellite Internet'

In This Issue

Fileless Malware: Who You Gonna Call?

By Bob Rankin
a Translator for the Technology Impaired
offering Free Tech Support

A clever but pernicious software technique that's been known for more than a decade is finding favor among today's malware authors, complicating the work of anti-virus developers and digital forensic analysts. Tracking down so-called "fileless malware" is to detection of regular malware what ghost-hunting is to catching a garden-variety burglar. Read on to learn about this resurgent threat and what you can do to stop it…

What is Fileless Malware?

The "Good Times" virus hoax, which made its way around the fledgling Internet of 1997, warned users of a ghostly digital menace that would make today's AI bots jealous. It was said to have the power to recalibrate your refrigerator's coolness setting, demagnetize the strips on all your credit cards, move your car randomly around parking lots, make meth in your bathtub, and leave bacon cooking on the stove while it goes out to chase gradeschoolers with your new snowblower. If all that wasn't bad enough, it was "also a rather interesting shade of mauve."

Traditional malware consists of one or more files stored on a hard disk. At least one of these files must be executable, and the malware cannot do any harm until that file is executed. Fileless malware, in contrast, is like a ghost in your computer. It resides in RAM memory and is never written to your hard drive as a file. Then there is semi-fileless malware, with some seemingly harmless parts written to disk while the main executable portions remain in RAM or even on a remote server.

Files leave traces as they are read or written to disk. A file has a pattern that can be reduced to a static signature that can be compared to known signatures in antivirus databases. These and other traits of files make it easier to detect a file-based malware package (a traditional virus) and where it came from.

Instead of tricking the user to download and run an executable file, fileless malware uses legitimate, trusted tools that are part of the operating system to do its dirty work. That means there are no "suspicious" programs on the hard drive, or active in memory. Just the "ghost" lurking in system memory space.

Fileless malware is fluid. Like water poured into different jars full of pebbles, it perfectly fits itself into unused gaps in RAM, all linked together by beginning and ending memory addresses. Traditional antivirus software looks in vain for the wrong thing – a signature – and in the wrong place – the hard disk – ignoring what is in main memory.

Fileless attacks are said to be ten times more likely to succeed than file-based attacks. Fileless malware played a role in the devastating Equifax breach that exposed the personal information of over 100 million consumers. Last Fall, a phishing campaign used malicious Excel macros to launch fileless malware attacks on Windows systems.

But effective anti-malware also detects the shapeshifting ghost of fileless malware. It identifies suspicious areas of RAM by analyzing traffic that flows between them. Having identified the outline of a ghost, the anti-malware zeroes in on that outline to monitor what

crosses it. What the ghost does becomes the important thing, not what it is.

Does the ghost call PowerShell? If so, that call may be blocked until the reason PowerShell is called has been discovered and authorized. Does the ghost send data out to the Internet? To whom and why must be known before that is allowed. All of this learning and blocking must be done instantly, lest some suspicious activity slip past. So effective anti-malware, like fileless malware, must reside in RAM. This requirement constrains how much the ghost-hunting function can do, and how adversely the ghost-hunter affects overall system performance.

Digging Deeper

Fileless malware poses many other challenges for the good guys. I hope these examples give you some appreciation for the prowess of anti-malware developers who keep us safe from much of this nasty stuff, if not all of it. MalwareBytes' Vasilios Hioureas covers fileless malware in excruciating geekly detail in an ongoing series of articles that begins here.

To be honest, even after reading these highly technical articles, I was still a bit confused about exactly how fileless malware actually sneaks into a computer. Suffice it to say that under the right conditions, some combination of unpatched vulnerabilities, a zero-day exploit, a compromised website, a careless click on an email link, an infected document (or perhaps a fragment of an underdone potato) can trigger a fileless malware attack. Malicious instructions are then sent to a legitimate program, which dutifully executes the attack.

Traditional anti-virus programs that rely on file-based scanning will not stop these attacks. Avast, Avira and Bitdefender do claim to protect against this threat, but I had to dig deep to find it on their websites. MalwareBytes has done a lot of research on this type of malware and seems to understand mitigation strategies well.

