

Our Club

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

Program Meetings

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

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

7:00 – 7:15, Club Business

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

Become a Member

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

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



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**April 11, 'Newest Nanobots', Tony Dellelo
'Is Using the Cloud Safe?'**

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

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

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Is Your Life Boring? Spice it Up By Becoming a Victim of Scammers and Thieves!

By Kurt Jefferson, Editor
Central Kentucky Computer Society

If you're bored to tears, why not put more excitement into your life by becoming a victim?

Follow the tips below, and you're sure to find yourself quite busy as you try and dig yourself out of trouble. But at least you won't be bored!

Write your PIN number on the back of your ATM and credit card! How else are you supposed to remember that vital number to tap into your finances?



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

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

Some Past Presentations:

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

Why waste time by shredding documents? Just toss those financial statements, online credit card notices you printed, and your retirement account papers into the green bin. I mean, it's filled with cat litter, coffee grounds, and tea bags. Who would dig into your garbage to retrieve a few slimy documents?

Don't be stingy when someone using an unrecognizable phone number calls you and asks for a donation! Instead, make sure you open your heart by making sure the person on the other end has correctly typed your credit card number. It's a good cause, and you're helping out in a big way. I mean, doesn't it feel good to share your credit card number with the \$20,000 account limit to a charity you've never heard of before? Sure! You're a big sweetheart.

Why in the world would you waste your time by bothering to monitor your banking account online? Jeeze. The sun is shining. Go outside and have fun! No need to bother yourself with numbers on a website or an app. Even though there might be a few purchases you can't identify - heck - it's no big deal! No reason to contact the bank and speak to that helpful customer service rep that you cannot understand, anyway.

Sarcasm is a powerful tool to get across a message. We've been using it throughout this article to get your attention. Now that you're reading this —

What's currently the leading cause of financial loss by fraud? Romance scams. There's big money being lost here by thieves targeting the lonely.

In 2020, more Americans of all ages lost more money through romance scams than any other means. Wow. That is an eye-opener! Talk about the way to rob someone in the 21st century. In 2020, victims of romance scams lost \$304 million – and people 70 and older had more money stolen that way – on average, \$9,475 – than any other age group. Whew!

Here's how it's done. First, the scammer creates a fake profile on social media or dating sites and tries to start a relationship through texting or chatting. Romance scammers usually make one excuse after another why they cannot meet their victim, um, "loved one," in person. For example, romance scammers often ask their "loved ones" for money by requesting gift cards. But instead, they never share their real photos, opting for faked headshots cropped from Instagram, Facebook, or even models displayed on websites.

Don't be gullible. Don't become a victim. Be smart. Be aware. Be vigilant.

Reprinted from <https://ckcs.org/>, lextown2@gmail.com.

Backup

By Dick Maybach
Brookdale Computer User Group

Life is constantly changing, meaning we should occasionally review our habits to see if they are still appropriate, and this is true for PC backups. So let's take a high-level look at the subject. Your situation is undoubtedly different from mine, and your approaches will most likely differ.

APCUG, An International
Association of Technology and
Computer User Groups

<https://apcug2.org/>

Saturday Safaris

Exploring Technology in Depth

Saturdays:

12 pm – 2 pm EST

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

Tech for Seniors

<https://www.techforseniors.com>

hosted by Ron Brown
and Hewie Poplock

Every Monday from 9-10 AM PT,
(12-1 PM ET)

Broadcast with Zoom

The meeting ID is **526-610-331**

(there is no password) and you'll be
placed in a waiting room and then
admitted.

#

APCUG Website Help

Windows & Android Tips:

<https://apcug2.org/jerestips/>

Apple Tech Tips:

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

Penguin Platform (Linux):

<https://apcug2.org/penguin-platform/>

Chromebook Tips And Tricks:

<https://apcug2.org/chromebook-tips-and-tricks/>

Two basic backup techniques are copying the entire disk (cloning) and file-by-file. Cloning saves both your software and your data but requires that your backup medium be at least as large as your disk. In addition, there may be complications if you restore to a different PC, as old software may not be compatible with its new home. On the other hand, file-by-file backups can be updated far faster because only changes are saved. You can also do partial restores, replacing only corrupted files or restoring only missing ones. However, a complete restore of a file-by-file backup is slower (perhaps significantly so) than a restore of a clone because the data is scattered throughout the backup medium.

