NOCCC meetings for Sunday September 10, 2023

MAIN MEETING -

Please read: There has been a glitch in the database, please email editor your last renew date!

The presentation for this meeting will be a very interesting video by Dr. Cerf, the real father of the internet, not Gore.

Special Interest Groups (SIGs) & Main Meeting Schedule

9:00 AM – 10:30 AM

Beginners Digital Photography ....Science 129
Questions and Answers about Digital Photography

Linux for Desktop Users....................Science 131
Beginners' Questions about Linux

10:30 AM – 12:00 PM Noon

3D Printing ....Science 127
Questions and Answers about 3D printing

Advanced Digital Photography… ....Science 129
Questions and Answers about Digital Photography

Linux Administration ....Science 131
More topics about the Linux operating system

Mobile Computing ....Science 109
We discuss smart phones, tablets, laptops, operating systems and computer related news. **We need a new leader.**

12:00 PM Noon – 1:00 PM

3D Printing…………………………………… Science 127
Questions and Answers about 3D printing

PIG SIG ………………………………….. Irvine Courtyard
Bring your lunch. Consume it in the open-air benches in front of the Irvine Hall. Talk about your computer and life experiences.

1:00 PM – 3:00 PM Main Meeting
See above

……………..…….. Science 131

3:00 PM – 4:00 PM

Board Meeting……………………………………………
Science 129

Verify your membership renewal information by checking your address label on the last page. Not right, speak.

Mark your calendars for these meeting dates
2023: Sep 10, Oct 1, Nov 5, Dec 3,
2024: Jan 7, Feb 4, Mar 3, Apr 7, May 5, Jun ?

Coffee, cookies and donuts are available during the day in the Irvine Hall lobby.
Food and drinks need to remain outside the Irvine Auditorium.

"Friends Helping Friends"
since April 1976

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Special email addresses
Jim Sanders is editor@noccc.org
membership@noccc.org

Our Website
WWW.NOCCC.ORG

Reminder: Membership expiration dates have been advanced by two years. So if your membership expired in Nov, 2020 it is now Nov., 2022. Or to put it another way, your membership renewal is now past due. In the address label area of the Orange Bytes is your join month/ expiration month.

Reprint Policy

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Board of Directors

Editor's Report

ODDS and ENDS

One of the sections of NOCCC.ORG that seems to be over looked by most members is the Links sections. There actually four Links sections. The new Links, the old Links, the Useful Links, and the Other Clubs Links. The Other Clubs Links were looked at last month and it was sad how many the government Covid lockdowns killed. Not to mention the tens of thousands of businesses. Anyway , under Old Links you will find "Paperboy, The." Links to >5460 newspaper Web sites from all over the world. Advanced features available for a nominal fee. Check it out! Be careful outside major Western countries. Check out: https://liveuamap.com/

How do we tell truths that might hurt?

Edsger W.Dijkstra, 18 June 1975

from

Sometimes we discover unpleasant truths. Whenever we do so, we are in difficulties: suppressing them is scientifically dishonest, so we must tell them, but telling them, however, will fire back on us. If the truths are sufficiently impalatable, our audience is psychically incapable of accepting them and we will be written off as totally unrealistic, hopelessly idealistic, dangerously revolutionary, foolishly gullible or what have you. (Besides that, telling such truths is a sure way of making oneself unpopular in many circles, and, as such, it is an act that, in general, is not without personal risks. Vide Galileo Galilei.....)

Computing Science seems to suffer severely from this conflict. On the whole, it remains silent and tries to escape this conflict by shifting its attention. (For instance: with respect to COBOL you can really do only one of two things: fight the disease or pretend that it does not exist. Most Computer Science Departments have opted for the latter easy way out.) But, Brethren, I ask you: is this honest? Is not our prolonged silence fretting away Computing Science's intellectual integrity? Are we decent by remaining silent? If not, how do we speak up?

To give you some idea of the scope of the problem I have listed a number of such truths. (Nearly all computing scientists I know well will agree without hesitation to nearly all of them. Yet we allow the world to behave as if we did not know them....)

- Programming is one of the most difficult branches of applied mathematics; the poorer mathematicians had better remain pure mathematicians.