PC-Matic, my preferred anti-malware tool, differentiates itself by focusing on emerging polymorphic threats and fileless ransomware detection. If you missed it, see my review: PC Matic 4.0 – My Review.

It's important to keep yourself aware of emerging threats and take action where you can to protect yourself, your computer, and your important data. Keeping your operating system, application software and anti-malware defenses updated is an important first step. (See Here's Why You Must Keep Your Software Updated and how to do it for free.)

And since some of these fileless malware attacks rely on Windows PowerShell, I recommend disabling that as well. To do so, follow these steps:

- Type **windows features** in the Windows 10/11 search box, and press ENTER.
- Scroll down to the Windows PowerShell 2.0 line item
- Uncheck the box next to it, and click OK
- Wait for the prompt to restart your computer.

END OF ARTICLE # #

AI-Powered Content Generators: What Are the Opportunities and Challenges?

By Fuad Hasan, 2/19/25

   AI-powered chatbots such as ChatGPT, image generators such as DALL-E, and video generators such as Veed.io are three popular examples of how everyone is now adopting artificial intelligence in their content creation process. These AI tools can create ad copy, blogs, scripts for videos, social media captions, and more within seconds.

   The ease in content creation now presents many opportunities for businesses but also challenges. Let's look at how these tools reshape the industry, the benefits, and the potential pitfalls. We'll briefly touch on how collaboration with one of the top digital marketing agencies in Bangladesh might be your best decision this year.

Opportunities Offered by AI-Powered Content Generators

. Cost Savings
   The most obvious reason for using AI in content is to cut costs. This is incredibly useful for startups and small businesses with limited budgets. These tools are a great alternative to hiring large teams that small businesses cannot afford or accommodate. Businesses can use AI generators to scale their operations without significantly increasing overhead costs.

. Increased Efficiency and Productivity
   Content development requires hiring a strategist or planner who then takes the time to research and develop new ideas, runs them by their boss for feedback, and makes the necessary changes. Once approved, they onboard graphic designers, photographers, videographers, and models and then rent equipment, book locations or studios to create content worth publishing online for views. But with AI content generators, many of these steps and resources are eliminated.
   Tasks that once took days can now be completed in minutes. More ideas, strategies, photos, and videos are now at our fingertips. This efficiency allows companies to focus on strategy, creativity, and campaign optimization rather than spending time on complex content creation tasks.

. Personalization at Scale
   Scouring through photos and videos on various stock content platforms takes up much time but is necessary for companies outside the West. Their content must often feature ethnic people wearing cultural clothes, which are not always readily available online.
   AI tools can analyze ethnicity, nationality, and other data to create personalized content that resonates with specific audiences. This ability is invaluable for engaging diverse demographics across the world.

Tidbits of Probably Useless Information

Chicken holds a special place in the carnivore's heart. This year, the average American will scarf down **99 lbs.** of chicken, handily outranking our consumption of beef (56 lbs.), pork (52 lbs.), and fish (19 lbs.). That's roughly 20 whole chickens per person, per year, in case you're wondering.

The **wild camel** (double hump) of remote areas of China and Mongolia, unlike the domesticated Bactrian (also double humped), is the only land animal capable of drinking salt water with no ill effects and can go for weeks with no water at all.

In some states, there are laws against **fortunetelling**, Tarot card reading, and other divinatory practices, to protect gullible residents from being swindled by con artists. Yep, it is a crime in New York state, unless strictly for entertainment or amusement.

People generally fall a**sleep** quickly, averaging about seven minutes.

Doctors need to work on their **terrible handwriting**. According to a report by the Institute of Medicine (IOM), 1.5 million injuries occur each year because phamacists and healthcare workers misread sloppy handwriting. These errors, involving prescription medications, kill up to 7,000 Americans each year.

. SEO Optimization

There's no longer a need to spend hours doing keyword research and analysis on Semrush, Google Keyword Planner, and Ahrefs. AI writing tools can identify trending keywords and write short and long-form pieces optimized for search engines. Companies aiming to rank higher in search results can now easily do so with SEO-friendly content produced quickly and in bulk, thanks to AI writing tools.

