Our Club

RCSI is a nonprofit 501(c)(3) group open for membership to anyone interested in computers and new technology. 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 September, 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.*

7:00 – 7:15, Club Business

7:15 – 8:30+, Main Presentation

Come and join in the fun and enjoy a snack! **You are welcome to bring a guest**.

Become a Member

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

The Rochester Computer Society, Inc.

a computer/tech club open to everyone

M NIT R

**February 8, 'Beginning Genealogy'
by Sue Mueller via Zoom
March 8, 'Take Control of Your Passwords'
by Joe Kissel via remote location
April 12, TBD**

In This Issue

5 Things that kept people entertained during COVID-19 Lockdown
                              By Jolie Andre, September 2021

   COVID-19 lockdown was a difficult period for everyone. However people started finding innovative ways to keep themselves entertained. Let's have a look at some of those entertaining ways. The world witnessed a series of events in the year 2020. It was no less than a roller coaster ride since the lives of the people have been altered drastically. The outbreak of a global pandemic in the name of COVID-19 has had a significant impact on the social as well as economic life of the people. The government of every nation had taken severe measures to impose a lockdown to stop the spread of the virus. Hence, during this period,

people had resorted to several means to keep themselves entertained while staying in isolation. Some of these means have been discussed as follows.

HOBBIES

The lockdown and the period of social distancing have presented the people ample time to spend time with themselves. The ones who had lost touch with their favourite hobbies, once again started to practise them. Activities like painting, writing, pottery, playing instruments and many more were once again people's favourite. Most of the people started to practise their hobbies and upload their paintings, write ups and videos on various platforms. In other words, people started spending more time with their hobbies as a recreational measure.

MOVIES

Movies work wonders to entertain the masses since ages. Movies were always popular among the people of different age groups; movies of every genre and language have a large audience. Thus, people started to resort to movies in order to eradicate boredom. TV series, too, are highly popular among the people all over the world and have the potential to keep the viewers glued for a long time. These modes of entertainment were highly popular among us during the lockdown. People started investing more time in movies and TV series of every genre to help themselves deal with the stress of social distancing.

SOCIAL MEDIA

Social media play a vital role in our lives in every aspect. Social media can be used for both personal as well as commercial purposes. The lockdown period saw the users investing more time in social media platforms like never before. Popular social media platforms like Facebook, Twitter, Instagram and TikTok gained a large number of new users as well. TikTok enabled the people to post video content and connect with others while promoting social distancing. One kept in touch with his or her friends and relatives using its chat feature facilitated by the social media platform. You can order legit Tiktok views to enhance your account.

YOUTUBE

YouTube is a popular app used by mostly everyone. It allows one to post and watch videos on different subjects. You can create different channels according to your areas of interests and post relative video content for others to watch. The features include subscribing to various channels, writing comments and liking videos. Tutorial videos like those concerning cooking and craftwork are highly popular and can be referred to when required. YouTube has contributed immensely towards the growth of eminent social media influencers. Thus, it served as an important platform for every individual who wanted to get rid of boredom.

GAMING

Gaming is a popular means of entertainment among the youth. A wide range of games have been made in order to help the players have a great time during the gaming session. A large number of games have

come up to cater to the versatile needs of the people, thus, helping them deal with the isolation stress.

In conclusion, the aforementioned points are some of the prominent things that kept the crowd entertained during the Covid-19 pandemic. They helped efficiently in dealing with stress and boredom. Hence , their worth is highly appreciated.

End of Article

8 Tips for Safe Web Browsing and Accessing the Internet
<div align="right">by Dale Harris</div>

Hackers make an attempt at breaking into a system <u>every 39 seconds</u>. The last thing that you would want is for them to make your system the one that they break into.

Safe web browsing is essential if you want to avoid having your personal details and money stolen. Once a hacker has access to your device, they can wreak havoc on your life. But what can you do to ensure you don't fall prey to an attack? Our handy guide to Internet safety will help you.

Here are eight tips for browsing the Internet safely.