Full disk backups protect against disk failure, software malfunction, and malware, as a restore returns the disk to its state when you backed it up. Of course, this means you lose any changes you've made since then. It's less satisfactory if you want to restore to a new PC. Most users buy PCs with an installed operating system (OS) with an OEM (original equipment manufacturer) license valid only for that machine. When you copy the entire disk contents to a new one, it now has an OS whose license isn't valid.

Further, the software is configured for the old PC. All is not lost, however, as you may be able to mount the backup disk on your new PC and copy just the data you need from it. Be sure to test this before you need to do it, as there are possible complications, for example, if your hard disk is encrypted. When moving to a new PC, you'll probably want to retain the OS and any applications you bought with it and install your other applications from their installation media.

File-by-file backups allow you to save just your data and thus will enable you to move it to a new PC, but you must be careful. For example, Windows users should back up the entire contents of **C:\Users** and Linux users the entire contents of **/home**. Be sure you get everything, as many important items are hidden.

Consider using both strategies, clone the disk after upgrading old software or installing new, and make frequent file-by-file backups to preserve your data.

The Terabyte capacities of modern hard disks leave you only two choices of backup medium, hard disks and the cloud. (Resist the temptation to back up to a separate partition of your system disk, as a disk failure will affect your system and your backup.) For example, backing up a 3-Terabyte disk to the cloud, assuming an upload rate of 3-Megabytes per second, would require close to 100 hours. However, I see rates around 100 Mbytes/second when writing to USB-3 external disks, meaning a 3-Tbyte disk backup would need a more reasonable three hours.

Your backup software can limit your choices for your next PC. For example, I use Back in Time, available only for Linux, and the backup disk is formatted as ext4. If considering changing operating systems, use different backup software and a different disk format.

Currently, USB is the most common interface for external disks. Using something else increases the risk that a new PC may not have the same interface or replacement drives may become unavailable.

Backup disks can be either internal drive or external. An internal drive is always available, making it suitable for scheduled backups. However, a serious PC problem, for example, overheating or a power

RCSI Board Members

President:

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

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jerry@jerryseward.com

Members-At-Large:

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Webmaster

webmaster@rcsi.org, 9/23

Jan Rothfuss 347-6020
Membership & Help's Half Hour
jan_rothfuss@hotmail.com, 9/22

Tony Dellelo 734-6149
Programs & Monitor editor
tonydel@techie.com, 9/24

Planning Meeting

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

Got Questions?:

Windows: Arpad Kovacs
podcomputer@gmail.com

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

Monitor Newsletter

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

Club Mailing Address

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

surge could damage both the PC and your backups. An external drive, especially if connected to the PC only when in use, makes it more likely to survive a PC mishap. Leaving a USB drive always connected makes it function as an internal one and can support scheduled backups. Also, it's less likely to be damaged by a catastrophic PC failure.

What do you back up, and on what schedule? I use open-source software, and I prefer to install software from current distribution media rather than from a backup if there is a problem. This ensures the software is up to date and free from the inevitable configuration problems that seem to accumulate over the years. This solution is less desirable with proprietary software, where you would have to reinstall from the original installation media (or the recovery disks) and then do all the updating. A better solution here is to clone your disk when you install a new program or perform a significant upgrade. Then make file backups of only your home directory.

I've found that backup programs do a poor job of error reporting. Even experienced PC users are sometimes surprised to find their backups have failed without warning. Frequently check the backup program logs. I have one scheduled every Tuesday, and once found that my medium had failed three weeks before, meaning the last three backups had failed. If you make file-by-file backups, occasionally check the process by restoring one or a few, preferably to a different location, so that you can compare the originals with the backup versions.

You can streamline your backups by organizing the file system on your PC. For example, you can create an archive area where you keep old, seldom-accessed files. If you move files to it only once a year, you need back it up only once a year. As a result, your other backups will be faster and smaller. Of course, we all should delete far more old, obsolete files than we do, but an archive accomplishes almost as much and involves less agony.

The recovery process depends on the damage. An operator error or disk failure usually involves just restoring from a backup. This can require recovering a complete copy of your disk, which I've had to do after mistakenly restarting Windows during an update. As I noted above, PC failure is more troublesome if you use proprietary software. The safe course is to use the OS you bought with the PC, restore your home directory from your last file backup, and reinstall the installation media software whose licenses permit such things.