. Versatility

Whether you want a blog in a professional tone, long scripts for YouTube videos, or an ad copy using Gen Z lingo, AI tools like ChatGPT and Jasper can generate various content types. This versatility helps companies meet all their marketing needs across platforms like websites, Facebook, Instagram, LinkedIn, and YouTube. AI tools ensure all digital marketing aspects are covered.

Challenges of AI-Powered Content Generators

. Quality and Creativity

While AI can produce grammatically correct and coherent content, it often lacks the depth and creativity that human writers bring. If a business strives to create campaigns that resonate with audiences, this limitation can be a drawback. AI-generated content may sound generic, failing to connect with the audience on an emotional level. There's also the issue of too many companies using the same writing tools and getting similar descriptions on their websites, making it hard for a business to stand out.

. Over-Reliance

Businesses can become overly dependent on AI tools, sidelining the importance of human insight. Without professional writers, strategists, and creators on board, this could lead to repetitive content that lacks originality. This might hurt a company as it shows they lack innovation and creativity.

. Ethical Concerns

The rise of deepfakes has raised concerns about privacy invasion and misinformation online. AI writing tools often give prejudiced insights or cite fake examples and references in important documents. Copyright infringement in AI-generated content is a big issue, as people put images of celebrities and public figures in photos and videos without consent. These tools must be utilized responsibly to avoid potential legal and reputational damage.

. Job Displacement

A report by Goldman Sachs said Artificial intelligence (AI) could replace the equivalent of 300 million full-time jobs, sparking concerns about job security among writers and creative professionals. This can cause distress, causing them to abandon their profession and move to other lucrative fields.

5 THINGS EDGE'S MOBILE BROWSER DOES BETTER THAN CHROME, Demilade Adejola, How-To Geek, "always used Chrome to browse on my phone, not because I love it, but because it was what was there and it got the job done. However, recently I decided to branch out and explore the Edge mobile browser, and I've already found things that it does way better than Chrome." Read more at 5 Things Edge's Mobile Browser Does Better Than Chrome

APPLE'S NEW HOME PRODUCTS WILL CHALLENGE A LONG-STANDING APPLE RULE, HERE'S WHY – Apple is finally getting serious about the smart home, with three new Home products launching in 2025 and several more after that. Read more at https://9to5mac.com/2024/12/30/apples-new-home-products-challenge-rule/

GHOSTTY – THE FAST GPU-ACCELERATED TERMINAL EMULATOR FOR LINUX – The terminal emulator landscape is undergoing a transformation, with developers reimagining the console to take advantage of modern hardware, GPU acceleration, containerized workflows, and even AI/LLMs in some cases. One of the latest entrants to this space is Ghostty, an open-source and cross-platform terminal emulator created by Mitchell Hashimoto, the co-founder of HashiCorp. Read more at https://www.tecmint.com/ghostty-terminal-emulator/

But it's important to note that while AI can automate repetitive tasks, it cannot fully replace human expertise. It's important to balance using AI and maintaining a skilled workforce.

Conclusion

AI-powered apps and software offer amazing opportunities for the digital marketing industry, helping businesses to work faster and smarter. However, these tools come with challenges that must be overcome strategically to ensure they don't cause too much damage to company resources, reputation, and workforce.

A great solution is partnering up with one of the best digital marketing agencies in Bangladesh. Within a reasonable budget, businesses can get access to personalized, impactful, and innovative campaigns that help compete with the rise in AI-driven strategies. Take advantage of Bangladesh's rising digital literacy and competitive wages today to get the optimum ROI.

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

Printing Your Photos

By Lynda Buske
Ottawa PC Users' Group, Ontario, Canada

Despite our digital world, it is really nice sometimes to print a photo that you can stick on your fridge, display on your wall, or even frame and give as a gift. The main thing to remember is that the print size for a digital image may be limited.

All digital cameras and cell phones have sufficient megapixels to provide the resolution for a 4x6 or 5x7 photo enlargement. Many would have enough for much larger prints (e.g., 8x10 or 11x14). However, cropping in post-production will reduce your image dimensions.

