

User Friendly

LACS
A Computer and
Technology
User Group

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www.youtube.com/apcugvideos



An International
Association of Technology
and Computer User Groups

MARCH 10 GENERAL MEETING

Topics: **Financial Software: TurboTax and Quicken**

Speaker: **Stephanie Nordlinger**, LACS Vice President and a long-time user of TurboTax and Quicken.

Being organized about your finances is essential. These two inexpensive programs can be very helpful. There are different versions depending on your needs—even free online simple TT tax returns. You can save money on accountants and tax preparers if you have properly recorded, organized data. You can look at alternatives (budgeting, taxable transactions, etc.), plan for expenditures, write checks, pay bills, calculate your net worth, and create numerous reports. Quicken can quickly go to your broker's website to update your records of transactions and prices. You can search for past purchases or expenses for any reason.



On Tuesday, April 14, a panel of members plan to discuss QuickBooks, Money, and using a spreadsheet to keep track of your finances. Later in the year, we plan to discuss purchasing and banking online and investment information on the Web.

Meet Your Presenter

Stephanie has been in LACS from its incorporation in 1991. She has been its President, Editor of *User Friendly*, and is now its Vice President. A retired attorney, she has used Quicken since 1988 for business and personal purposes and TurboTax for a number of years.

Tuesday, March 10, 7:30 - 9:00 PM
Westchester United Methodist Church
Fellowship Hall

8065 Emerson Ave., Westchester, 90045
6:30 to 7:20 Social Time and an Informal Q & A
 Roundtable to Answer Individual Questions

7:00 to 7:30 Refreshments

More info: www.lacspc.org or 310-398-0366

FROM YOUR PRESIDENT / EDITOR

Fact Of The Day

According to the Hitchhiker's Guide to the Galaxy, the answer to life, universe, and everything is the number **42**. Why did author Douglass Adams choose that number? There is some logic behind it. In the world of coding and computer programming, the number 42 is used to represent the asterisk (*). What does the asterisk represent? It represents an undetermined quantity that can be whatever you want. Hence, the answer to life, universe, and everything is **whatever you want it to be**.

Internet History

The network we now know as the internet had its beginnings at UCLA. UCLA is celebrating its 100th anniversary this year, and the internet its 50th. This milestone forever changed the world.

On October 29, 1969, UCLA Professor Leonard Kleinrock and his graduate students were preparing to send the first message over what would become the internet. The word was "Login". After they entered the first two letters, "LO", the network crashed and went dark. But the message was received at the Stanford Research Institute and a new era began. At that time, could Professor Kleinrock have imagined how that moment would transform our lives and change the world?

Last year, the UCLA Samueli School of Engineering hosted a conference to honor the legacy of that first online transmission. At the conference, Professor Kleinrock said that things changed in 1994, shortly after the World Wide Web was formed, and the first spam email went out. People saw an opportunity to exploit the internet for personal gain. He said that we must work to find workable solutions that ensure a more open internet for all.

Winter Virtual Technology Conference

Another Saturday morning was dedicated to learning with the APCUG Virtual Technology Conference on February 8. I thank all those who make these conferences possible.

The first session I attended was on "The Browser – Your Most Important App." The primary function of a web browser is to render HTML, the code to design webpages, to enable us to access content on the internet. Hewie Poplock showed a lot of things we can do to personalize our browsers, including syncing between devices, saving passwords, adding extensions like AdBlocker, Web of Trust (WOT), Grammarly, and Evernote. He said Firefox is similar to Chrome, and he talked about the new Edge Browser that is based on Chrome. He covered a lot more in one hour.

The second session I attended was with Ron Brown on "What will 5G mean to you?". He explained the advantages and disadvantages of 5G. Many more towers will be needed; small cell towers can be mounted on lamp posts. The waves do not go through buildings and the spectrum is between that of radio and microwaves. So Ron, a physician, isn't worried about health risks with 5G. There has been no increase in brain cancer in the last 20 years. Ron recommends waiting two to three years before purchasing a mobile 5G phone. But, there are now good deals for fixed-based 5G, and you should sign up now if it has come to your neighborhood.

The last session I attended was on "Creating a Podcast for Your Group" by Michael Crose. Michael showed what is needed to make a podcast: a microphone, a mixer, and software. He also discussed album cover art, hosting, marketing, and setting up a podcasting studio. Most of this was above what we need to make a podcast of a general meeting.

Go to www.apcug2.org to see the PowerPoints for these sessions and for three more.

GENERAL MEETING REPORT



February 11, 2020

By **Leah Clark**, LACS Editor and President
Windows 10, Part II

Speaker: **Jim McKnight**, LACS member

Jim started his presentation by asking if anyone had questions about anything covered last month in Part I. In answers, he gave more details on how to customize the desktop and make other changes to make the computer easier for individual use.