I prefer to keep at least one backup offline that is disconnected from the PC, making it safe from even a catastrophic power surge. Once a week, I back up my home directory automatically to an internal drive; and once a month, I back up to an external one. The large capacities of our hard disks mean that our backups are most likely stored near our PCs, where they could be damaged by catastrophic events, such as a house fire or flood. While these are unlikely, they happen, and taking special precautions with your valuable data, such as passwords, key financial records, and contacts, is worthwhile. In my case, these occupy less than 20 Mbytes and are easily stored on a USB memory stick or a cell phone. Because these are sensitive data, they should reside in an encrypted volume. Memory sticks are so small that asking a friend or relative to keep one for you is reasonable.

Tidbits of probably useless information

While we assume that all oranges are orange in color because of their name, the fruit is often green when ripe, thanks to plenty of chlorophyll. In South America and other tropical locales, oranges are green year round. But in the U.S., where it's colder, oranges lose their chlorophyll and take on the color that matches their name. And because North American shoppers are [used to oranges](#) that are actually orange, imported fruit is either exposed to ethylene gas or shocked with cold water in order to remove the chlorophyll.

Playing electronic dance music (EDM) could be just what you need to scare away those [pesky mosquitoes](#) in the summer. According to one 2019 study published in the journal *Acta Topica*, the **Skrillex** song "Scary Monsters and Nice Sprites" combines "very high and very low frequencies" as well as "excessive loudness and constantly escalating pitch" that discourages the yellow fever mosquito from biting victims and mating.

You probably know your fair share of men who sport some sort of facial hair. But if you suffer from [pogonophobia](#)—the fear of beards—then you'd rather avoid them. And it turns out, [this fear could be justified](#): A 2018 study published in the journal *European Radiology* suggests that beards contain "significantly higher" amounts of bacteria than dogs do.

When you think about your needs, you will likely decide to use more than one backup technique. After all, there is more than one risk.

From the newsletter of www.bcug.com, n2nd@att.net.

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

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

"Default" apps or programs in Windows

By Jim Cerny, Vice President
Education Chair, and Forums Coordinator

Most of us know what "default" means when talking about computers or technology. But in case you forgot, "default" means: "This is what you get until you change it to something else."

Computer technology is full of defaults (you may have also heard the term "default settings"). The best way to understand this concept is to use an example. Suppose you are writing a document using Microsoft Word (or some other word processor app); you can start typing words in your document immediately without selecting the FONT or FONT SIZE first. That's because the app has a default font setting (such as "Times New Roman" in the font box and "12" in the font size box). Yes, you can go to those boxes and pick any other font size you want, but the app already starts with something in the box. That's the default. Other examples in everyday life are thermometers using Fahrenheit, but you can change it to Centigrade, or your speedometer from miles-per-hour to kilometers-per-hour. If you don't like the default setting, change it to something else.

Let's go one step further and discuss using that essential Windows app called "File Explorer." With file explorer, you can find any file on your computer. And when you find the file you want, you can OPEN that file by double-clicking on the file name. Of course, there are many different types of files – photo files, document files, spreadsheet files, and many more. So, when you double-click on a file name in Microsoft File Explorer, Windows uses the DEFAULT app to open that file. Let's take a

Windows & Android Tips

Judy Tylour

SPEC SHOWDOWN: THE ORIGINAL IBM 5150 VS.

TODAY'S PCS – Just for kicks, let's compare the specs of the 1981-vintage computer that inspired the birth of PC Magazine to some modern-day desktops.

