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

M◻NIT◻R

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* * July and August, summer hiatus – No Meetings * *

In This Issue

Is "Juice Jacking" Real?

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

The FBI released a warning against "juice jacking", but is it really something you need to worry about?

Scary news headlines abounded in recent weeks as the FBI warned against something called "juice jacking".

Is it really a threat?

No. Not really.

Well, OK, maybe. But that's a really really big maybe.

Scary news headlines abounded in recent weeks as the FBI warned against something called "juice jacking".

The warning

The Denver office of the FBI posted a warning on Twitter.

"Avoid using free charging stations in airports, hotels or shopping centers. Bad actors have figured out ways to use public USB ports to introduce malware and monitoring software onto devices. Carry your own charger and USB cord and use an electrical outlet instead."

The implied threat is that charging your device at a randomly available USB socket could result in malware making its way to your device.

The tech

Your USB connection is used for two separate functions:

• Power and recharging
• Data transfer, such as to or from your computer

It's the latter item that is of concern. The concept is that a random socket of unknown origin offering the first could also be used to do the second maliciously. In other words, it could be used to surreptitiously copy your data from your phone or transfer malware to your phone.

It's referred to as "juice jacking" because they're supposedly hacking your data while you're "juicing" (charging) your device.

But are they really?

The reality

This might have been a threat once upon a time, but today's devices are smarter than that.

To begin with, most require an additional step for data transfer. By default, the device ignores all data, connecting only to power up. You need to take an additional, manual step to enable data transfer each time you want it.

The other reality? To the best of my knowledge, there have been zero reports of juice jacking ever happening.

The protection

There's no harm in protecting yourself, particularly since it's easy. There are two approaches.

Use a wall charger. Anything that plugs into a power outlet is safe to use to charge your device. There's no data involved.

The other approach is to use what's called a "USB data blocker".

These devices connect only the power connections between your cable and untrusted USB sockets. The data lines never make contact.

Do this

Travel safely. Honestly, I don't want to worry about this for the reasons I've mentioned above, but if you like, using the solutions listed will keep you safe.

Perhaps the biggest takeaway here is not to let headlines scare you — even, apparently, if they come from the FBI.

Want something you can believe? Subscribe to Confident Computing! Less frustration and more confidence, solutions, answers, and tips in your inbox every week.

Tech for Senior, **www.techforsenior.com**.

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

Monitor Newsletter
The <u>Monitor</u> 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.

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Deepfakes on Social Media Prompt Warnings of AI Risks
Author Dr. Matthew Ogunbukola, May 13, 2023

Abstract
   Deepfakes, a technique using artificial intelligence to create manipulated videos and images, have become increasingly prevalent on social media. While initially used for entertainment purposes, the potential dangers of deep fakes have become a growing concern, prompting warnings of the risks posed by AI. Deepfakes can be used to spread misinformation, create political propaganda, or damage reputations.
   In addition, they can erode trust in information and institutions, making it more challenging to differentiate between truth and falsehood. Researchers and experts have called for increased regulation and education to address the risks posed by deep fakes. The development of effective detection tools is also crucial to mitigate the harm caused by these technologies.

Introduction
   Deepfakes are videos or audio recordings that have been manipulated to make it look or sound like someone is saying or doing something they never actually said or did. These videos can be very convincing, and they are becoming increasingly easy to create. As a result, there are growing concerns about the potential risks of deep fakes, particularly on social media.
   One of the biggest concerns about deep fakes is that they could be used to spread misinformation or propaganda. For example, a deep fake could be used to make it look like a politician is saying something controversial or offensive or to make it look like a celebrity is endorsing a product or service. Deepfakes could also be used to damage someone's reputation or to blackmail them.
   The rise of deep fakes to create realistic-looking videos or audio of people saying or doing things they never actually said or did, is raising concerns about the potential for these technologies to be used to spread misinformation, damage reputations, or even influence elections.
   Deepfakes have been around for some years, they are becoming more prevalent on social media platforms like Facebook, Instagram, and TikTok. This is worrying because deep fakes can be used to spread misinformation, defame individuals or organizations, and even manipulate public opinion.
   Deepfakes are created using artificial intelligence (AI) techniques to manipulate existing images or videos to create new ones. The technology is still in its early stages, but it has already been used to create convincing deep fakes of celebrities, politicians, and other public figures.
   There have been several high-profile cases of deep fakes being used to spread misinformation. In one case, a deep fake video of former President Barack Obama was used to make it appear as though he was endorsing a particular candidate in the 2020 Democratic presidential primary. In another case, a deep fake video of a female politician was used to make it appear as though she was making sexist remarks.
   These cases have raised concerns about the potential for deep fakes to be used to manipulate public opinion and influence elections. In a recent survey, 72% of Americans said they were worried about the potential for