He talked more about **Ease of Access**, where you can make changes in the thickness of the cursor and the scroll bars, make everything bigger, or adjust audio settings.

You need to experiment with the various options. Click on **Start**,  **Settings**  to get to these

functions. See the screen shot on page 3 of the February issue of User Friendly.

In **Update and Security**, you can only pause updates for seven days. Under **Delivery Optimization**, Jim wants “Allow downloads from other PCs” to be off; he doesn’t want his PCs to talk with each other. There’s **Troubleshoot** for help if you have problems with Windows 10. In **Location**, under **Privacy**, You may be able to find your laptop if it’s lost or stolen. You can choose which apps can access your location.

For mouse settings, go to **Device, Mouse**, or better, go to the **Control Panel** and click **Mouse**. From there, you can adjust the double click speed or select a pointer speed. Jim turns off **Tap to Click** to avoid accidental tapping.

Jim showed how to put a folder on the desktop to organize a clutter of icons, and how to put shortcuts to URLs on the desktop. Right-click on a folder or icon to delete it. Go to the Recycle Bin to restore a deleted item.

Jim then talked about the new Edge browser, Edge 80, which is based on Chrome. It may

have automatically installed. If you want to get it now, Google “Microsoft.com Edge 80” for the download screen.

Anytime you install a new program, it will become the default. Go to **Start, Settings, Apps, Default Apps**, to change defaults. Jim prefers to not use a new browser until it has been out six months to a year.

To show file extensions go to **Control Panel, File Explorer Options, View, Do not hide extensions for known file types**.

To make the items in a folder look bigger, open the folder, click on **View, Extra large icons**. You can sort the items by date, size, and more.

Go to **Start, Settings, Privacy** to select your privacy settings. There is an extensive list under **App Permissions** where you can make privacy choices. Under **General**, you can turn off letting apps make ads based on your activity and other items. Under **Location, Camera, and Microphone**, you can choose which apps can access your location or to allow or deny apps access to the camera and microphone. Under **Account info**, you can disallow apps to access your accounts.

The website, ShouldIRemoveIt.com helps you to decide what should be removed from your computer.


You can drag windows to make them small to fit more than one on the screen. If you don’t like this, go to **Start, Settings, System, Multitasking** to turn **Snap windows** off.


Jim turns off most notifications. To do that, go to **Start, Settings, System, Notifications & Actions**. Some should be left on, for example, a notification that it’s safe to eject something plugged into a USB drive.

System Protection is also called **System Restore**. Go to **Control Panel, System, System protection**. If you plan to do something you think may be risky, create a

System Restore point before doing it.

Do a **Control, Alt, Delete** or right-click on the **Taskbar** to get to **Task Manager** to see what's running on your computer. Click on **More details** to get much detailed information about what's running on your computer. Google items you're not familiar with, to see if they can be disabled if your computer is running slow.

One Drive is cloud storage – Microsoft's version of Dropbox. Every time you boot up Windows 10, One Drive pops up. If you don't use it, right-click on the One drive icon  in the notifications area, go to the Settings tab and uncheck "Start One Drive Automatically when I log in to Windows." Uninstalling One Drive may be risky because it's part of Windows 10.

Winaero Tweaker  is a free utility that can make text bigger and bolder, spread icons out, make scroll bars wider, make title bars easier to read, and many other useful tweaks to Windows 10.

Microsoft may change your preferences back to their defaults when they do an upgrade.

Windows Defender  is a good antivirus.

See Jim's Windows 10 Self-Help Tips on his website at www.jimopi.net for more information on all the topics he covered in this outstanding presentation. There was more than what I covered here. ❖