[Spec Showdown: The Original IBM 5150 vs. Today's PCs | PCMag](#)

HOW TO FACTORY RESET WINDOWS 11 REMOVING EVERYTHING

– If you plan to get rid of your computer or have to fix problems, the “Reset this PC” feature with the remove everything option can help, and here's how. [How to factory reset Windows 11 removing everything – Pureinfotech](#)

HOW TO DISABLE STARTUP APPS ON WINDOWS 11

– [Here are four ways to prevent apps from running automatically on startup on Windows 11. How to disable startup apps on Windows 11 – Pureinfotech](#)

SHIELD YOUR INTERNET HISTORY: HOW TO CLEAR YOUR CACHE ON ANY BROWSER

– Don't let your internet history fall into the wrong hands. It's a good idea to delete your browser history and internet cache on occasion. Here's how to do it on the desktop and mobile. [Shield Your Internet History: How to Clear Your Cache on Any Browser | PCMag](#)

photo file as an example. In File Explorer, if I double-click on a photo file (a file type of “.jpg”), it will open the photo in the Windows Photo Viewer app, and I can see the photo. But if I want to open that photo in a different app, say the Windows Paint app, I have to open that app first and use the app to open the photo file.

It turns out that your Windows computer already has selected specific apps for many file types to use as the default apps. And it's no surprise that your default apps are Windows or Microsoft apps.

Here is one more example. If you click on a web page link, your computer will open and use the default web browser to go to that web page, probably Microsoft Edge. But you can change your default web browser to Google Chrome, Safari, Firefox, or any other browser you want. To do this, click on the Windows start button in the far bottom left corner of your desktop, type in “Default apps” in the search results, select “Default apps,” and then click on the Web browser to see a list of the web browser apps you have and click on the one you want as your new default browser.

This is how to change ANY default app on your computer to a different one. You can also get to the “default apps” area through your computer “settings” or “control panel.” In addition, you can change the default app used for different file types. It is not difficult to do this. For example, to learn how to use Google search on the Internet, enter “How do I change my default app for .jpg file types” or anything else.

The benefit of knowing about default apps is that you will understand why a specific app is used when you click on something to open it. This also explains the question you sometimes get “Select the app you want to use to open this file,” which could mean you may not have an app that can open it. The best way to make sure you use the specific app to open a file is to open the app first and use the app to select the file.

Unfortunately, the default is not the de-fault of your computer!

From the newsletter of the Sarasota Technology Users Group,
<https://thestug.org/> , jimcerny123@gmail.com.

Yuri's Night

<https://yurisnight.net>

Launching parties around the world every year on or around April 12th, in commemoration of Yuri Gagarin becoming the first human to venture into space on April 12, 1961, and the inaugural launch of the first Space Shuttle on April 12, 1981. We use space to bring the world together, to empower the greatest parts of who we are, and give vision to where we are going.

Each year, Yuri's Night is celebrated online and around the world. Can't find a party near you? Host your own! Yes, Rochester has one.

Galactic Get Down: A Yuri's Night Celebration, at the RMSC (Rochester Museum and Science Center), Saturday April 15, 6:30-10:30pm (VIP begins at 6:00pm). Come join the giant space party celebrated around the world!

This is a 21 and older event, and will include a bar, DJ and food. Must have proof of ID at the door.

For more info, <https://rmsc.org/events/yuris-night/>

Scams

When [student loan forgiveness](#) applications opened in 2022, the FBI warned borrowers to watch out for scams targeting applicants. Student loan forgiveness scammers may contact you via phone or create phony application sites aimed at stealing your [Social Security number](#) or your [bank account information](#). They may put pressure on their victims with fake urgent messages that encourage you to apply for debt relief before it's too late. Then they'll charge you a hefty application fee. In reality, it's a scam.

It costs nothing to apply for student loan forgiveness, so anyone who asks you to pay a fee is committing fraud. In addition, the U.S. Department of Education won't contact you by phone. You can stay safe and avoid student loan forgiveness scams by going directly to the [Department of Education website](#) for information about applying for forgiveness.

SIM swapping happens when a thief steals your number and assigns it to a new SIM card in a phone they control. It's the same process you go through when you get a new phone and the mobile carrier gives you a new SIM card. The scammer uses your SIM card to steal your information to log in to your accounts and either enter a verification code or reset the account password using the code or link sent to the phone.

You might be able to contact your mobile phone operator and add extra security or temporarily freeze number porting to help protect yourself from SIM swapping. Also, see if your accounts let you use a non-SMS [multifactor authentication](#) option, in which you provide two pieces of proof to verify your identity.

Free Online College Courses

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

What's the deal with online college courses... how can they be offered for free? Is there some catch involved, and will I get actual college credit if I take free online college classes?

Take College Courses Online

Everyone knows that college is not cheap. But did you know that some college courses are free, online? Some of the most prestigious universities in the world offer thousands of courses free of charge to qualifying students, or to anyone with a Web browser.