- The easiest machine applications are the technical/ scientific computations.

- The tools we use have a profound (and devious!) influence on our thinking habits, and, therefore, on our thinking abilities.

- FORTRAN --"the infantile disorder"--, by now nearly 20 years old, is hopelessly inadequate for whatever computer application you have in mind today: it is now too clumsy, too risky, and too expensive to use.

- PL/I --"the fatal disease"-- belongs more to the problem set than to the solution set.

- It is practically impossible to teach good programming to students that have had a prior exposure to BASIC: as potential programmers they are mentally mutilated beyond hope of regeneration.

- The use of COBOL cripples the mind; its teaching should, therefore, be regarded as a criminal offence.

- APL is a mistake, carried through to perfection. It is the language of the future for the programming techniques of the past: it creates a new generation of coding bums.

- The problems of business administration in general and data base management in particular are much too difficult for people that think in IBMerese, compounded with sloppy English.

- About the use of language: it is impossible to sharpen a pencil with a blunt axe. It is equally vain to try to do it with ten blunt axes instead.

- Besides a mathematical inclination, an exceptionally good mastery of one's native tongue is the most vital asset of a competent programmer.

- Many companies that have made themselves dependent on IBM-equipment (and in doing so have sold their soul to the devil) will collapse under the sheer weight of the unmastered complexity of their data processing systems.

- Simplicity is prerequisite for reliability.
[Handwritten annotation]

- We can found no scientific discipline, nor a hearty confession on the technical mistakes of the Department of Defense and, mainly, one computer manufacturer.

- The use of anthropomorphic terminology when dealing with computing systems is a symptom of professional immaturity.

- By claiming that they can contribute to software engineering, the soft scientists make themselves even more ridiculous. (Not less dangerous, alas!) In spite of its name, software engineering requires (cruelly) hard science for its support.

- In the good old days physicists repeated each other's experiments, just to be sure. Today they stick to FORTRAN, so that they can share each other's programs, bugs included.

-

Projects promoting programming in "natural language" are intrinsically doomed to fail.

Isn't this list enough to make us uncomfortable? What are we going to do? Return to the order of the day, presumably.......

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18th June 1975
prof.dr.Edsger W.Dijkstra
Plataanstraat 5
Burroughs Research Fellow
NUENEN - 4565
The Netherlands
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PS. If the conjecture "You would rather that I had not disturbed you by sending you this." is correct, you may add it to the list of uncomfortable truths.

For a long time, when something went wrong with the OS, Safe Mode has been a trouble shooting option. It will load the operating system with reduced functionality. That means the loading of device drivers, the processing of some system files and stopping specific services, eliminates a number of possible trouble sources. Save Mode makes it easier to remove files that may be causing system instability or booting problems. It makes troubleshooting PC software and sometimes hardware problems, easier by only loading the minimum components of the OS. A number of diagnostics require this configuration.

The hitting of F8 at boot method of starting Safe Mode, which has been SOP dating back to at least Windows 95, changed with the release of Windows 8. The introduction of the UEFI BIOS expanded the ability to boot from different devices. Most Windows functions have multiple paths to execute. Safe Mode in Windows 10 has six of them.

Well, technically you could say one more if your Win10 computer is old enough to have a legacy BIOS and a rotating platter-based hard drive, you might be able to start Safe Mode in Win10 using the F8 or Shift-F8 keyboard shortcut during boot. The UEFI BIOS design and solid-state drives means the window for hitting F8 is tiny. This means Windows 8 and later makes it almost impossible to interrupt the boot process by pressing F8 or Shift-F8.