The best starting point is determining what a good quality home or commercial printer will provide. In most instances, the gold standard is 300 dpi (dots per inch), which you can equate to 300 pixels. That means if you want to print an 8x10, the long side of your image would ideally be at least 3000 pixels (10x300). For 16x20, you would probably like the long side to have around 6000 pixels.

The table below provides a rough guideline for the maximum print size of good quality that you can expect based on the number of megapixels your camera has.

Is This for Real?

FOUND IN THE DEEP OCEANS

The **Japanese Spider Crab** is a fascinating deep-sea creature that holds the title for having the largest leg span of any arthropod, reaching up to 12 feet across and weighing up to 44 pounds.

The **Flapjack Octopus**, is a small, deep-sea species found at depths ranging from 500 to 1,500 meters (1,640 to 4,920 feet). This creature gets its name from its distinctively flat, round body, which resembles a pancake or "flapjack." Unlike other octopuses that exhibit more dynamic movements, the Flapjack Octopus propels itself by gently flapping its webbed arms.

The **Mariana Hadal Snailfish** (Pseudoliparis swirei) holds the record as the deepest-living fish ever discovered, inhabiting the Mariana Trench at depths of up to 8,000 meters (26,200 feet). This small, translucent fish has adapted to survive the crushing pressures and near-freezing temperatures of the deep ocean. Unlike many deep-sea creatures that rely on bioluminescence, the Mariana Hadal Snailfish has evolved to live in total darkness, with reduced eyes and a highly developed sense of smell. Its gelatinous body is less dense than water, allowing it to float just above the ocean floor.

Camera resolution	File size at high resolution (pixels)	Max print size at 330 dpi
2 megapixels	1200 x 1600	4 x 5
3 megapixels	1536 x 2048	5 x 7
	2448 x 3264	8x 10
8 megapixels	2592 x 3888	8 x 14
	2800 x 4000	8 x 14
10 megapixels	3264 x 4920	11 x 14
	3744 x 5616	12 x 18
12 megapixels	4000 x 6000	16 x 20
16 megapixels		
21 megapixels		
24 megapixels		

If you have a 24MP camera, your images will probably be 6000x4000 pixels. This means you can do a lot of cropping before going under the 3000-pixel threshold. If you shoot with a 12 MP camera and then crop your images significantly, you may not be able to print an 8x10. However, if your cropped image dimension is still around 1200x1600, based on the chart above, you could print a 4x6. Some older cell phones have only 5 or 6 megapixels, so be careful when deciding what size to print. Unfortunately, many family pictures we want to treasure are taken at social events with cell phones, so get close to minimize the need to crop. Unless you are sure your cell phone has an optical zoom on the camera, don't "zoom" with the finger spread as that is just cropping and hence losing resolution. Even if cell phones tout 20MP or 100MPs, almost all only output 12MP due to pixel binning [https://en.wikipedia.org/wiki/Pixel_binning].

The easiest way to see your image's dimensions in the Windows environment is to go to *File Explorer* and right-click on the photo. Then click on *Properties*, select the detail tab, and find the dimensions below.

One final consideration when making prints is the viewing distance. If you print a 4x6, there is a good chance it will be held in your hand or an album and, hence, very close to your discerning eye. If, on the other hand, you make an 11x14 print for your wall, it may never be viewed at less than a few feet, and therefore the resolution does not have to be as good.

You may have to experiment as to which image dimensions produce an adequate enlargement for your viewing needs and which printing service provides the quality you want. I recommend printing one 8x10 as a test before committing to a company. When submitting digital

Future Medical

Breakthrough Tool to Enhance Precision in Cold-Temperature Cancer Surgery

New York University, 3/3/25

Researchers at NYU Abu Dhabi campus (NYUAD), have developed an innovative tool that enhances surgeons' ability to detect and remove cancer cells during cryosurgery, a procedure that uses extreme cold to destroy tumors. This breakthrough technology involves a specialized nanoscale material that illuminates cancer cells under freezing conditions, making them easier to distinguish from healthy tissue and improving surgical precision.

This advancement not only improves the accuracy and safety of cryosurgical procedures -- helping surgeons preserve more healthy tissue while removing cancer cells -- but also combines diagnostic and treatment functions into one platform. This could reduce the need for repeat surgeries and speed up patient recovery.