- [Massachusetts Institute of Technology \(MIT\)](#) - offers more than 1,800 courses through its OpenCourseWare project. These courses are offered in text, video, and audio formats and are even translated into a number of languages. Students from all over the world use OpenCourseWare, and 96 per cent of them say they would recommend it.
- [Open University](#) is based in the United Kingdom. Through its OpenLearn program it provides undergraduate and graduate level courses to everyone free of charge. Topics include the arts, history, business, education, IT and computing, mathematics and statistics, science, health and technology.
- [Carnegie Mellon University](#) has its Open Learning Initiative providing informal instruction to college-ready students at no cost. Subjects you can study here include but are not limited to statistics, biology, chemistry, economics, French, and physics.
- [Tufts University](#), like MIT, uses the OpenCourseWare online learning platform. Free courses, including lectures, homework assignments, and reference materials, are offered by the schools of Arts and Sciences, Medicine, and others.
- [Stanford University](#), always striving to be the coolest school for geeks, has teamed up with iTunes U to offer access to Stanford courses, lectures, and interviews with professors. You don't have to use Apple's iTunes application to download materials to your iPod, Mac, or PC. You can even burn the materials to CD.
- [University of California at Berkeley](#), one of the top schools in the United States, has been offering online lectures and interactive Webcast courses since 2001. Hundreds of current and archived courses can be downloaded or viewed and heard at your leisure. Subjects include astronomy, biology, chemistry, computer programming, engineering, psychology, legal studies and philosophy.
- [Utah State University](#) offers only text-format materials, but you can view them online or download them as compressed files.

Virtual Tours

This free virtual tour of **Machu Picchu** in Peru mixes 360° photos and an informative commentary to give an intimate and fascinating insight into the history of this famous 15th century Inca citadel.
https://www.youvisit.com/tour/mac_hupicchu

A surprisingly extensive free virtual tour of the beautiful **Polish city of Kraków**. The computer-generated commentary can get a bit annoying, but you can turn it off if you wish. There's plenty of photos, videos and information to keep you sightseeing for hours.
<http://wirtualnyspacer.krakow.pl/html5/index.php?id=52619&lng=EN>

Son Doong is the world's largest natural cave. Located in Vietnam, it features a subterranean river and the largest cross-section of any cave worldwide. National Geographic's virtual tour lets you explore the cave with full 360-degree views and immersive sounds. You can even zoom in one area to check out the campers in their tents. Son Doong is beautiful and worth a virtual visit.
<https://www.nationalgeographic.com/news-features/son-doong-cave/2/#s=pano37>

[Virtual 3D Tour of the International Space Station](#) - Put your 3D glasses on for this virtual visit of the International Space Station's modules. Float through the space laboratories and connecting modules from the perspective of an astronaut. (From ESA, European Space Agency)

Topics range from anthropology to theatre arts to physics and more.

- [Kutztown University's](#) Small Business Development Center offers the largest collection of free business courses available on the Web. Covering accounting, finance, government, business law, marketing and sales, materials are in text, interactive case studies, slideshows, graphics, and streaming audio.
- [The University of Southern Queensland](#), in Australia, offers yet another OpenCourseWare initiative. Topics include communication, science, career planning, technology, teaching and multimedia creation.
- [The University of California at Irvine](#) just recently joined the OCW Consortium. UC Irvine's offerings are relatively small but growing. Current courses cover topics like financial planning, human resources, capital markets and e-marketing. Course materials include syllabi, lecture notes, assignments and exams.

Want more free online college courses? Continue to [Part Two](#) and [Part Three](#)

The real value of learning is in the learning itself and what you do with knowledge, not in its contribution to a piece of paper called a diploma. But still you should read the fine print of online college courses' Web sites carefully. You may or may not get college credit for them. For more information on accreditation, see my related article [Are Online Colleges Accredited?](#)

Have you taken online college courses? Tell me about your experience, or post your comment or question below...

Your thoughts on this topic are welcome. Post your comment or question on my website, <https://askbobrankin.com>.

* * * * * 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.