1- Settings
1.   From the desktop, click on the Start button > Settings > Update & Security > Recovery.
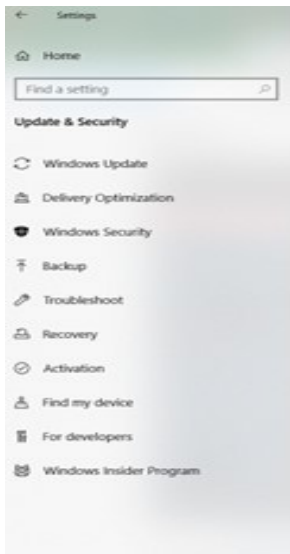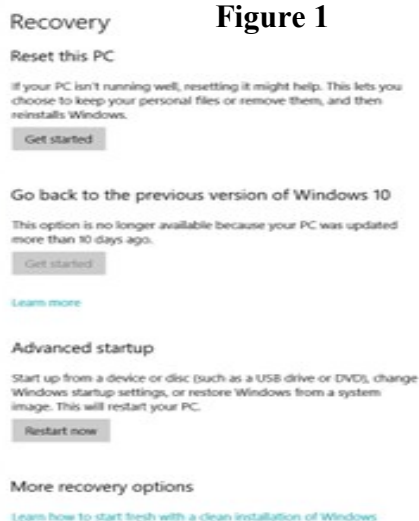2.   Under Advanced startup, select Restart now (**Figure 1**).

Figure 1

3- A list of options will pop up after the device restarts. Chose option 4 to boot into Safe Mode. If internet access is needed, select option 5 to boot into Safe Mode With Networking.

2- System configuration
1-From the desktop, click in the search bar. Enter msconfig and press Enter to launch the System Configuration app.
2- Click on the Boot tab, under Boot options, click the Safe Boot checkbox, then click the Minimal option (**Figure 2**).
Figure 2
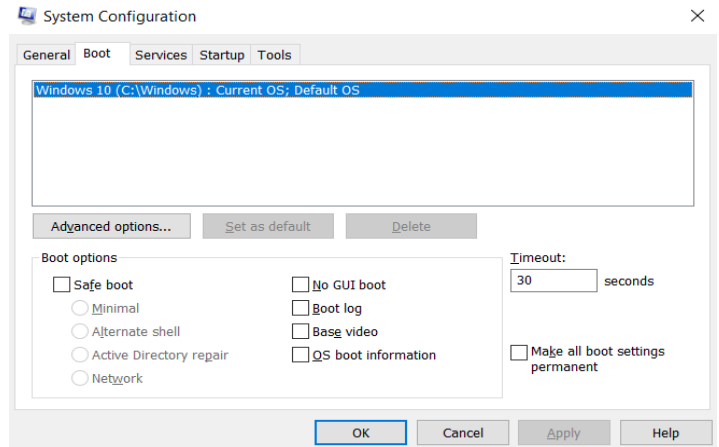
Select the Minimal Safe Boot option in the System Configuration Boot menu.
3 - Click OK, and you'll be prompted to Restart or Exit Without Restart. Click Restart, and Windows will reboot and enter Safe Mode automatically.

3. Logon screen
1 - At the logon screen, at the bottom right corner, click on the power icon. Three options appear, Sleep, Shut Down, Restart. Hold down the Shift key and click on Restart.
2 - Once the device restarts, you will have four options to choose from. Continue, Use a device, Troubleshoot, Turn off your PC. Select Troubleshoot. A new screen appears with two options, Reset this PC and Advanced options, click on Advanced options. Another new screen appears with six options, click on Startup Settings. A new screen, "Startup Settings", appears with a list of seven example options. Click on Restart.
3 - The device will restart a second time, and display a list of 9 options. Choose option 4 or 5 to boot into Safe Mode or Safe Mode With Networking, respectively.

4. Windows Recovery Drive
1 - Create a recovery drive on USB or DVD by using the Recovery Drive app.
2. - Reboot the computer, and boot to the USB or DVD recovery drive.
3. - Windows will want to know your keyboard layout and your preferred language.

4. - Select Troubleshoot > Advanced options > Startup settings > Restart.
5. - After the reboot, you choose from several boot options. Select option 4 to boot into Safe Mode, option 5 to boot into Safe Mode With Networking or option 6 to boot into Safe Mode With Command Prompt.