Bear wrestling was legal in **Alabama** until 1996—and became so again in 2015. Bear wrestling was once a popular attraction in Alabama barrooms and fairgrounds. Spectators would look on in excitement as strong men and pro wrestlers attempted to pin live bears—usually of the grizzly, black, or brown varieties—to win money and prove their strength.

If you live in **California**, earthquakes are a part of life. But you might not have realized just how frequently they occur—since most of them are essentially undetectable to humans. According to the United States Geological Survey, around 10,000 earthquakes are recorded each year in Southern California. Luckily, only around 15 or 20 have a magnitude that's greater than level four on the Richter scale.

An array of fascinating, fabulous, and freakish creatures call the state of **Florida** home—and the giant African land snail is one of them. The critter is so unnerving, that when the Florida Department of Agriculture released a public service announcement warning residents about the snails, they had to assure everyone, "This is not science fiction. This is real."
An invasive species, the giant African land snail can grow up to eight inches long and live up to nine years, according to CBS News. On top of that, they can lay up to 1,200 eggs a year.

deep fakes to be used to spread misinformation during the 2024 presidential election.

The rise of deep fakes is also raising concerns about the potential for these technologies to be used to damage reputations or even commit fraud. For example, a deep fake video could be used to make it appear as though someone is saying or doing something embarrassing or illegal. This could be used to damage someone's reputation or even get them fired from their job.

And can be used to commit fraud. For example, a deep fake video could be used to make it appear as though someone is giving their consent to a financial transaction. This could be used to steal money or commit identity theft.

The potential risks of deep fakes are significant, and it is important to be aware of them. Many things can be done to mitigate the risks, including:
• Educating people about deep fakes and how to spot them.
• Developing technology to detect and remove deep fakes.
• Creating laws and regulations to govern the use of deep fakes.
• The rise of deep fakes is a reminder of the potential dangers of AI. As AI technologies continue to develop, it is important to be aware of the potential risks and take steps to mitigate them.

Reprinted from https://articlebiz.com/article/1052065215-deepfakes-on-social-media-prompt-warnings-of-ai-risks.

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

12 Unnecessary Windows Programs and Apps You Should Uninstall

By Ben Stegner

Wondering which Windows apps to uninstall? Here are several unnecessary Windows 10 and 11 apps, programs, and bloatware you should remove.

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Out of all the software on your computer, how many programs do you actually use regularly? Most people keep a fair amount of unnecessary software installed on their systems. While some of these apps are just outdated, others are Windows bloatware, malicious software, or junk you can remove from your computer.

Here are some common yet unnecessary Windows apps you should uninstall.

How to Check Your Installed Programs on Windows 11 or Windows 10

It's easy to review the installed programs on your system using either Windows 11 or Windows 10. On Windows 10, open **Settings** and head

Windows & Android Tips
Judy Taylour

**HOW TO BACK UP A MACHINE THAT WON'T BOOT – ** You need to boot to back up, but you can't boot. What then? Here's the scenario: all is well and you're getting lots of work done on your computer when all of a sudden, it crashes. No idea why — it just crashes. What's worse, it won't reboot. Maybe it just hangs on boot, maybe it says the drive isn't found, or maybe there's something else interfering. To make matters worse yet, you stand to lose all that work you were doing because it hasn't yet been backed up. Your most recent work seems to be locked inside a hard drive you can't access. There may be a way to back it up before dealing with the crash. Learn how…
How to Back Up a Machine That Won't Boot – Ask Leo!