Non-soggy biodegradable drinking straws made from wood waste

By [Ben Coxworth](#), March 06, 2023

Although disposable plastic straws are being phased out in some countries, their "greener" replacements have a few shortcomings of their own. Well, scientists have now developed bioplastic straws that don't get soggy, but do biodegrade when discarded.

While we have seen other [experimental eco-friendly straws](#), some (such as those made of paper) break down when wet, while others (such as those made of sugar cane) require complex production processes. Non-disposable [multi-use straws](#) are certainly one alternative, although not

Unusual Product

Bird Buddy Smart Bird Feeder

This AI-powered camera feeder notifies you of bird visitors, captures their photos and organizes them in a beautiful collection.



Bird Buddy will notify you whenever a bird stops by. It's one of those rare notifications that actually make you feel better, not worse. Control the camera with your smartphone. Bird Buddy gives you full control over its built-in camera from the comfort of your home.

You could never get as close to your shy feathered friends as your Bird Buddy camera feeder can. The goofy, selfie-like perspective and a wide-angle lens will make every bird an Internet star. Reliable bird species recognition. Bird Buddy will recognize all the birds that visit you. Fill up your album with all the bird species that live in your region.

The Bird Buddy feeder's camera always knows who's in front of the lens. Equipped with artificial intelligence, it recognizes over 1,000 bird species. Even that rare one you always wondered about. <https://mybirdbuddy.com/?msclkid=2b3ecdc889281f288a51a9d9c872c9c4>.

everyone is always going to have such a straw on them whenever they grab a drink while out and about.

With these limitations in mind, scientists from South Korea's Inha University looked to lignin, a type of organic polymer which makes up much of the support tissue in plants – including trees. It's also a byproduct of the pulp and paper industry, and has previously been put forward for use in applications such as [cheaper batteries](#), [waste-derived carbon fiber](#) and [stronger concrete](#).

The researchers combined lignin with either potato starch or plant-derived polyvinyl alcohol (PVA), then added citric acid to that mixture. They then spread the slurry into a thin sheet, rolled that sheet into a cylinder and allowed it to dry, then heated the cylinder in a vacuum at a temperature of 180 °C (356 °F).

The resulting bioplastic self-sealed along the seam, forming a long, skinny tube that was cut into individual flexible straws. Those straws didn't become soggy when immersed in liquid, and were in fact even stronger than conventional polypropylene straws. That said, while the traditional straws remained unchanged after being left outside and exposed to the elements for two months, the lignin straws had significantly biodegraded.

A paper on the study – which was led by Dickens Agumba, Duc Hoa Pham and Jaehwan Kim – was recently published in the journal [ACS Omega](#).

This article was found at

<https://newatlas.com/environment/biodegradable-drinking-straws-lignin/>.

Chinese team creates vocal cords on a chip

by Peter Grad , Tech Xplore, March 7, 2023

Nature Machine Intelligence (2023). DOI: 10.1038/s42256-023-00616-6

Most of us take our voices for granted. But if we sing too long at a wild party, scream for our team at a sports event or suffer a bout of laryngitis due to a cold, we quickly learn how inconvenient it is to wake up the next day and realize we've lost our voice.

In more serious situations, vocalization can be seriously compromised due to disease, surgery or stroke. In those instances, the inability to communicate efficiently with medical personnel or first responders is more than an inconvenience, it could be life-threatening.

A team of researchers at Beijing's Tsinghua University have developed a simple device that addresses this problem. They designed a wafer-like tool one centimeter square that can easily be affixed to the throat and allow barely audible sounds, or even whispers, to be converted into [speech](#) at normal volume.

The device, referred to by researchers as a "graphene-based intelligent, wearable artificial throat," is about the thickness of plastic cling wrap. The 25-micrometer deep device may be applied to one's throat with a simple adhesive. Tiny wires connect to a microcontroller powered by a coin-sized battery.

* * Jokes & Quotes Stolen from Everywhere * *

Optimism

"We choose hope over fear. We see the future not as something out of our control, but as something we can shape for the better through concerted and collective effort. We reject fatalism or cynicism when it comes to human affairs; we choose to work for the world as it should be, as our children deserve it to be."

— Barack Obama

"I do have reasons for hope: our clever brains, the resilience of nature, the indomitable human spirit, and above all, the commitment of young people when they're empowered to take action."