1. Keep Your Operating System, Browser, and Plugins Updated

Hackers are always on the hunt for new ways to get into people's computer systems. Whenever a vulnerability is spotted in a browser, plugin, or operating system, an update will be released to prevent hackers from getting in. It is essential that you stay up-to-date with these changes and download any new updates.

2. Block Pop-ups

While most pop-ups are just annoying ads trying to get you to buy something, some can be more malicious. To avoid malicious attempts at getting you to accidentally click on links, install a pop-up blocker.

3. Use Antivirus Software

It should go without saying that to stop viruses and malware attacks, you should have antivirus software installed on your system. There are plenty of different free options available. Here are <u>some suggestions</u>.

4. Use a Firewall

Hackers are trying to get into your system. One of the best ways of stopping them is by having a firewall installed. If your computer has a firewall already installed, make sure it is turned on and is up-to-date.

5. Use Strong Passwords

Whenever you access any website with a password, you should make sure that it is unique. Using strong passwords will mean that they won't be easily guessed. Use a mixture of letters and numbers and change your passwords often.

6. Use Bookmarks

To avoid making a mistake when typing the name of a website that you commonly visit, you should always bookmark your pages. A

bookmarked link will always take you to the right page every time. Consider using a browser that lets you access bookmarks across all devices.

7. Consider Where You're Accessing the Web From

If you're using your device to access the internet in public spaces such as coffee shops and airports, consider the safety of the network that you're connected to. In addition to being cautious of public networks, consider using a safe charging datablocker to protect your device when plugged into a public USB socket.

8. Avoid Clicking Links in Emails

Viruses and malware can be spread via emails easily. All it takes is for you to click a rogue link in an email and your device may become infected. Even if you know who an email is from, you should always regard links as being suspicious.

Safe Web Browsing

Now that you know some of the best tips for safe web browsing, you can protect yourself from attack. Remember to always keep your browser, antivirus, and your operating system up-to-date and avoid clicking on links in emails.

<center># # # End of Article</center>

<center>* * * * * SOFTWARE and HARDWARE * * * * *</center>

Is Cloud Backup Enough?
It's all the rage, but you may want to do more.

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

Cloud backup vs. backing up to an external drive isn't really a debate. Why not both?

Rather than using an external hard drive, what's your opinion and/or advice about backing up to the cloud such as with Carbonite? Wouldn't that be the simplest way? Also, since I have backup discs of my operating system and factory settings, is it necessary to also back up my OS? I'd really rather not trust an external unit, which could be damaged just like my laptop.

Cloud storage is awesome, and I use it heavily. However, to mangle an old advertising slogan: "It's part of a healthy breakfast." Let me emphasize: it's only *a part* of the solution you want.

Cloud backup - enough?

Cloud or online backup can be useful, but has limitations that prevent it from being a pragmatic, complete solution. Instead, use it in conjunction with traditional external hard drive backup to ensure that everything is backed up and available when you need it.

Cloud backup

Honestly, what's right for you depends on what you're attempting to accomplish with your backup. Cloud-based backup — meaning backing up to some kind of online storage or backup service — is fine, as long as you keep three things in mind.

1. Pay attention to what is and is not backed up

Most online backup services back up only some of the information on your computer. This usually means your data files. Most commonly, it means the service will back up only the files it finds in or under "Documents", or perhaps also folders like "Pictures", "Video", and others. That's enough for many people. For others, it's a surprise, because it's not backing up your entire computer; it's only backing up your data.

2. Understand the limits

By its very nature, an online backup uses your Internet connection — perhaps excessively. Exactly how heavily, whether or not it will impact your use of the computer, and how long it all takes depends on two things:

- How much data there is to upload and back up.
- How fast your Internet connection's upload speed is.

The first backup, in particular, can take a long time, since it has to upload everything for the first time. Even incremental backups can still take a long time if your Internet connection is slow and the amount of data to be backed up is large. Sometimes the backups can be so slow as to be pragmatically useless. And there's one particularly important case.

3. Online isn't for image backups

Full image backups are backups of absolutely everything on your computer. I absolutely love and rely on image backups because no matter what happens, everything is backed up. If my hard disk dies completely, I use an image backup to restore to a replacement hard drive, allowing me to carry on from that point. Here's the problem: "everything" means everything, and as a result, image backups are huge.