**RICK'S TIPS Q&A: HOW DO I REOPEN A BROWSER TAB I CLOSED BY ACCIDENT? – ** I close the wrong tab ALL THE TIME, and I'd really like to know how to open it back up! Find out from Rick how to open it back up.
https://tinyurl.com/bd5tfkke

GOOGLE SEARCH TRICKS: 7 SIMPLE WAYS TO FIND WHAT YOU'RE LOOKING FOR – Google is the world's most popular search engine. Indeed, "Google it" has become part of our lexicon. But that's not always so straightforward, is it? No matter how long you've been using Google, there are better ways to find what you're looking for that you may not be aware of. Here are a few ways to get more out of Google search.
https://tinyurl.com/4k3xprw7

into the **Apps > Apps & features** section. On Windows 11, this is **Apps > Installed apps** instead. Here, you'll see a list of everything installed on your PC.

On Windows 11, click the three-dot button and choose **Uninstall** to remove a program. On Windows 10, just click the entry to show the **Uninstall** button.

FREE CHEAT SHEET: The Ultimate List of Helpful Windows Alt Codes

Those still on Windows 8.1 or (the unsupported) Windows 7 can click on the Start button and search for **Programs and Features**. This will open a similar list where you can review everything currently installed on your system and uninstall unneeded apps.

Depending on the software, the app might uninstall immediately or require you to advance through some dialog boxes. See our guide to uninstalling programs on Windows for more info.

Now, let's look at what apps you should uninstall from Windows—remove any of the below if they're on your system!

1. QuickTime
QuickTime is Apple's video player. While it's still a current program on macOS, the company hasn't supported the Windows version since 2016.

Shortly after Apple announced the deprecation of QuickTime for Windows, Trend Micro announced that the software had a few critical vulnerabilities. Since Apple will never patch these, it's not safe to have QuickTime installed anymore.

Removing QuickTime shouldn't cause any disruptions, as iTunes doesn't rely on it. If you need a replacement for QuickTime, use VLC, which will play pretty much anything.

2. CCleaner
CCleaner was once a trusted Windows app for cleaning junk, but its reputation went downhill after it was acquired by Avast. Past issues include forced updates without permission, data collection that enabled itself even if you disabled the function, and the software distributing malware unknowingly.

When we looked at CCleaner in 2020, we found that it had cleaned up its act but was still largely unnecessary. You'll find suitable cleaning tools elsewhere, including those built into Windows itself. Follow our step-by-step guide to cleaning your PC and you can say goodbye to CCleaner.

3. Crappy PC Cleaners
Many people have installed (or accidentally installed) a PC-cleaning app at some point. The majority of these products range from useless to harmful, as registry cleaners don't improve the performance of Windows at all. If you find garbage like MyCleanPC or PC Optimizer Pro in the list of your installed apps, you should remove them.

Scams

Reported on

Crypto refund swindles
Beware if you've lost money in a cryptocurrency scam: Criminals set up fake "get your crypto cash back" websites, including one that looks like it's from the U.S. Department of State. After luring targets, they contact those who respond by phone, email or social media and ask for personal ID information, including account numbers and passwords, plus an advance fee for their services payable by gift card, cryptocurrency or wire transfer. You get nothing, warns the FTC.
   How to stay safe: Crypto investments aren't insured by the government the way bank accounts are. For the most part, funds lost to crypto scammers are gone. Don't trust anyone who contacts you saying they can get your money back, says Frank McKenna, chief fraud specialist for the fraud detection company Point Predictive.

LinkedIn relationship fakes
A criminal might send you a message on LinkedIn, claiming to be just starting out in the same industry you're in, seeking advice from a more experienced colleague. It's flattering and fun to be a mentor, so you agree. You get to know each other, and eventually they ask to move your conversation onto a personal device, then lure you into a scam.

Read our guide to cleaning mentioned above for a proper cleanup method. If your computer feels slow, try some ways to make Windows faster.

4. uTorrent
uTorrent was once considered the gold standard of torrenting software. However, it's had a host of issues over the years that make it untrustworthy now.

Aside from having ads crammed into the interface, uTorrent also includes offers for other software tools, which is annoying. Its worst offense came in 2015, when the app was found to bundle in cryptocurrency mining software without letting users know. This wasted your system resources in the background to make money for the company, which allegedly gave some to charity.