— Jane Goodall

"We are in a time of crisis, but we are also in a time of hope. And it's not passive hope. It's let's get out there, roll up our sleeves, and get the job done hope."

— Jamie McLeod-Skinner

"Optimism doesn't mean that you are blind to the reality of the situation. It means that you remain motivated to seek a solution to whatever problems arise."

— The Dalai Lama

"Optimism isn't a belief that things will automatically get better; it's a conviction that we can make things better."

— Melinda French Gates

"No one has a right to sit down and feel hopeless. There is too much work to do."

— Dorothy Day

Research team leader Professor Ren Tianling stated in an article recently published in *Nature Machine Intelligence* that the artificial throat is capable of recognizing speech elements such as phonemes, tones and words at an accuracy rate of 99 percent. It relies on an artificial intelligence model to interpret captured sounds and bodily vibrations to generate vocalizations.

"Its feasible [voice] fabrication process, stable performance, resistance to noise and integrated vocalization make the AT a promising tool for next-generation [speech recognition](#) and interaction systems," Tianling said.

Current strategies to communicate with voice-disabled patients rely on microphones attached to the body, but that is often unwieldy and considered a "non-friendly" user setup.

Read more at <https://techxplore.com/news/2023-03-chinese-team-vocal-cords-chip.html>.

Apple M3: a new chip for new Macs in 2023

By David Webb

Apple is said to be preparing new MacBooks and iMacs for 2023. The main updates will be the integration of an M3 chip engraved in 3nm, which would offer significantly higher performance than the M1 and M2. In this article we will break down everything we know about the new M3 chip so far.

What are the latest Apple leaks in 2023?

Apple's traditional leaker, Mark Gurman, is a Bloomberg journalist who is famous for his more often than not correct predictions on up and coming Apple projects. He regularly reveals these in **Power On**, his weekly newsletter. And in the March 5th, 2023 edition, he announced several new features that will please Mac enthusiasts, with the imminent arrival of a new M3 chip that will soon be installed in various models, including a new 24-inch iMac, and probably in the 13-inch MacBook Air, which could be accompanied this year by a much-anticipated big brother, a 15-inch MacBook Air.

M3 chip: more power and better energy efficiency

According to the Gurman, who seems to have reliable sources, Apple is in the process of carrying out validation tests on its new in-house chip, the M3. A SoC – an all-in-one circuit comprising a main processor (CPU), a graphics processor (GPU), various specialized circuits and RAM – which would succeed the famous M1 and M2 chips by benefiting from a major update: a 3nm (nanometer) engraving, instead of the 5nm technology used on previous generations of Apple chips. TSMC, the famous and essential Taiwanese manufacturer, which supplies integrated circuits to the main digital players, opened its 3nm production lines towards the end of 2022, and Apple, which is one of its main customers, will be a priority for equipping its new products and thus consolidating its technological lead in the field over its competitors.

Read more at <https://ccm.net/computing/macOS/10725-apple-m3-a-new-chip-for-new-macs-in-2023/>.

Odds and Ends

MIT **App Inventor** is an intuitive, visual programming environment that allows everyone – even children – to build fully functional apps for Android phones, iPhones, and Android/iOS tablets. Those new to MIT App Inventor can have a simple first app up and running in less than 30 minutes. And what's more, our blocks-based tool facilitates the creation of complex, high-impact apps in significantly less time than traditional programming environments. The MIT App Inventor project seeks to democratize software development by empowering all people, especially young people, to move from technology consumption to technology creation.

A small team of MIT CSAIL staff and students, led by Professor Hal Abelson, forms the nucleus of an international movement of inventors. This core team maintains the free online app development environment that serves more than 6 million registered users.

Blocks-based coding programs inspire intellectual and creative empowerment. MIT App Inventor goes beyond this to provide real empowerment for kids to make a difference – a way to achieve social impact of immeasurable value to their communities.

With over a million unique monthly visitors from 195 countries collectively creating almost 30 million apps, MIT App Inventor is changing the way the world creates apps and the way that kids learn about computing.

Check it out.

<https://appinventor.mit.edu/ab-out-us>.

