



Computers Are Easy User Group

Abort,
Retry,
Ignore....

Founded 1984 ARI is the
Official Newsletter of
Computers Are Easy User Group

March 2024
Volume XXXX Issue 3

PER GLENSIDE Library (Masks are optional)

INFORMATION for Saturday **March 23th** at home Zoom is 10:00am.
This will be a Zoom meeting ONLY.

There will be a meeting invitation e-mail Thursday evening
before the Saturday meeting.

Our March presentation various short
video presentations about backup software and procedures.

Dues for 2024 are due.
Mail dues to CAEUG, P.O. Box 3150,
Glen Ellyn, IL 60138

Thank you to all who will pay 2024 dues!

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Join CAEUG meeting in Library or from Home,
Stay Safe! Update information on our website at

<https://www.CAEUG.net>

Confirmed
meeting dates

2024

March 23

:: ::

Hybrid
Board Room
in person
OR Zoom

:: ::

Check
website for
dates and
meeting info

:: ::

Mailing address:
CAEUG
P.O. Box 3150
Glen Ellyn, IL
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The Glenside Public Library address is at 25 E Fullerton Avenue, Glendale Heights, Illinois. The meeting(s) are not library sponsored. Individuals with disabilities who plan to attend this program and who require certain accommodations in order to observe and / or participate in the program are requested to contact CAEUG president, at least five (5) days prior to the program, so that reasonable accommodation can be made.

Members Helpline

Any member can volunteer to be on the Members Helpline.
Hardware problems, Win 7, Win 10, Linux and Virus Removal

About DVD of the Month

Unfortunately, the DVD of the Month is no longer creating an income center for the club. August 2022 will be the last issue of the DVD. Starting in September, I will feature a review of a freeware program in the ARI... Some of these programs may be elaborate and complicated others may be very simple. I may include screen shots if that can be accommodated.



Lamp Post 266 March 2024 by John Spizzirri

The bald eagles at Decorah, Iowa (**1**) layed eggs at the North nest on February 15 and 18. The hatch is expected March 21 thru 28. The South nest (**2**) has been taken over by a pair of Candian geese. They have a clutch of six eggs layed between March 9th and 18th. They will hatch within 25 to 28 days. The goslings will be nurtured for a day or two in the nest. When the goslings are prepared by the adults, they will jump from the nest to the ground. That is about a 55 foot drop to the forest floor. Most of the goslings survive as they fall on a bed of leaves with bodies that are very elastic. The Northern Lights (Aurora Borealis) cam at Churchill, Manitoba, Canada (**3**) is pointed at the sky. When the weather is clear, you can see the lights at night. You can check the weather at the polar bear site (**4**). It is off season for polar bear watching. Churchill is in the Central Time zone. If you stay up really late or get up early, try the Alaska Borealis cams (**5**) or Yellowknife cam in the Mountain Time zone (**6**). Two places to try offer various cams from around the world (**7, 8**). The brown bears are hibernating. The videos show highlights of the past. To check on the space weather (for aurora forecasts) try here (**9**) and NASA (**10**).

1) <https://is.gd/0YqTVG>

- 2) <https://is.gd/YAuMF0>
- 3) <https://is.gd/3RjcRQ>
- 4) <https://is.gd/7PDEvO>
- 5) <https://auroranotify.com/?p=63>
- 6) <https://auroramax.com/live>
- 7) <https://seetheaurora.com/webcams>
- 8) <https://lightsoverlapland.com/?p=79>
- 9) <https://www.spaceweather.com/>
- 10) <https://www.swpc.noaa.gov/>

There is a new site where you can test Linux distributions online called Distrosea (**1**). Unfortunately, it only seems to work under Windows. Also, it has a number of ads that must run in order for you to try a distribution. Even with these drawbacks, it may still be worth trying because of the simplicity.

- 1) <https://distrosea.com/>

Shaomin Li wrote an article in The Conversation (**1**) about the Chinese state and TikTok (**2**). He explained that the state does not have to explicitly own or order compliance or spy to get what it wants from any business. The state gets what it wants whenever it asks through any person (agent) it assigns because the consequences of noncompliance are unimaginable. Every once in a while the state makes an example of someone or some business that misbehaves so as to re-enforce the power position of the state. Our Congress is out of its depth in the comprehension of this situation. The 'sale' of TikTok means nothing as the data that the state may have wanted to obtain is already copied to servers in China. Each new user is being evaluated for useful data every minute. The weeks and months it takes Congress to determine whether or not to ban TikTok is just window dressing. The deed is done. They will close the barn door after the horse is gone.

- 1) <https://is.gd/7UNxz9>
- 2) <https://www.tiktok.com/>

Ars Technica reporter, Stephen Clark, wrote about the 40 year old Voyager 1 spacecraft that had a malfunction last November (**1**). At the beginning of March NASA (**2**) engineers were able to figure out what Voyager 1 was telling them so they could work toward a solution. One of the computers was sending the complete Flight Data Subsystem (FDS) memory read out. Before the malfunction it would send information about the spacecraft functions.