Fluorescence imaging, a non-invasive technique that uses light-sensitive dyes to highlight tumors, has gained traction for its ability to provide real-time insights during surgery. However, its use in cryosurgery has remained largely unexplored until now.

Check it out at https://www.sciencedaily.com/releases/2025/03/250303191505.htm.

photos online, many services will warn you if the resolution is not adequate for the print size you requested.

I have found the quality of prints at Shutterfly and Photobook Canada to be very good, but there are significant delivery fees. On the other hand, Staples has the quality but no delivery fees if you pick it up at the store. However, it takes five business days. If you want a quick turnaround of 4x6 prints, a place like Walmart is probably all you need.

Reprinted from the https://opcug.ca newsletter, Editor: brigittelord@opcug.ca

How To Use Wi-Fi Protected Setup

By Jim Canfield / 03/05/2025

Your Router's WPA Button – How To Use it

Prior to the introduction of the WPA button (often called WPS or Wi-Fi Protected Setup) there were several steps that had to be completed to ensure that your wireless device correctly connected to you home router.

While not difficult, if you knew how, unfortunately, most home users are unaware of where the button is located and how simple it is to use. Before the advent of WPA, home users wanting to add their printer or similar device had to locate their Service Set Identifier, commonly referred to as the (SSID). Normally located on a printed label on the router, it will look similar to the list of SSIDs shown below.

1. You would select the correct SSID from the list of available networks in your area, which were easy to see on a PC, Tablet or Phone. It was much harder on devices without a screen.
2. Once located, you would enter your network key (Wi-Fi password) and you were good to go. The biggest problem was knowing which SSID is yours. There could be 20 or more wireless networks in your area. Many of the names are similar and finding yours was not always straightforward.
3. Thankfully, the days are gone when with older devices or some types of network setups, users had to manually configure everything like the IP address, subnet mask, gateway, and DNS servers.

The Advent of WPA

WPA was introduced in 2003 to enhance wireless security without requiring new hardware. Even though it has been around for some time, some home users are unaware of how to use or even find the WPA button. Fortunately, it is very easy to use and find.

How To Use WPA

Today, most devices connect directly to your router by simply pressing the WPA button on the Router (most commonly "blue" and must say WPS). *Press the button on a wireless device or on some printers using the WPS method in the touch screen.*

If your printer does not have a WPS button, then it is probably activated through the touch screen.

Wi-Fi Setup

Manual Connect
WPS (Push Button Method) ←------ Select this
Other Connection Types
Press OK to activated

Press and hold the WPS button on the wireless router, then press OK on the printer. This should complete the connection.

Summary

It does not get any easier than this to connect wireless devices but first you must know it exists. When trying to connect to wireless devices, you may come across the term WEP (Wired Equivalent Privacy). Routers may offer three wireless connection formats WEP, WPA and WPA2. You usually don't have to think about it if there is a WPA button. The router will select the best WPA available.

1. WPA uses 256-bit key while WEP uses 64-bit or 128-bit keys
2. WPA offers improved authentication techniques
3. WEP is outdated and insecure

Found on https://davescomputertips.com/how-to-use-wi-fi-protected-setup/

* * * * * 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.

Nose-to-Tail Mining: How Making Sand From Ore Could Solve a Looming Crisis

By Daniel Franks, March 5, 2025

Every year, the world consumes around 50 billion tonnes of sand, gravel and crushed stone. The astonishing scale of this demand is hard to comprehend – 12.5 million Olympic sized swimming pools per year – making it the most-used solid material by humans.

Most of us don't see the sand and gravel all around us. It's hidden in concrete footpaths and buildings, the glass in our windows and in the microchips that drive our technology.

Demand is set to increase further – even as the extraction of sand and gravel from rivers, lakes, beaches and oceans is triggering an environmental crisis.

Sand does renew naturally, but in many regions, natural sand supplies are being depleted far faster than they can be replenished.

Desert sand often has grains too round for use in construction and deserts are usually far from cities, while sand alternatives made by crushing rock are energy- and emissions-intensive.   There's nothing magical about sand. It's made up of particles of weathered rock. Gravel is larger particles. Our research has found companies mining metals can get more out of their ores, by processing the ore to produce sand as well.