There's no reason to bother with uTorrent. We think qBittorrent is the best torrent client, as it's free of all this nonsense.

5. Adobe Flash Player and Shockwave Player
Adobe Flash Player is no longer supported by Adobe or browsers as of January 2021. Though it's blocked in all modern browsers now, you should still uninstall local copies of Flash. This will keep you safe from any future security issues since Adobe isn't updating it anymore.

A similar runtime plugin, Adobe Shockwave Player, was discontinued in 2019. The company no longer offers it for download, and you're extremely unlikely to find a website that needs it.

You should thus remove both Shockwave Player and Flash Player. They're both relics of an era gone by and unnecessary today. However, it's still possible to enjoy Flash games offline.

6. Java
Java is another media runtime, and it includes two components: Java on the desktop, and the Java plugin for browsers (which is notorious for having security problems). Though it was once fairly common, very few websites use it nowadays. At the time of writing, W3Techs shows that a fraction of one percent of websites use Java.

Modern versions of Chrome and Firefox don't support it, which means that Java is less of a security problem than it once was. Unless you're an Android developer or use some specialized software that relies on Java, you should uninstall it. You'll probably never notice a difference.

7. Microsoft Silverlight
Silverlight is a web framework, similar to Adobe Flash, that once enabled rich media content in your browser. Years ago, these plugins were necessary on a lot of websites. But now they're deprecated and no longer useful. Looking at W3Techs again, we see that around 0.02 percent of websites use Silverlight as of this writing.

Modern browsers don't even work with Silverlight; Chrome and Firefox haven't supported it for years, and it was never compatible with Edge.

Virtual Tours

Statue of Liberty

   The Statue of Liberty is a colossal neoclassical sculpture on Liberty Island in New York Harbor in New York City, in the United States. The copper statue, a gift from the people of France, was designed by French sculptor Frédéric Auguste Bartholdi and its metal framework was built by Gustave Eiffel.
https://www.airpano.com/360phot o/Statue-of-Liberty-New-York-USA/.

Buckingham Palace, United Kingdom

   An iconic building and official residence of The Queen, Buckingham Palace has been the focus of many moments of national celebration, from Jubilees and weddings to VE Day and the annual Trooping the Colour which marks The Queen's official birthday. It is also a busy working building welcoming tens of thousands of people through its gates each year for Investitures, Garden Parties, Audiences and other events. Skip the long 3 month wait and the €30 entrance ticket and see Buckingham Palace virtually.
https://www.royal.uk/virtual-tours-buckingham-palace.

Table Mountain, Cape Town, South Africa

   It is a flat-topped mountain forming a prominent landmark overlooking the city. It is a significant tourist attraction, with many visitors using the cableway or hiking to the top. Here is a very short video.
https://www.youtube.com/watch?v=zH5tyALuPSQ.

Silverlight is only officially supported in Internet Explorer, which Microsoft retired in mid-2022. You won't lose anything by uninstalling Silverlight.

8. All Toolbars and Junk Browser Extensions
When you're wondering what else to uninstall from Windows 10 or 11, another obvious candidate is junk in your browser. While toolbars were once a far more prevalent problem, modern versions of Chrome and other browsers have thankfully fought back and mostly eradicated them. However, spammy extensions are still in the wild.

Have a look in your programs list for toolbars like the Bing Bar, Google Toolbar, Ask Toolbar, Yahoo! Toolbar, or the Babylon Toolbar. If you find any of them, uninstall them. After that, review the installed add-ons or extensions in your browsers. Make sure you recognize and review everything there, as even trustworthy extensions can be sold to shady companies.

9. Coupon Printer for Windows
The purpose of Coupon Printer for Windows is to provide access to deals from Coupons.com. However, since this software is typically found bundled in with other programs, chances are that you didn't want to install it in the first place.

If you're a diehard Coupons.com user, you can leave this one installed so you can access its discounts. Everyone else should uninstall this program and use another coupon site that doesn't require installing anything.