- 1) <https://arstechnica.com/?p=2010713>
- 2) <https://www.nasa.gov/>

Between you, me and the LampPost, that's all for now.

A Conversation with BARD
Art Gresham, Editor
Under the Computer Hood User Group
May 2023 issue, DriveLight
<https://uchug.org>
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Two months ago, I published two related articles in the March Drive Light. The first titled "What is ChatGPT and why does it matter?" which briefly introduced the chatbot that had recently been released from OpenAI (<https://openai.com/api/>). That was followed by an article about a subject with which I am quite familiar as an Electrical Engineer (BE EECS).

The second article is "What is Electricity? (Hint, the answer is not what you think)" The initial implication one might get upon starting to read this article with My name as the byline is that I had written about a subject I am familiar with. And I stated I had found the answers to some basic questions. However, as I conclude at the end, the content of these answers was NOT written by me, but by an AI Chat Bot from OpenAI.

Many other AI systems exist, with more being made available, evolving, and moving into new areas of application. The 60 Minutes (CBS) story "The Revolution"

<https://youtu.be/TUCnsS72Q9s> introduced what is going on at GOOGLE. Their chatbot is named BARD.

So I signed up for access and asked Bard the same questions. The results are shown below, unedited. I find them to be quite similar to ChatGPT, as they should when providing factual answers to scientific questions. Equally as accurate, although some are less 'chatty', or perhaps slightly less complete.

(<https://bard.google.com/signup>)

What caused the failure of the first trans-Atlantic telegraph cable?

BARD's Response:

The first transatlantic telegraph cable failed for a number of reasons, including:

- Mechanical problems: The cable was made of a copper wire surrounded by gutta-percha insulation, which was then wrapped in hemp and iron wire. The cable was very heavy and difficult to handle, and it was prone to breaking.

- Electrical problems: The cable was not insulated well enough to

withstand the high voltages that were used to transmit signals. This caused the insulation to break down, which led to short circuits.

- Environmental factors: The cable was exposed to a variety of environmental factors, including salt water, which corroded the copper wire and the insulation.

- The failure of the first transatlantic telegraph cable was a major setback, but it paved the way for the successful laying of subsequent cables. Today, transatlantic cables are an essential part of the global communications infrastructure.

Is electricity actually an EMF wave or movement of electrons?

Electricity is both an EMF wave and the movement of electrons. An EMF wave is a disturbance in the electric and magnetic fields that propagates at the speed of light. When an EMF wave passes through a conductor, it causes the electrons in the conductor to move. This movement of electrons is what we call an electric current.

In everyday electrical and electronic devices, the signals travel as electromagnetic waves typically at 50%–99% of the speed of light in vacuum, while the electrons themselves move much more slowly; see drift velocity and electron mobility. For example, when you turn on a light switch, an EMF wave is generated by the switch. This wave travels through the wires to the light bulb, where it causes the electrons in the filament of the bulb to move. This movement of electrons heats up the filament, causing it to glow.

So, electricity is both an EMF wave and the movement of electrons. The two are closely related, and they both play an important role in the way that electricity works.

Sources info

1. en.wikipedia.org/wiki/Speed_of_electricity

Do electrons move through a DC circuit at the speed of light?

No, electrons do not move through a DC circuit at the speed of light. The speed of light is the speed at which electromagnetic waves travel through a vacuum. In a DC circuit, the electrons move through a conductor, such as a wire. The speed at which the electrons move is much slower than the speed of light. The exact speed depends on the material of the conductor and the strength of the electric field. For example, in a copper wire, the electrons move at a speed of about 1 million meters per second, which is about 0.01% of the speed of light.

The reason why the electrons move so slowly is because they are constantly colliding with the atoms in the conductor. These collisions slow down the electrons and prevent them from moving at the speed of light.

And Bard can provide alternate answers with other details. Here is the Draft 2 of the above question, which is actually more like the way I personally would have expressed it.

Draft 2

No, electrons do not move through an AC circuit at the speed of light. The speed of light is the speed at which electromagnetic waves travel in a vacuum. When an EMF wave passes through a conductor, it causes the electrons in the conductor to move. However, the electrons themselves do not travel at the speed of light. The speed at which the electrons move is called the drift velocity, and it is much slower than the speed of light.

In an AC circuit, the EMF wave is constantly changing direction. This means that the electrons are constantly being pushed back and forth. The average speed of the electrons is zero, but the individual electrons are moving back and forth at a high speed.

The drift velocity of electrons in an AC circuit depends on a number of factors, including the frequency of the AC current, the resistance of the conductor, and the type of material. In a typical copper wire, the drift velocity of electrons is about 1 millimeter per second. This means that it would take about 10 minutes for an electron to travel the length of a 10-meter wire.