This would solve two problems at once: how to avoid mining waste and how to tackle the sand crisis. We dub this "nose-to-tail" mining, following the trend in gastronomy to use every part of an animal.

Concrete is everywhere – but it requires a great deal of sand and gravel.

The failings of tailings

The metal sulphides, oxides and carbonates which can be turned into iron, copper and other metals are only a small fraction of the huge volumes of ore which have to be processed. Every year, the world produces about 13 billion tonnes of tailings – the ground-up rock left over after valuable metals are extracted – and another 72 billion tonnes of waste rock, which has been blasted but not ground up.

For decades, scientists have dreamed of using tailings as a substitute for natural sand. Tailings are often rich in silicates, the principal component of sand.

But to date, the reality has been disappointing. More than 18,000 research papers have been published on the topic in the last 25 years. But only a handful of mines have found ways to repurpose and sell tailings.

Check out the reasons at https://modernsciences.org/nose-to-tail-mining-sand-from-ore-crisis-solution-march-2025/.

Scientists Discover Smart Way to Generate Energy With Tiny Plastic Beads
by Free University of Brussels, March 11, 2025

An international team of researchers has discovered a new method to generate electricity using small plastic beads. By placing these beads close together and bringing them into contact, they generate more electricity than usual. This process, known as triboelectrification, is similar to the static electricity produced when rubbing a balloon against hair.

Triboelectric nanogenerators (TENGs) generate electricity through friction between different materials. Typically, this occurs when two distinct materials move against each other. The research now shows that when a surface made up of closely packed small beads comes into contact with another surface containing the same beads, some beads gain a positive charge while others become negatively charged. The

Odds and Ends

SOME SCARY FUTURE TECH

Some people dream of a high tech home that is perfectly catered to them in every way, and finally that is becoming a possibility. There is a danger to this dream however, as smart homes are not always as benevolent as you would hope. All of those digital appliances that are hooked up to the Internet have the capability to collect very personal data concerning your daily habits, and your ISP has the right to sell whatever data it slurps up from those devices.

Car collisions are already the fourth most common cause of death for Americans today, but those numbers could rise as extremist hackers learn how to take control of computerized vehicles. Given more and more cars come equipped with things like Internet and Bluetooth, this could potentially make cars as susceptible to hackers as the average computer. A hacker could carry out an assassination from a distance by taking control of a car and deliberately crashing it.

Drones have been used in countless roles since their surge in popularity, capable of everything from package delivery to advanced military combat. As drone technology gets cheaper and more available to the general population, concerns are rising about the potential for an individual to use autonomous drones to carry out a terror attack on a civilian population.

more efficiently these electric charges transfer, the more electricity is produced.
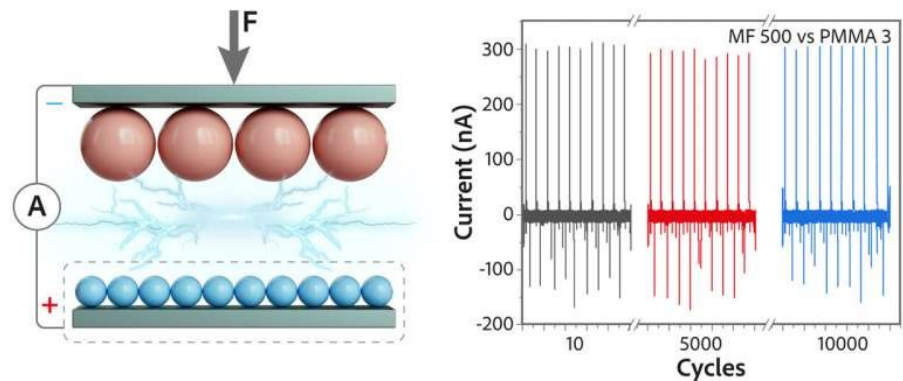
Schematic representation of the working of triboelectric nanogenerator surfaces. Credit: Ignaas Jimidar

Tests with different types of beads reveal that size and material play a crucial role. Larger beads tend to acquire a negative charge, whereas smaller ones are more likely to become positively charged. The most significant effect occurs with melamine-formaldehyde (MF) beads.