The best free games for 2023

Some great games don't cost a thing.
[Engadget](#) | [@engadget](#) | December 21, 2022

Gone are the days when free games equated to ropey puzzle games and knock-off clones of games that had a price tag. These days, courtesy of in-app payments and the ease of offering both a sample of a title alongside its full-fat version, there are actually plenty of great games to play without spending a dime. Following the continued success of titles like *Fortnite*, the level of quality across mobile, PC and consoles has never been higher. Put your card away, and consider this your starting point.

Genshin Impact's world is rich and varied. It's also a huge accomplishment for a free game that's found a huge chunk of its audience on smartphones.

Even though Blizzard has improved the onramp for new players this time around, **Overwatch 2** still has a steep learning curve. Stick with it, though, and you'll get to indulge in perhaps the best team shooter around.

Fortnite Battle Royale is a social space as much as it is a game. It also happens to be a great video game with a clear path to victory.

Fall Guys is a different flavor of battle royale. It's essentially a platformer in the vein of MXC or Takeshi's Castle, in which only a certain number of players will qualify from each obstacle-laden round.

Apex Legends is a 60-player deathmatch with teams consisting of three people each. The goal is for your team to be the last one standing in Kings Canyon, where you'll have to loot and fight your way to survival.

Dota 2 has one of the steepest learning curves of any game. Only after sinking hundreds upon hundreds of hours into it can you begin to understand the deep game mechanics, 100+ unique characters and team strategies.

Pokemon Go isn't perfect, but the fundamentals — walking around outside, spinning Pokéstop signs and catching critters — make this a truly unique and health-beneficial experience for Pokemon fans.

Call of Duty: Warzone. This free-to-play battle royale has persisted through numerous iterations of the Call of Duty franchise, with new maps, game modes and weapons helping to push the player base above the 100 million mark.

Check out the details at <https://www.engadget.com/best-free-games-163045609.html>.

RCSI

Imagine RIT: Creativity and Innovation Festival, Saturday,
April 29, 10 – 5 pm, **FREE**

Many indoor and outdoor events, some are weather permitting
For more information on this spectacular campus-wide public event,

<https://www.rit.edu/imagine/>.

Perovskites, a 'dirt cheap' alternative to silicon, just got a lot more efficient

University of Rochester, February, 2023

The secret, a University of Rochester optics professor explains, is to harness the power of metals.

Silicon, the standard semiconducting material used in a host of applications—computer central processing units (CPUs), semiconductor chips, detectors, and solar cells—is an abundant, naturally occurring material. However, it is expensive to mine and to purify.

Perovskites—a family of materials nicknamed for their crystalline structure—have shown extraordinary promise in recent years as a far less expensive, equally efficient replacement for silicon in solar cells and detectors. Now, a study led by [Chunlei Guo](#), a professor of [optics](#) at the [University of Rochester](#), suggests perovskites may become far more efficient.

Researchers typically synthesize perovskites in a wet lab, and then apply the material as a film on a glass substrate and explore various applications.

Guo instead proposes a novel, physics-based approach. By using a substrate of either a layer of metal or alternating layers of metal and dielectric material—rather than glass—he and his coauthors found they could increase the perovskite's light conversion efficiency by 250 percent.

Novel perovskite-metal combination creates 'a lot of surprising physics'

Metals are probably the simplest materials in nature, but they can be made to acquire complex functions. The Guo Lab has extensive experience in this direction. The lab has pioneered a range of technologies transforming simple metals to pitch black, superhydrophilic (water-attracting), or superhydrophobic (water-repellent). The enhanced metals have been used for solar energy absorption and water purification in their recent studies.

Find out more at <https://www.rochester.edu/newscenter/metal-perovskite-solar-cells-vs-silicon-efficiency-550212/>.

Hewie Poplock Zoomed in from Florida (a former student at SUNY Brockport) and gave a presentation on '(The) Browser – Your Most Important App'. Quite a few recent changes, especially for the Edge browser that now incorporates part of ChatGPT into their search engine. He is also busy with a Windows SIG with the Sarasota Technology Users Group (STUG), www.thestug.org. Hewie is also a member of Tech for Senior,

www.techforsenior.com. Check out these sites, plus www.hewie.net, and consider joining.

Tech for Seniors



Ron Brown, Hewie Poplock, Bob Gostischa, Ray Baxter & Bill James

Got Questions?:

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

Windows OS: Arpad Kovacs, podcomputer@gmail.com

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

Our Usual Meeting Place is being renovated.

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

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