Image backups are typically too large to be uploaded in any useful time frame. For example, if it takes a day and a half to upload a daily backup, there's no way you'd ever be able to keep up. Your online backups would always be severely out of date and your Internet connection would always be slower than it needs to be, because your backup software would constantly be uploading as fast as it could.

Related

Want a complete recipe using both external drives, online backups, and specific tools? Check out: How to Back Up Windows 10 (& 11)

Why not both?

After you factor in its limitations, online cloud backup can be useful, but it's not enough. My recommendation is simple: use both online and local (external drive) backups, and use them for what they're best at. For

3 SIMPLE STEPS TO DECLUTTER YOUR ANDROID PHONE WITHOUT REGRETS **– Are you getting overloaded with files, apps, and notifications? Here's how to create a clutter-free Android phone.** 3 Simple Steps to Declutter Your Android Phone Without Regrets (makeuseof.com)

YOUR ANDROID PHONE WON'T CHARGE? 7 TIPS AND FIXES TO TRY – Here are a number of fixes to try if your Android phone is not charging. Your Android Phone Won't Charge? 7 Tips and Fixes to Try (makeuseof.com)

HOW TO QUICKLY SET UP LIBREOFFICE WRITER TO RUN LIKE MICROSOFT WORD – One of LibreOffice Writer's best features is that you can customize it. If you're used to Microsoft Word's settings and layout, making LibreOffice Writer look more like Word is a good idea. This guide will teach you how to do that in five easy steps. How to Quickly Set Up LibreOffice Writer to Run Like Microsoft Word (makeuseof.com)

HOW TO ADD OR REMOVE OPTIONAL FEATURES IN WINDOWS 11 – If you feel Windows 11 is a little light on features, learn how to enable a few more here How to Add or Remove Optional Features in Windows 11 (makeuseof.com)

example, perform an image backup to an external drive once a month and an online backup of your data files daily.

My approach: a monthly full image backup, a daily incremental image backup — both to an external drive — and then use online services such as OneDrive and Dropbox to back up my work in progress as it changes throughout the day.

Do this

The most important thing you can do, of course, is back up regularly. It's important to realize that external drives and online backups are different kinds of backup, each with its own pros and cons. You need to make sure that you choose a solution — possibly using both — to achieve a backup strategy you can rely on to be there when (not if) you need it.

End of Article

What is a VPN, and Do I Need One?

By Joel Ewing
President Bella Vista Computer Club

What is a VPN

VPN stands for Virtual Private Network. When your computer or mobile device uses a connection to a VPN service, your device behaves as if it were connected to the Internet at the remote VPN service location, and all your traffic on the Internet appears to others as if it originates at that remote location.

In actuality, the Internet service to which you are physically connected is used to establish a secure encrypted connection to your remote VPN service over the Internet, and while the VPN service connection is active your device is configured to reject any other direct network connections, so all inbound and outbound data flows through that encrypted VPN "tunnel" to the VPN server. The VPN server then establishes the final part of the path to the data's intended destination. Data that needs to be returned to your device flows over the Internet to the VPN server and then passes hidden over the VPN tunnel back to your device.
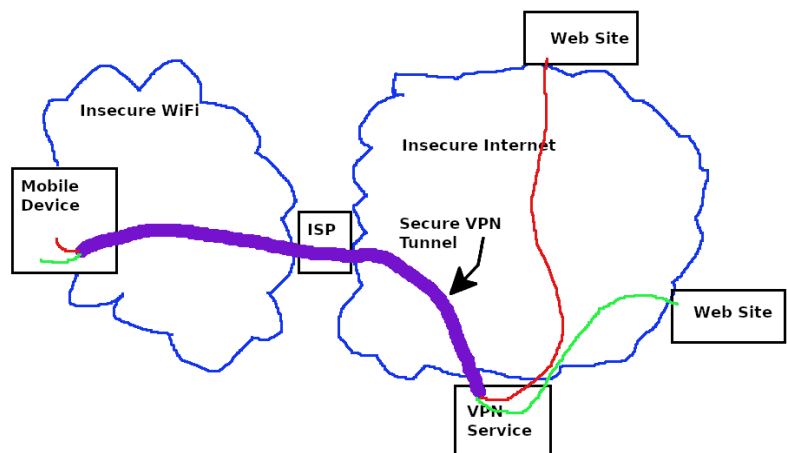
The logical behavior from the viewpoint of your device is as if your device were directly connected to the Internet through an Ethernet cable at the

Scam Alerts

These are actual text messages sent to my cell phone. They are getting better and are sometimes using my name instead of generic names.