5. Automatic Repair mode
1 - If the computer fails to boot three times in a row, Windows 10 will boot to Automatic Repair mode on the fourth attempt.
2 - Windows will then diagnose your PC and prompt you with the Automatic Repair screen. Click on Advanced options > Troubleshoot > Advanced options > Startup settings > Restart.
3 - When the computer compleats the reboot, it will prompt you to choose from a list of boot options. Select option 4 to boot into Safe Mode or option 5 to boot into Safe Mode With Networking.
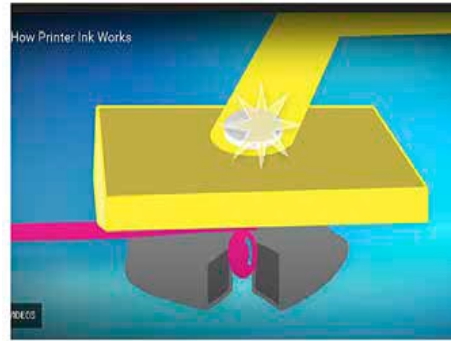
6. Windows 10 installation media (DVD or USB)
1 - Boot your computer to the installation you choose. At the Windows Setup screen, click Next.
2 - On the next screen, click on Repair Your Computer to bring up the options screen.
3 - Select Troubleshoot > Advanced options > Command prompt.
4 - At the command line, enter the following command: bcdedit /set {default} safeboot minimal. Then press Enter to execute it
5 - If the operation succedes and you get a new command prompt, close it and select Continue to exit and boot into Safe Mode. **END**

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Kinds of inkjet printer ink cartridges explained   An APCUG article

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By Jeff Wilkinson, President, Sun City Summerlin Computer Club
https://www.scscc.club • pres.scscc (at) gmail.com

There are two methods of ink deposition that are widely used in household inkjet printers: thermal bubble and piezoelectric. Thermal Bubble Printing Inkjet printing technology was proposed as early as 1960 and became commercially available in the early 1980s in the Canon Bubblejet and the HP Digital Printer. In March 1993, Epson entered the inkjet printer market with Micro Piezo inkjet technology using a piezoelectric crystal in each ink nozzle. With the bubblejet technology, current is passed through a resistor in the nozzle path, heating the ink, vaporizing it, and depositing a small amount of ink on the media. As a result, a slight vacuum is created, drawing more ink into the nozzle for the next cycle. This happens as often as 36,000 times per second. Using "bubblejet" technology, the typical ink cartridge has hundreds of tiny holes or nozzles, about 15 microns in size. The precision digital manufacturing process ensures the nozzles are correctly sized and placed on the printhead for correct placement of the ejected drops. As small as 4-picoliters, the tiny ink drops are launched through these precision nozzles.
A picolitre is a millionth of a millionth of a liter! As many as 32 drops of ink are used to produce each color dot, and images may contain thousands upon thousands of dots. Therefore, the chemical formulation of the ink is very important, and poorly formulated inks may cause clogging or oxidation on the printhead nozzle. Partially because of the complexity and development costs and a somewhat captive market, the price of inkjet cartridges was initially quite high. This spawned a compatible cartridge market in which vendors, big and small, qualified and not so qualified, began offering replacement inkjet cartridges. However, their only option was to refill inkjet cartridges with the existing patents since a replacement could not be legally manufactured. This created a secondary market for empty inkjet cartridges with various recycling and collection schemes used to get cartridges to refill. As the compatible market matured, the OEM manufacturers added protection in the form of a semiconductor chip used to prohibit non-OEM cartridges. Of course, workarounds appeared almost immediately, and the back and forth battle has been going on for many years. There is no question the best quality comes from OEM ink cartridges. Still, many users feel that the cost/quality ratio is too high for everyday printing and opt for compatible cartridges. Furthermore, since the printing functionality comes almost entirely from the cartridge, a faulty cartridge can be replaced and renew the entire imaging system. Piezoelectric Printing Epson inkjet printers use the piezoelectric process in their printers. With this process, the printer contains the printheads rather than the printheads being part of the cartridge. Printheads have a piezoelectric element in the printer that contracts when a voltage is applied. The element and vibration plate move, much like the loudspeaker's cone, and force out a precise amount of ink out of the nozzle. This eliminates the need to heat the ink to create a bubble, reducing the

complexity of the ink formulation. Printheads with 128 black nozzles and 192 color nozzles (64 for each color) produce a resolution of 720 dpi, for example. Since the ink does not need to be heated, it can be tailored to the media to which it is applied, in many cases giving more flexibility to the ink formulation. The internal printheads contain rows of these elements, which fire at precisely the right time, releasing the correct amount of ink as many as 40,000 times per sec-