SMART DEVICES IN THE HOME – WITH VOICE CONTROL

By **Phil Sorrentino**, Contributing Writer
The Computer Club, Florida

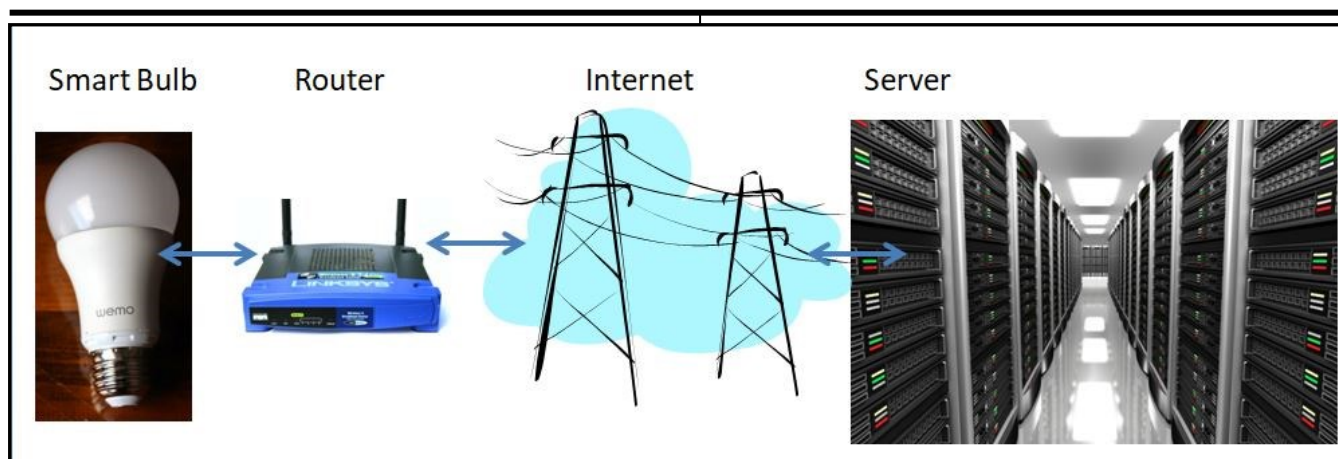
September 2019

www.sccccomputerclub.org

Philsorr (at) yahoo.com

There are a whole host of smart devices available for use in the home now. Some of the most basic and least expensive ones are smart bulbs, smart plugs and smart cameras. Yes, I know cameras can be expensive, but there are some fairly inexpensive indoor-only cameras. First of all, what makes these devices smart? Well, as I have alluded to in previous articles, it's all about Client-Server technology. The devices have some limited intelligence in them. Read "intelligence" as basic processing power, downloadable firmware, and wi-fi electronics. This allows them to be able to communicate with a local wi-fi router, which in turn allows them to access the internet. Once they can access the internet, they can take advantage of the servers on the internet (sometimes referred to as "in the cloud"). The intelligence in the accessed server is where all the magic happens. Here read "intelligence" as very fast, very powerful, server computers capable of handling millions of requests for service per second. So it's the combination of the smart device, the internet, and the server that really makes the smart device "smart".

Once you have your smart device ready for installation, it is the App on your smartphone that takes over and steps you through the installation process. (Yes, a smartphone is required for the installation, either Android or Apple.) The App that you will use for installation will be the App from the specific smart device manufacturer. So for example, if you have a TP-Link smart bulb, you would have to get the TP-Link App for your smartphone. In this example, that would be the "Kasa" App.



Similarly, if you have a Wyze smart bulb, you would use the Wyze App for the installation. These Apps are free and are intended to work with the servers from the specific manufacturer. So just as an aside, think about this. If the company that operates the server, the smart device manufacturer, goes under and the server goes away, your smart device will no longer be smart. The bulb may not even be able to be turned on if there is no server to command it to turn on.

The installation process is usually pretty easy; after all, it's the App that is doing all the work. The first thing you have to do is get the device ready for installation. The App will usually start this by having you select something like "add a device" or "add a product," or maybe you just have to select the "+" on the screen (as found on the Kasa App) to add a device. You will have to let the App know what type of device you are adding. This is usually done by just selecting the device type from a list of device types manufactured by that specific manufacturer. Once the device type is selected, you are ready to go into the setup mode. The App will give you instructions for getting the device into the "Setup" mode. On a smart plug with a push-button switch, it is really easy because pushing the button as directed by the App will get the smart plug ready for installation. With a smart bulb, usually you quickly turn the power



on and off maybe three times and the smart bulb goes into the Setup mode. You will know the device is in setup mode when whatever you were watching changes. With a smart bulb, the light may start to pulsate slowly, with a smart plug, the small light on it may blink or change color. Once the device is in the setup mode, it will need to know the name of your wi-fi network and the password for that network. (Note: some devices only support 2.4 GHz networks; not 5 GHz networks.) You may have to use your "Settings App" on the smartphone during the setup; just follow the directions from the App. Once you enter the wi-fi network name and the network password, you may see a timer count down for a few seconds till the installation is complete. Finally, you will be asked to name the smart device, something like "desk light" or "bedroom plug." (Keep in mind that each manufacturer's App will be a little different, this is just a general example.) The installation may seem complex but after you have done it once or twice, it will probably become automatic. However, you might want to keep those instructions that you get with the device in a safe, convenient place because you might have to go through the whole process again. (Before I lose the instructions, I scan them into a file and place the file in a "Home Automation" folder so I can review the directions when I have to do another installation. This was recently necessary when I changed my router and the