(602) 413-1623
the state owes you $7374. Claim it by January 1st, 2022. emphasisindies.com/GlhZ….

(947) 465-5758
Hey sorry to keep messaging you, but we only have 8 Brain Pill Samples left balloonhousing.com/ymgja….
- Prevent Dementia
- Increase IQ in minutes
- Increase focus and concentration
- Boost memory by 325%
    [and the claims continue]

(702) 595-4051
Hey, My Father lost both his feet to Type-2. If I didnt act sooner, I was NEXT. These miracle CBD Gummies dropped my blood-sugar from 256 to 109 – fast. Get Yours FREE Right Now remainoperate.com/eiMUO….

(812) 201-1438
CashAPP notification you have a payment of $750 from Lauren. Please accept your transaction regardmartial.com/AIEbl….

(406) 491-0733
Late Payment Notification. Your package could not be delivered due to an outstanding payment of $1.65. Complete registration form asap to receive your shipment thoughtpuff.com/JQTHy….
[**Be careful**. The amount is small and might entice some people to bite, but once the thief has your card or bank info…].

remote VPN server location. Your device is even assigned a LAN IP address on the remote site LAN. Thus, others on the Local Area Network to which your device has physical attachment will be unable to establish connections in or out to your device while the VPN connection is active, and anyone seeing your data traffic either on your physical LAN or as it passes through any routers and the associated Internet Service Provider, will only see that you are communicating with your VPN service and be unable to read the encrypted data content. Note that if you communicate insecurely with some website (like http vs. https), your communications will still be vulnerable on the Internet between the VPN Service and the destination website.

Reason for Using a VPN

Businesses that allow employees to work from remote locations may host their own VPN service to allow employees to access corporate network resources securely from a remote location. However, suitable restrictions and conventions must be in place to ensure that devices that are not under direct corporate control that connect to the corporate network through VPN are suitably protected so they can't introduce malware into the corporate network.

People who do not use a corporate VPN service to work remotely should use a VPN service, not to access resources in the remote network, but to use the remote network merely as a gateway to connect back to the Internet.

Suppose you choose to utilize insecure public WiFi connections with your devices, then by default. In that case, anyone else connected to that same WiFi LAN could potentially observe your data traffic, see what Internet sites you are contacting, and observe any unencrypted data coming from or to your device. In addition, if the WiFi network is compromised or misconfigured and there are any security flaws in your device vulnerable to network attacks, your device could also become compromised by malware. The use of a VPN greatly reduces the risks. Suppose your device immediately enters VPN mode upon connecting to a public WiFi. In that case, attacks from other devices on the same local network are blocked. The most someone else will be able to observe locally about your activity is that you are communicating with and sending unknown data to some specific VPN server.

Suppose you are planning on traveling to a foreign country. In that case, you will probably discover that your email services block direct access from a foreign country to reduce spam abuse and that your favorite streaming services have region-specific content restrictions. If you have a VPN Service, you can circumvent those problems by using a VPN server in this country to make it appear you are still in-country, so normal email and streaming services still work. If you have a legitimate need to access foreign-only content, or perhaps a need to verify that some service is indeed blocked in a foreign county, you can deliberately choose to connect to one of the servers your VPN service provides that is located in a foreign country.

If you are accessing the Internet in a country under an authoritarian government that regards visiting some Internet sites as unacceptable, a VPN service could be part of a means to disguise unacceptable behavior; but under those circumstances, more than just a VPN may be required,

Interesting Internet Finds

By Steve Costello
scostello@sefcug.com

Nearby Share On Android: All You Need To Know
https://joyofandroid.com/nearby-share-on-android/

If you are an Android user and want to know about *Nearby Share*, check out this post. I don't use it myself, but not because of anything in the post.