The contracting piezoelectric element moves the vibration plate
Piezo element — Vibration plate
EPSON
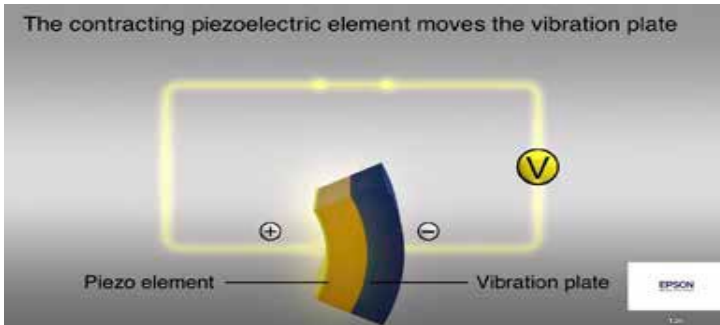
ond! Since the ink cartridges for these printers do not contain the printhead, they are easier to duplicate, and many compatible cartridges are available. However, once again, the manufacturer has countered these efforts with onboard chips which warn you about the use of third-party inks. Printer manufacturers have made
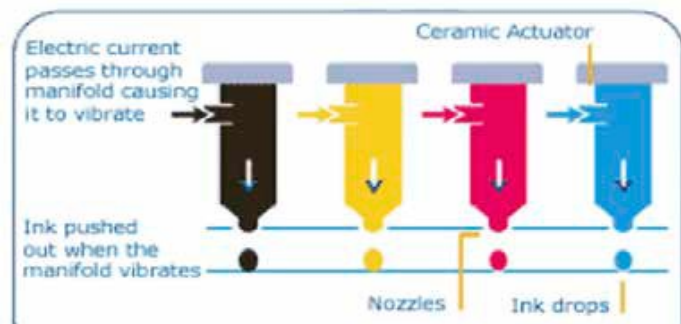
numerous attempts to use firmware and onboard chips that won't allow the use of third-party inks and multiple corresponding class-action lawsuits against these actions. Each user has to choose which ink cartridges
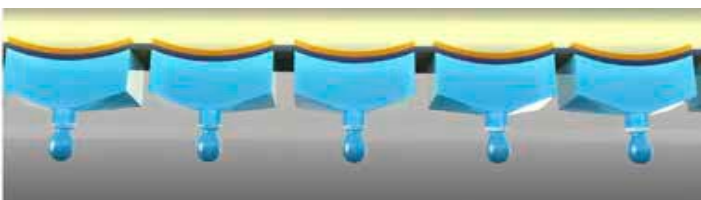
to use but armed with some understanding of the printer ink systems you can add, make a more informed decision. APCUG Article By Jeff Wilkins

Editors note: The Epson brand of "tank" printers seem to be the printer of choice if the cost of ink matters to you. This is particularly true if you do large amounts of color printing.

Who's watching you? A VPN can block intrusion

By Kurt Jefferson, Editor, CKCS Newsletter
https://ckcs.org/ • lextown2 (at) gmail.com   An APCUG article