The reason why the electrons move so slowly is because they are constantly colliding with the atoms in the conductor. These collisions scatter the electrons, which slows them down. The higher the frequency of the AC current, the more collisions there are. This is why the drift velocity of electrons is lower in a high-frequency AC circuit than in a low-frequency AC circuit.

The type of material also affects the drift velocity of electrons. In a conductor with a high density of free electrons, the electrons are more likely to collide with each other. This also slows them down.

The speed of light is a fundamental constant of nature, but the drift velocity of electrons is not. It can be affected by a number of factors, and it is always much slower than the speed of light.

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End of content written by BARD

total time to research, write, edit 1 hr 27 min



First Day of Spring was on March 19

Windows Drivers – Some Experience Required
Bob Woods, Webmaster
Under the Computer Hood User Group
www.uchug.org
webmasters ** uchug.org

Having retired after 20 years from the US Navy Submarine Service, I spent the next 22 years with Northrup Grumman in the IT department. I spent the first few years as a Windows desktop support technician and later as a server analyst keeping 120 Windows servers built, patched, and online. So, I am used to operating system issues and how to resolve most of the common problems.

I was recently reminded that what may be business as usual for me may not be easy for others. I recently replaced an Acer laptop with a newer unit. The Acer specs included a nice 14" touch screen, Intel i7 CPU, 12 GB of ram, a 250 GB solid-state drive, Wi-Fi, and Bluetooth. Wi-Fi was 802.11g, so it was only capable of the 2.4 GHz band, but I used a USB dongle to get the 5 GHz band for better wireless throughput. The OS was Windows 10, but it did not have the TPM 2.0 required for Windows 11. I decided to donate it to UCHUG for the 2022 Christmas Raffle.

To get it ready, I blew out the OS and installed a fresh copy of Windows 10 but did not configure it. It was at the point where you input a new user account and start the configuration. When you purchase a new PC or laptop, the manufacturer has already installed the correct drivers for the hardware. This ensures the purchaser has no issues straight out of the box. Over time you may even update the operating system to a new version. Since the drivers were already installed in the previous operating system, there should be a smooth transition to the new OS, with updates automatically applied to the drivers as needed. Easy peasy lemon squeezy.

However, what if you must completely blow out the OS and do a fresh installation? Chances are you will get the lemon squeezy without the easy part. This is because Microsoft cannot keep pace with the many manufacturers' hardware changes and drivers. Microsoft instead depends on the PC manufacturers to keep drivers for system hardware available online for download. Even going into the Windows device manager and clicking the automatic driver update option doesn't always get positive results. It sometimes requires going to support at Dell for Dell, Acer for Acer, HP for HP, etc., to get the drivers.

This was the case with the Acer. The new owners finished the installation, and Windows authenticated with Microsoft. But, there was an issue with Bluetooth not working. The Bluetooth chipset driver was either not

installed or incorrect. The owners tried to resolve the issue but were unsuccessful. I received an email outlining the issue. I had not checked the Acer specs other than to note that the chipset was Broadcom. I sent an email response with a link to the Acer support site to download the driver. A few days later, I received word that they tried to download the driver, but nothing seemed to happen, and Bluetooth still didn't work.

I then started to check hardware specs and the format of the drivers on the Acer support site. Acer had used Intel and Broadcom chipsets for Wi-Fi and Bluetooth for the Acer V5 series laptops. I knew from the model specs that a Broadcom driver was required. I also found that the drivers were executable (.exe files) but stored in zip format. Unless extracted, the .exe file would not run properly. I sent another email about the correct driver to download and how to extract and run it. Not knowing the experience level of the owners, I also noted that the application Driver Easy (<https://www.drivereasy.com/>) might be an easier way to go. Microsoft recognizes Driver Easy as a safe and reliable way to update drivers. A free version will scan your drivers, list those out of date, missing, or not working, and download the correct drivers. With the free version of Driver Easy, a manual installation of the downloaded drivers is required. The site has a good set of instructions on manually installing the downloaded drivers (<https://www.drivereasy.com/manual-update/>). To get a completely automated update and installation experience requires purchasing the pro version for \$29.95.

I forwarded that info to the owners to decide how they wanted to proceed. As of writing this article, I have not heard back if they were successful at getting the Bluetooth issue resolved. If they still have issues, I will give them some help.

April Fool's Day is celebrated in different countries around the world on 1st April every year. Sometimes referred to as All Fool's Day. April 1st is not a national holiday, but is widely recognized and celebrated as a day when many people play all kinds of jokes and foolishness.

The day is marked often by the commission of good-humoured or otherwise funny jokes, hoaxes, and other practical jokes of varying sophistication on friends, family members, teachers, neighbors and work associates.

Traditionally, in some countries such as New Zealand, Ireland, the UK, Australia, and South Africa, the jokes only last until noon, and someone who plays a trick after noon is called an "April Fool" and taunted 'April Fool's Day's past and gone, You're the fool for making one.'

Elsewhere, such as in France, Italy, South Korea, Japan, Russia, Holland, Germany, Brazil, Canada, and the USA the jokes last all day.