How To Find Your Public & Local IP Address (Windows & Mac)
https://techviral.net/find-your-ip-address/

There are times you might need to know your IP address. This post explains the difference between public and local IP addresses. This post will also show you how to find your IP address should you need to. I suggest keeping this available somewhere you can find it if you need to know your IP address for some reason.

Just What Is A Hack?
https://askleo.com/just-what-is-a-hack/

If you have been around computers for a while, I am sure you have heard about hacking. Do you know just what a hack is? Did you know there are good and bad hacks? Do you want to know more about hacks? Check out this post from Leo Notenboom to learn about hacks.

7 Tips For Keeping Your Digital Photos Secure On Vacation
https://www.makeuseof.com/tag/tips-digital-photos-secure-vacation/

It is vacation time again. If you are like me, you take a lot of digital photos. Check out this post to learn how to keep them secure while you are on vacation.

as any obvious use of a VPN service could by itself be regarded as an intent to violate restrictions.

Available VPN Services

A search for "VPN services" will locate the most popular services. You may even locate some free services, but I would not be inclined to trust them. Remember that whoever is running the VPN service is the one who CAN observe all the Internet sites you are connecting to and any data you might send in an unencrypted form, and they have to fund their service somehow. That would have to be either by data mining for advertisers or restricting service in some way to encourage you to move to a paid plan.

Avast is currently providing Avast SecureLine VPN service at an introductory rate of $3.99 / month or $47.88 for the first year (it looks like their regular price is $89.99/year). Their service supports Windows, Mac, Android, and iOS devices on five devices concurrently.

NordVPN is a top-rated service, currently available for the 2-year introductory offer of $3.71/month, $89.00 /2-years. Their regular price appears to be $143.40 / year, which makes them much pricier down the road, but NordVPN also supports Linux operating systems and allows use on up to 6 devices concurrently.

Unlike an email service or an ISP service, which are a pain to change, changing a VPN service should be simple -- no identity change to communicate to others. Perhaps the best strategy is to use one VPN service provider until their introductory rate expires and then shop for the best offer available at that time.

Reprinted from www.bvcomputerclub.org, presiden@bvcomputerclub.org.

Helpful Memory Bytes

By Jim Cerny, Forums Coordinator / Instructor
Sarasota Technology Users Group

Flash drive

External Hard drive

Internal Hard drive

Let's review and explore what we need to know about basic computer storage (bits and bytes) and how it helps us get an idea of the data space needed to save and back up our stuff.

Suppose you landed on a planet, and the aliens there only had one hand and one finger on it (not ten fingers like we do). All they could do was flash a single digit or none at all (hence, a zero or one). How high could they count? Could they do basic math?

All computers use the binary system (a single digit of 1 or 0) – that is, they store and work with data saved in memory as zeros and ones. But there is NO LIMIT to how high you can count – you keep adding on more zeros and ones. For example, the digits we know in our numbering system such as 1, 2, 3, 4, 5, 6, 7, 8, 15, 16, 31, 32, 33, etc. would be the following in binary = 1, 10, 11, 100, 101, 110, 111, 1000, 1111, 10000, 11111, 100000, 100001, etc. So, adding a new digit to the

Around the World

Habitat and biodiversity loss

Despite the Asian elephant being endangered, they are still treated unethically in some situations. In an ideal world, all animals would be able to live in their natural habitats. However, we understand that some animal facilities play an important role in conservation. This is why GVI (www.gviusa.com) supports an ethical elephant sanctuary in Thailand where these animals can be protected in their forest habitat.

And forests are key to producing the air we breathe, yet between 2015 and 2020, the rate of deforestation was approximately 10 million hectares of forests per year.

Extinctions are happening at alarmingly fast rates. Not only are we losing flora and fauna, we are also damaging our ecosystems, and throwing them out of balance – the effects of which we cannot anticipate due to the intricate and complex nature of these systems.