Read about this on https://phys.org/news/2025-03-scientists-smart-generate-energy-tiny.html.

Paralyzed Man Moves Robotic Arm With His Thoughts

University of California - San Francisco, March 6, 2025

Researchers at UC San Francisco have enabled a man, who is paralyzed, to control a robotic arm through a device that relays signals from his brain to a computer.

He was able to grasp, move and drop objects just by imagining himself performing the actions.

The device, known as a brain-computer interface (BCI), worked for a record 7 months without needing to be adjusted. Until now, such devices have only worked for a day or two.

The BCI relies on an AI model that can adjust to the small changes that take place in the brain as a person repeats a movement -- or in this case, an imagined movement -- and learns to do it in a more refined way.

"This blending of learning between humans and AI is the next phase for these brain-computer interfaces," said neurologist, Karunesh Ganguly, MD, PhD, a professor of neurology and a member of the UCSF Weill Institute for Neurosciences. "It's what we need to achieve sophisticated, lifelike function."

The study, which was funded by the National Institutes of Health, appears March 6 in *Cell*.

Reported in
https://www.sciencedaily.com/releases/2025/03/250306153135.htm.

CLUB and REGIONAL NEWS

Help's Half Hour   Notes by Jan Rothfuss

Q: In Outlook email an unused email comes up when typing in the requested mail list.
A: It seems like Outlook is trying to 'help' by showing old received mail addresses in the dropdown. It was suggested that he create a new person and be sure that the correct email shows up when that person is selected as a new email choice. Eventually the 'helping' list will show the one that is preferred first in the list.

Q: Someone is getting messages that say that they are attempting to deliver a package and need more information
A:: This is a scam. Delete without responding. If you can, have the system block them so that you will get no more that is even better.

Q: A visitor says that his iPhone does not go to cellular when he is out of network range.
A:: We made sure that he could access the St. John WIFI and he could. We tried to adjust his settings so that, when in his car, his cellular will take over.

Q: A visitor wanted to use her new Chromebook but cannot get it to come up online and asked how to scroll.
A: Bob was able to get her online and knew how to scroll – she was used to a touch screen.

Q: Jean stopped by with questions about her iPhone and her iPad.
A: Jan could not help her on her iPad but did walk her through a few things on her iPhone, including updating the IOS and showing her how to move pictures from her Messages to her phone's photo collection. She also was not sure how to listen to voicemail messages so she now knows how to get those, too.

===
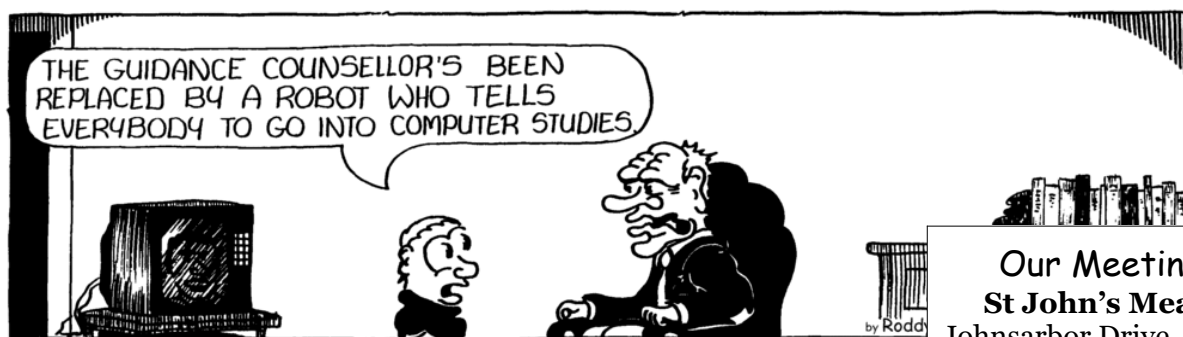
Got Questions?

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 Schmidtmann,   unixgeek@faultline.com

Our Meeting Place
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**.

www.rcsi.org