More Internet users are relying on VPNs – apps called Virtual Private Networks – that keep your Internet activity from prying eyes – than ever before. As more of us pay our credit card bills online, buy tickets from online travel agencies, and read our email, it's clear online privacy is getting much more attention. Most Americans are unaware that in 2017, Congress passed, and the president signed a bill trashing an F.C.C. rule. That rule would have required Internet providers to get permission from customers before selling their web browsing history and other private information to advertisers, ad agencies and others. Instead, Internet providers are free to sell your personal data, despite your objections. Isn't this backwards? Shouldn't you be able to decide who sees your browsing habits, your email, the banks with whom you do business, and your Social Security number? Personal information such as which illnesses you've searched in a web browser, where you bank, where you shop, and potentially even where your child or grandchild goes to school can now be accessed by the company you pay for Internet service. To prevent this, more and more of us are paying for VPNs to keep prying eyes away. The COVID–19 pandemic is having a major impact on VPN use. "When the pandemic hit in 2020, VPN demand skyrocketed, driven by the increased use of internet-based services at home, and the evolution of remote work. During the first two weeks between March 8th and March 22nd alone, VPN usage in the USA increased a massive 124%," reports Findstack. A blog called The Cornwall Seeker writes, "A decade ago, Only a third of Americans and 20% of the people in the U.K. knew what a VPN was. Now, 68% of all adults in the U.S. use a VPN according to security.org." A poll by Associated Press-NORC Center for Public Affairs Research and Meritalk reveals that most Americans believe their personal online information is not at all secure. Most polled believe social media activity such as Facebook, Twitter or Instagram is not very or not at all secure. 50% say private text conversations lack privacy. In addition, many are not satisfied with the federal government's total lack of action. Nearly 75% of those polled support establishing national standards for how companies can collect, process and share personal data. The Associated Press quotes Sarah Blick, a professor of medieval art history at Kenyon College in Gambier, Ohio, northeast of Columbus as saying, "I feel there is little to no security whatsoever." Earlier this year, the college's human resources department told Blick that someone fraudulent-

ly applied for unemployment insurance benefits in her name. As we spoke about during the September Tech Night Zoom session, VPNs can keep your online activity secure – but only if you use them on all of your Internet devices. If you missed Tech Night, check out A Beginner's Guide to Understanding VPNs. If you're ready to choose a VPN, see what Top10VPN considers its best VPN services. Tom's Guide lists its top choices in the best VPNs. Because so many Americans (and Internet users all over the world) are currently considering a VPN, it's a very competitive market. As I mentioned during Tech Night if you can afford it, you can get better pricing if, rather than buying a VPN for six months or one year, you pay for a two- or three-year period. What To Look For In a VPN Security & Privacy: As one website says, "A VPN is only as good as its ability to keep you and your data safe." Speed: Since a VPN is rerouting your Internet connection through its own private servers, if there aren't enough servers Ayour speed can suffer. The best VPNs have vast networks all over the world. If you cannot connect to one server because too many people are connected at the same time, you simply choose another server. Ease of Use & Customer Support: It should be as simple as moving a slider button on your phone or double clicking a tab on your Mac or PC to activate a VPN. If you have trouble with a VPN – or questions – the company needs to provide customer support. Period. Performance & Server Locations: The more servers there are, the better chances you have to connect to your VPN if there's congestion. If you cannot connect to a server closest to you, then there should be one fairly close by. (Connecting to a VPN server in St. Louis or Virginia rather than St. Croix or Germany or Australia will typically give you faster Internet speed from your computer, phone, or iPad in Kentucky.) Price: Find a VPN that you can afford. Avoid free VPNs. Many of them generate revenue by displaying plenty of ads. So, as you're trying to use the Internet, you're constantly disrupted by ads. Free VPNs often have few servers, and it might be a challenge to find one located near you. What you might not know is that many free VPNs use your computer's processing power when it's not in use. In addition, your activity might be tracked, your browsing details may be sold, and your Internet connection is often slow. Also, it's been discovered that China owns a number of free VPNs. Do you really want your personal Internet data going to Chinese authorities? No Logging: The best VPNs will not track your web browser visits, your email, your social media usage, or other Internet activity. VPNs that do track your activity usually have one goal in mind: Making money. They want to sell your personal data. "One quarter of all Internet users have accessed a VPN in the last month," wrote Rob Mardisalu on the thebestvpn.com website in January 2020.