10. Manufacturer Bloatware
Unless you're running a premium device like the Surface Pro, or you installed Windows from scratch on a new desktop, chances are your computer came with lots of preinstalled junk from the manufacturer. Laptops from HP, Dell, Toshiba, Lenovo, and more are prone to this issue.

Consider these unnecessary programs you should get rid of, as none of them are required for Windows to function. Some of the preinstalled branded programs, like photo apps, gaming tools, or anything that duplicates Windows utilities, are completely unnecessary. Others, such as driver/BIOS update utilities (like Lenovo System Update), are worth keeping around.

Of course, we can't comment specifically on every piece of manufacturer software. To find out about what you should delete from your system, it's a good idea to check out Should I Remove It?, which gives an overview of what each program does and how others have rated it.

When in doubt, anything from the manufacturer is probably not necessary. But it's always good to double-check.

11. Windows 10 and Windows 11 Bloatware
Having to remove manufacturer bloatware is annoying enough, but Microsoft includes a fair bit of its own in modern versions of Windows in

Interesting Internet Finds
by Steve Costello
scostello@sefcug.com

How To Make Android Faster: 11 Things That Work (And 3 That Don't)
https://www.makeuseof.com/tag/android-faster-works/
I have Android phones and tablets, so this post got my attention. I am always looking for ways to make these devices work faster. I have used most of the tips at one time or another, and I no longer use the 3 that don't work even before reading this.

Is It Dangerous To Use Free Stock Photo Websites?
https://www.plagiarismtoday.com/2022/05/18/is-it-dangerous-to-use-free-stock-photo-websites/
This is an interesting article for the editors and bloggers that use photos from stock photo websites. Just because it is free from a stock photo website does not mean it is safe to use. Check out the advice in this post before using just any stock photo website photo.

Wordpress Users Need To Watch Out For Fake Copyright Infringement Warnings
https://www.techlicious.com/blog/wordpress-users-need-to-watch-out-for-fake-copyright-infringement-warnings/
Are you a Wordpress user? If so, you need to read this post so you know how to protect yourself.

the form of Store apps. Thankfully, you can uninstall most of these unnecessary programs without much hassle.

Some of the default Modern apps, like Xbox and Weather, are useful to some people but not others. Others, like Candy Crush Saga, are junk you should remove. See how to get rid of this junk in our Windows 10 bloatware removal guide, or our overview of uninstalling bloatware in Windows 11.

12. WinRAR
While having a file extraction and compression tool around is certainly useful, WinRAR is not the best choice for the job. The app has become a bit of a punchline due to its old-school "shareware" license. You can download a "trial" of WinRAR for free, which asks you to pay after using it for some time. However, the app never locks you out, even if you don't pay, so you can use it indefinitely.

Despite this, there's really no reason to use WinRAR anyway. 7-Zip is a free and simple tool that covers most people's needs. Whatever you do, please don't waste money on WinRAR.

Uninstall These Programs From Windows
The above programs are unnecessary because they no longer serve any useful function. If you uninstall something and later find that you need it again, you can always reinstall it. Just be sure to install it without any bundled junk when you do.

It's a good idea to do regular cleaning on your system to remove old or junky Windows programs. Some might be "zombie apps" that pose a security risk.

Reprinted from https://www.makeuseof.com/tag/10-windows-programs-uninstall/.

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.

* * Jokes & Quotes Stolen from Everywhere * *

Last month I typed in the words duck jokes. This time I typed the words horse jokes.

What did the mother horse say to her foal? It's pasture bed time.

Why do most horses look so fit? Because they're on a stable diet.

How much money does a bronco have? A buck.

What kind of food do race horses like to eat? Fast food.

What do you call a horse that likes to stay up late? A night mare.

What kind of bread do horses like to eat? Thoroughbred.

Why do cowboys like to ride horses? Because they're too heavy to carry.

What does it mean when you find a horseshoe on the ground? Some poor horse is walking around in socks.

Why couldn't the pony sing? Because he was a little hoarse.

What do you call a horse that lives next door to you? A neigh-bor.

What is a horse's favorite sport? Stable tennis.

When does a horse talk? Whinny feels like it.

Why couldn't the horse dance? Because he had two left feet.