Many organizations have been working to protect local ecosystems for years. This includes the UN, which has set up specific objectives under UN SDG 15: Life on Land.

You can join us at GVI as we further these objectives, through volunteering on one of our wildlife conservation programs. On each of these programs, you'll gather data, which will help to inform local wildlife park or sanctuary managers.

left doubles the size of the memory (or number). Believe it or not, math gets a lot simpler with only two digits.

A single binary digit is called a BIT. Eight bits together form a BYTE of data. Eight bits allow for 256 different combinations, enough to cover not only our 26-character alphabet, but special characters and more. Every keystroke on your keyboard enters one byte into memory!

I love the old science fiction movies – where the spacecraft command center was filled with gauges and dials! To read a value on a dial, you had to look closely to see where the arrow was. It showed measurement on a scale of lines, and it was up to you and your eyesight to see the amount or "reading." But with binary digits, you don't care about "how much"; you only need to know if it is there or not there -- a one or a zero. To get more accuracy, you add more binary digits. So, you will need a lot of them, but they are cheap and much easier for use in electronics.

One KILO-byte of memory is 1024 bytes, but when we start dealing with large amounts of computer storage, we round it off and call it a thousand.

One MEGA-byte of data is one million bytes or one thousand kilobytes. Those old 3.5-inch computer disks (remember them?) held about one and a half megabytes or about 220 pages of text. A CD-ROM (computer disk) could hold about 700 megabytes, that's over 400 of those old floppy disks and approximately 90,000 pages of text. It is good to remember that photos, depending upon the number of pixels in them, can be from 10 or 20 kilobytes up to 2, 12, 24, or more megabytes each! So, is a picture worth a thousand words? You bet, and more!

One GIGA-byte is one billion bytes or one-thousand megabytes. Now we are talking serious (and very inexpensive) memory! You can buy a small portable USB drive (called a "thumb" drive or "flash" drive) in various gigabyte sizes – I tend to like the 32 or 64-gigabyte size because it can easily hold all my photos and documents as my backup. Just one gigabyte can hold almost 700,000 pages of text. That's a den full of books. One HD (high-definition) movie can take 2 to 5 gigabytes of memory. Movies and videos are moving pictures, of course, several pictures (or "frames") per second. Fortunately, the data used to store photos and movies are "compressed" or coded to take up much less space than you would expect.

One TERA-byte is one thousand gigabytes. For us ordinary people, this is a HUGE amount of memory! You can get a one-terabyte drive for about $50. It can hold 300,000 photos or about 500 hours of movies. And, unlike my memory, it will never forget anything.

The next memory size up is the PETA-byte -- yup, one-thousand terabytes! And, no, they are not going to run out of prefixes. All just to store ones and zeros.

I use a nice little thumb drive to back up my memory, but I seem to forget where I put it!

From the www.thestug.org, vp1@thestug.org.

Some Rodney Dangerfield Wife Jokes

What a kid I got, I told him about the birds and the bees and he told me about the butcher and my wife.

I haven't spoken to my wife in years. I didn't want to interrupt her.

My wife and I were happy for twenty years. Then we met.

My wife's cooking is so bad the flies fix our screens.

I told my wife the truth. I told her I was seeing a psychiatrist. Then she told me the truth: that she was seeing a psychiatrist, two plumbers, and a bartender.

My wife had her driver's test the other day. She got 8 out of 10. The other 2 guys jumped clear.

My wife's not too smart. I told her our kids were spoiled. She said, "all kids smell that way".

With my wife I don't get no respect. I made a toast on her birthday to 'the best woman a man ever had.' The waiter joined me.

I tell ya, my wife was never nice. On our first date, I asked her if I could give her a goodnight kiss on the cheek – she bent over!

My wife made me join her bridge club. I jump next Tuesday.

It's tough to stay married. My wife says no because she's tired, then stays up and reads her book.

My wife is a great driver, she once hit a deer. It was in a zoo.

---

* * * * * 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 web version of this newsletter.