Here's a breakdown by device: Desktop: 17% (had used a VPN in the last month as of Jan. 2020.) Mobile: 15% Tablet: 7% For some, using a VPN was as common as washing their hands. bestvpn.com reports in early 2020, 35% of desktop computer users and 42% of mobile users (phones, laptops, iPads) had used a VPN every day. VPN Users by Age (source: thebestvpn.com) 55-64 years old: 4% 45-54: 9% 35-44: 19% 25-34: 33% 16-24: 35% The Asia–Pacific region has the highest number of VPN users (30%), while North America and Europe lag with far fewer VPN users (17%). It turns out retaining anonymity (and keeping personal data private) is the strongest motivator to use a VPN in: the USA, Sweden, Canada, France, Japan, Germany, and South Africa. In other countries, folks use VPNs to stream TV shows and movies that have not yet been released or are off limits in those regions. In China and Russia, reporters use VPNs to get around repressive, dictatorial Internet restrictions. Need more details? There are a number of websites that describe VPNs in simple English so that all of us can decide what's best for us individually. Here are some links providing details, descriptions, and information about VPNs that are easy to digest: How–To–Geek: https://www.howtogeek.com/133680/htg-explains-what-is-a-vpn/ Tricky Enough: https://www.trickyenough.com/use-a-vpn/ Forbes Advisor: https://www.forbes.com/advisor/business/ software/ why-use-a-vpn/ This article originally appeared in the October 2021 Issue of the CKCS Newsletter.

A LITTLE HUMOR

A recent study has found that women who carry a little extra weight live longer than the men who mention it
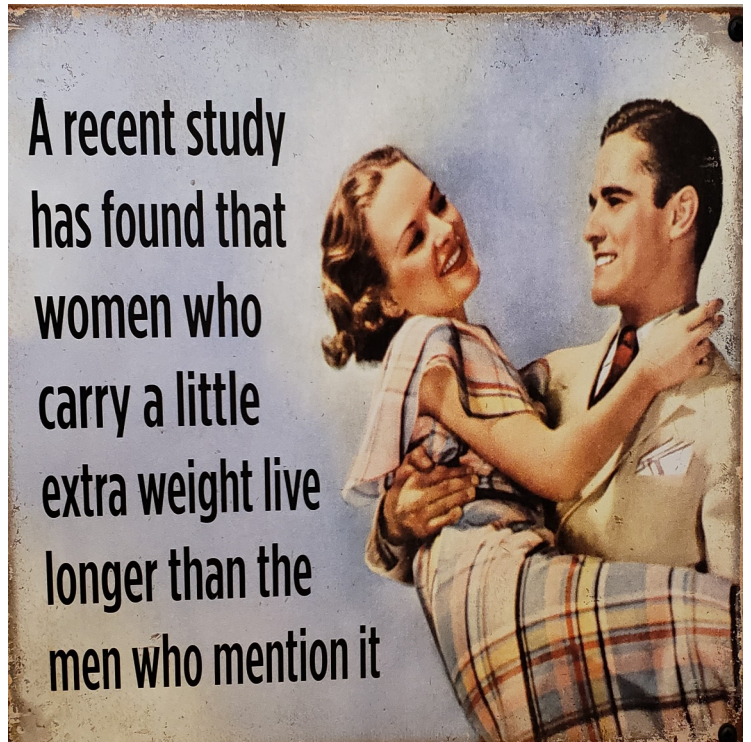
Membership Level ($)	1 Year	3 Years
Individual Member	35	90
Each Additional Family Member	15	40
Full-Time* Enrolled College Student	20	
Enrolled High School Student	15	

*Minimum 12 Semester Hours

Directions to the NOCCC meeting location

Business Member + Ad (Business Card)	180
Business Member + Ad (¼ Page, ½ Page)	465, 800
Business Member + Ad (Full Page)	1,475
Contributing Member	75
Supporting Member	100
Advocate Member	250
Patron Member	500

Enter CA-55 N (Costa Mesa Freeway) crossing Interstate 5 toward Anaheim/Riverside for 9 miles.   *Notice freeway and street signs stating "Chapman University."* Exit toward E Chapman Ave. Turn right onto N Tustin St.   Turn left onto E Walnut Ave.

1) Turn left past N. Center St. for the **best place to park** in the underground parking structure (Lastinger under the sports field).Pay the small fee ($2) to park Ask members or help@noccc.org about parking details, restrictions, and our price break!

2) Turn left onto N Center St. On the right is the Hashinger Science Center, 346 N Center St. Orange California. Parking on the University side is free. Parking on the residential side is a city violation that may cost you a tow away and a ticket!