What did the horse say after she fell over? Help! I've fallen, and I can't giddy-up.

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* * * * * 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.

ChatGPT App: iOS, iPhone, Official

David Webb

It's official: OpenAI finally launches its ChatGPT mobile application! In its press release, the start-up announces the availability of the app in an iOS version initially, the Android edition being planned soon, without a specific date, however. The iPhone app has already started rolling out in the US, via Apple's App Store, with OpenAI planning to make it available in other countries in the coming weeks. Prudent, the company indeed adopts a progressive approach in order to improve its product according to the feedbacks of the users. And like the web version, the ChatGPT app is free!

With the introduction of the official iPhone app, iPhone users can now directly engage with ChatGPT without the need for third-party solutions. Previously, the absence of an official app had led to the emergence of numerous unofficial ChatGPT apps, with some falsely claiming to be endorsed by OpenAI. These unofficial apps often imposed charges for using the chatbot, despite its availability for free through web browsers. However, with the release of the official app, it is anticipated that these unofficial alternatives will gradually fade away.

Found on the website https://ccm.net/apps-sites/apps/11003-chatgpt-app-ios-iphone-official/.

Perovskite: new type of solar technology paves the way for abundant, cheap and printable cells

David Beynon
Senior Research Officer at the SPECIFIC Innovation and Knowledge Centre, Swansea University, Wales

Silicon solar cells are an established technology for the generation of electricity from the sun. But they take a lot of energy to produce, are rigid and can be fragile.

However, a new class of solar cell is matching their performance. And what's more, it can now be printed out using special inks and wrapped flexibly around uneven surfaces.

We have developed the world's first rollable and fully printable solar cell made from perovskite, a material that is much less expensive to produce than silicon. If we can also improve their efficiency, this points to the possibility of making cheaper solar cells on a much greater scale than ever before.

Perovskite is a crystal structure made with inorganic and organic components, named after Lev Perovski, a Russian mineral expert of the 17th and 18th centuries.

Odds and Ends

Low-Cost Smartphone Finger Clip Measures Blood Pressure

June 12th, 2023 Conn Hastings

Engineers at the University of California San Diego have developed a low-cost cuffless blood pressure monitor. The device is a clip that attaches over a smartphone camera and flash. The user presses their finger against the clip, and the system can infer the amount of blood passing through the finger, and the amount of pressure being exerted on the clip by the finger. A smartphone app then uses algorithms to interpret these data and estimate the blood pressure. At present, the clip costs only 80 cents to produce, providing a low-cost method for people in low-resource areas to monitor their blood pressure. With mass production, the researchers claim that the clip could cost just 10 cents to make.

"Because of their low cost, these clips could be handed out to anyone who needs them but cannot go to a clinic regularly," said Edward Wang, a researcher involved in the study.

The 3D printed clip fits over the phone camera and flash. A spring within the clip allows a user to apply varying pressure to it. A small aperture in the clip functions as a pinhole camera, and the camera visualizes a red dot when a user's fingers is pressed against it.

Check it out at
https://www.medgadget.com/2023/06/low-cost-smartphone-finger-clip-measures-blood-pressure.html.

My colleagues and I recently demonstrated that a roll of plastic film can be loaded into a printing press, and working perovskite solar cells emerge at the other end. However, it's not quite as simple as pouring ink into your desktop printer.

We took a different approach, creating a carbon ink compatible with both the perovskite material and the slot-die coating process. The result is large volumes of flexible, rollable solar cells that come out of the printing press ready to generate power.

Perovskite solar cells have demonstrated high performance in research labs, and have now been proven capable of making the leap to high-volume manufacturing. But the job is not quite done yet.

Reprinted under Creative Commons
https://theconversation.com/perovskite-new-type-of-solar-technology-paves-the-way-for-abundant-cheap-and-printable-cells-202579.

Sexing Chicken Eggs by Scent

by Andy Fell, May 22, 2023

Fertilized chicken eggs can be sexed by "sniffing" volatile chemicals emitted through the shell, according to new work by researchers at the University of California, Davis, and Sensit Ventures Inc., a startup company in Davis. The work is published May 22 in PLOS ONE.