BlackBerry Shuts Down Services for Legacy Phones Today

By Ryan Whitwam on January 4, 2022

It's over. I f you try to start up your aging BlackBerry smartphone today, it'll fail to work as it always has in the past. BlackBerry, formerly known as RIM, is sticking with the timeline announced in 2020 to shut off services for BlackBerry OS, marking the end of an era in mobile technology.

BlackBerry was once the king of "smartphones" in the days before Apple redefined what people expected from a mobile device. The company's superb physical keyboards, messaging, and connectivity were all considered the gold standard, but BlackBerry was also bloated and slow to change. It mocked the iPhone as a toy, but a year later it released one of several touchscreen phones called the Storm. It missed the point, utterly failing to compete against the iPhone, thus beginning BlackBerry's long slide into smartphone irrelevance.

One of the major issues holding BlackBerry back was the centralized nature of its products. The iPhone had a full web browser and connected to the same internet as computers did, but BlackBerry pushed everything through custom server infrastructure. That's what carriers wanted back then, but Apple changed the game.

Any hope BlackBerry had to salvage a second-place finish was dashed to ribbons by Google. Android took off in 2009 and 2010 by leaning on carrier partnerships, which used to be BlackBerry's bread and butter. By the time BlackBerry was able to modernize its software with BBOS 10, it was too late. It tried to make a few of its own Android phones like the Priv, but the project was quickly canceled.

Taken from the website https://www.extremetech.com/mobile/330216-blackberry-shuts-down-services-for-legacy-phones-today.

Odds and Ends

Wristband to Detect Strokes   October, 2021

[Alva Health](#), a medtech startup based in Connecticut, is developing a wristband that can detect the signs of stroke and promptly alert the wearer and/or healthcare staff. The technology is intended for those at high risk of stroke, such as stroke survivors and those diagnosed with transient ischemic attack.

Strokes cause a huge level of patient morbidity every year, with many suffering debilitating symptoms that are life changing. Early diagnosis and prompt treatment are very important, but in many cases the early symptoms of a stroke are subtle and are easily missed. These issues have inspired this startup to develop a stroke monitor for high-risk patients.

The system consists of a wrist band that looks for signs of paralysis on one side of the body, a hallmark of stroke. The company was recently announced as the winner of the [MedTech Innovator](#) 2021 $350,000 global grand prize for their innovation.

Continue reading at https://www.medgadget.com/2021/10/wristband-to-detect-strokes-interview-with-sandra-saldana-ceo-of-alva-health.html.

Novel Artificial "Xenobots" Replicate In a Never-Before-Seen Way

[byModern Sciences Team](#), December 15, 2021

Some of you may be old enough to remember *Pac-Man*, which was a famous arcade game that featured the tiny, yellow titular character that gobbled up ghosts whenever they snacked on some cherries or other fruits. Now, imagine if Pac-Man was made of living frog cells, and managed to get himself some children and grandchildren through a pretty radical way of cell reproduction. That's precisely what a recent study published in the *[Proceedings of the National Academy of Sciences](#)* claimed to have just done—down to even the video game character's shape.
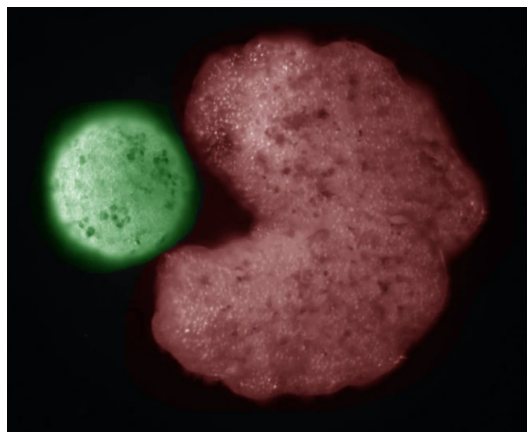
The effort was spearheaded by Sam Kriegman, from Harvard University's Wyss Institute for Biologically-Inspired Engineering (WIBE). Together with a team from Harvard, the University of Vermont (UVM), and Tufts University (TU), Kriegman crafted artificial "*Xenobots*" from cells harvested from the African clawed frog (*Xenopus laevis*)—and they did it with the help of supercomputers and artificial intelligence.

These "Xenobots" actually made headlines last year (2020) for being the "first living robots," with the authors referring to them as "living, programmable [organisms]". The previous study was also [published in the same journal as this one](#), just nearly two years prior.

Said Kriegman: "We asked the supercomputer at UVM to figure out how to adjust the shape of the initial parents, and the AI came up with some strange designs after months of chugging away, including one that resembled Pac-Man. We sent the results to Doug [Blackiston] (co-author), and he built these Pac-Man-shaped parent xenobots. Then those parents built children, who built grandchildren, who built great-grandchildren, who built great-great-grandchildren."

Continue reading and watch the videos at https://modernsciences.org/novel-artificial-xenobots-replicate-in-a-never-before-seen-way/.

* * * * * CLUB and REGIONAL NEWS * * * * *

RCSI

The **planning meetings are held online** the first Tuesday of each month, at 7:00 pm and are open to any member. We use Jitsi, and a link will be emailed to members before our next planning meeting. *Save the link, as we will reuse it next month*. ANY CLUB MEMBER MAY ATTEND and voice their opinions about club operations.

Multiple RIT Scientists Contribute to the Newest Space Telescope

by Luke Auburn, December 16, 2021

RIT leading largest General Observer program in James Webb Space Telescope's first year

The James Webb Space Telescope (JWST) will mark the culmination of nearly 30 years of development on the most powerful observational instrument ever made. Numerous members of Rochester Institute of Technology's College of Science have been involved in its creation or will work on projects once it becomes operational.

Associate Professor Jeyhan Kartaltepe from RIT's School of Physics and Astronomy will be among the first to use the telescope. She is principal investigator of the COSMOS-Web program, the largest General Observer program selected for JWST's first year.

JWST will spend about six months traveling to its destination 1.5 million kilometers from Earth, unfolding its sunshield and mirrors, and undergoing science and calibration testing before it begins regular science operations and programs, including COSMOS-Web, can begin collecting data.

The COSMOS-Web program aims to map the earliest structures of the universe through an ambitious survey of half a million galaxies with multi-band, high-resolution near infrared imaging and an unprecedented 32,000 galaxies in mid infrared.

Read it all at https://www.rit.edu/news/multiple-rit-scientists-contribute-newest-space-telescope.

The *Monitor* is published monthly by members of RCSI. Articles by our members may be reprinted by other user groups or nonprofits, without special permission. A courtesy copy may be emailed to the author or Monitor editor.

Finger Lakes FIRST Robotics

March Wed 9 – Sat 12, 2022

Regional Competition, between schools (Jr & Sr high students)
Rochester Institute of Technology, Gordon Field House
149 Lomb Memorial Drive, Rochester, NY 14623 USA
https://www.firstinspires.org/team-event-search/event?id=56210
Additional Event Info: http://upstatenyfirst.org/
So far, there are teams from several states registered.
In the past, a few countries sent teams here to compete.

New Meeting Place

Our Usual Meeting Place is being renovated.
St John's Meadows at Johnsarbor Drive, is on the left, past Clinton Avenue, when going West on Elmwood Avenue. The opening in the white fence is Johnsarbor Drive. At the 'T', turn right. The meeting is in the SECOND building on the left – **Chestnut Court**.
Our meeting place can change. Please check our website before each meeting. **www.rcsi.org**

LINUX SIG

After nearly 15 years of running the Linux SIG, Carl has decided to retire this venture. Over the years, the SIG has met in various locations around the city, including Micrecycle on Humbolt Street, College Avenue, Rochester Hackerspace and Gates Library. Those who attended the SIG were able to bring their computer system in and get expert help from several Linux gurus and have their questions about Linux and FOSS (free and open source software) answered.

Due to Covid, the SIG started meeting online. Carl sent out a link last year to try an online meeting, using Jitsi. You could not bring your machine in, but you could still ask questions and share screens during the meeting. Anyone attending online could help answer questions. Like most other online meetings, people got burned out and attendance dropped. Carl feels this is the right time to end the SIG. THANKS, CARL FOR HELPING TO PROMOTE LINUX ALL THESE YEARS.