The study shows that it is feasible to sort eggs by sex, early in incubation, based on volatile organic chemicals, said Professor Cristina Davis, associate vice chancellor for interdisciplinary research and strategic initiatives at UC Davis and co-author on the paper.

Hatcheries for laying hens sort chicks by sex a day after hatching, with male chicks being culled immediately. If hatcheries could instead identify the sex of an egg early in incubation, billions of male eggs could be humanely diverted to other uses, reducing waste and environmental impact. Some European countries have already banned culling of male chicks or plan to phase it out.

Technology already on the market depends either on sampling the egg through a tiny hole in the shell, or imaging through the shell. Imaging technology is more accurate with older eggs.

The researchers adapted suction cups used for industrial handling of eggs to "sniff" air from the eggs without opening them. The air samples were analyzed in Davis' lab with gas chromatography/mass spectrometry. Sex of the eggs was confirmed by DNA analysis in Professor Huajin Zhou's lab at the UC Davis Department of Animal Science.
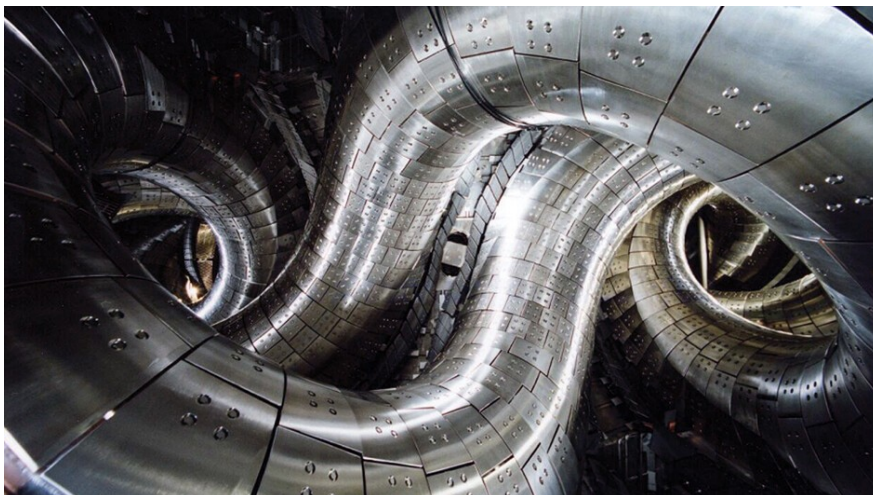
Continue reading at
https://www.ucdavis.edu/food/news/sexing-chicken-eggs-scent.

German startup secures funding for bizarre twisted fusion machine

Watch out tokamak   May 30, 2023

A German startup has secured its first investment to scale a bizarre twisted-looking fusion machine that could power the world with abundant, clean, and limitless energy. While the initial funding round was small, it is noteworthy because the startup is the first spinout from Germany's esteemed Max Planck Institute for Plasma Physics.

The institute is solely dedicated to fusion research and is home to the world's largest stellarator. Dubbed the Wendelstein 7-X, the machine is the result of 27 years of research and design (and €1.3bn of investment), aided by recent advancements in supercomputing and state-of-the-art plasma theory.

However, stellarators are notoriously complex to design and build, which is why they were largely set aside in the 1960s in favour of their simpler cousin, the tokamak.

Proxima Fusion, aided by the initial investment, looks to take these developments commercial. Its CEO Francesco Sciortino believes that the startup's connection to the Max Planck Institute, which has more people working on plasma physics than MIT, offers a unique advantage. "The question is, can we execute just as well, and really make this a European champion?" he asked.

If you, like me, would really like to nerd out on stellarator technology a bit more, check out this fascinating explainer from the Max Planck Institute: https://www.youtube.com/embed/51Hji5NfkdA?feature=oembed&autoplay=1&mute=1&modestbranding=1&iv_load_policy=3&theme=light&playsinline=1.

This article was found on https://thenextweb.com/news/german-startup-fusion-stellarator.

Club and Regional News

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Check out the new website of the Cape Computer & Technology Club, https://sites.google.com/view/capecomputerclub/home/current-news. This is a work in progress but is looking very good.

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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 Former Meeting Place has been 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**