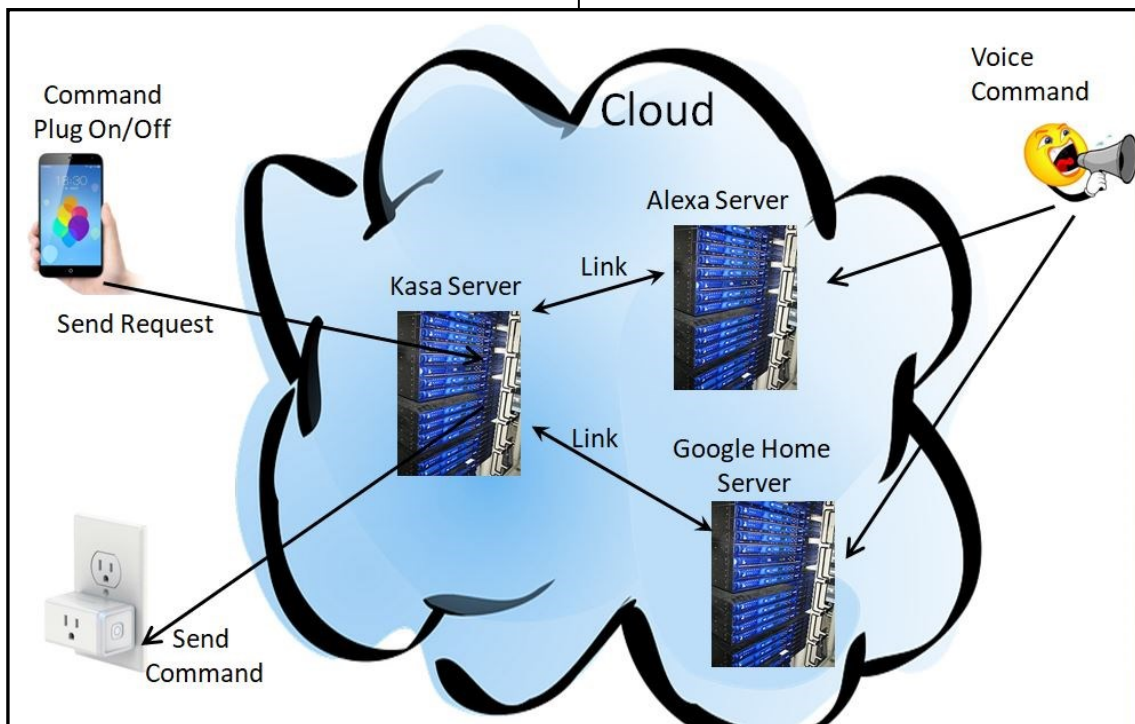
new wi-fi network had a new name and new password. This forced me to reinstall every device that used the house wi-fi. At the time, I had seven smart devices that had to be reinstalled. So now with the smart device installed, you can control it from your smartphone App. Typically, you can turn it on and off and maybe even set up a schedule.

Once the device is installed and working, it's time to move on to voice control. Voice control is supported by Amazon's Alexa and Google's Google Home. You can use either of these or both. Amazon calls the link between Alexa and smart devices "skills". Google Home refers to them as "links". In either case, you need to have the appropriate App on your smartphone; the "Amazon Alexa" App for Alexa, and the "Home" App for Google Home. Again, the Apps are free and available for Android and Apple.

Once you have the appropriate App, you just

have to follow the instructions to link your smart device. Typically you will have to select the type of device and the device manufacturer. On Alexa, this is started by selecting the "+" on the "Devices" screen and then selecting "Add device," and then the type of device, and then selecting the manufacturer of your device from a list of manufacturers. To make sure you are linking "your Alexa" to "your smart device," the App will require the Username and Password for the manufacturer of your smart device.

So, as a general rule, make sure you know the Usernames and Passwords for all of the manufacturers of the smart devices that you use. Once you have authenticated yourself with your Username and Password, a link will be made between the Alexa server and the smart device manufacturer's server. And now you can control the smart device, at least to the extent that the skills allow, by voice control. Now enjoy the feeling of power. ❖



RESEARCH BEFORE ONLINE SHOPPING

By **Richard Durand**, President
Wisconsin All-computer Users Club, WI
WAUCtalk, June 2019
<https://www.wauc.us>
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As the old saying goes, “When the going gets tough, the tough go shopping.” Here in the 21st Century, we don’t have to be as tough to be shopping because now a lot of shopping can be done online. In terms of placing orders, methods of payment, shipping, etc., I really don’t have anything to contribute. But the browsing and research necessary to make a selection have been radically transformed and enhanced in a unexpected ways. Here are a few. One of the nice things about going to an old-time store was to be able to pick up and inspect an item. That was a plus for in-person shopping, though maybe not enough if the item was sealed or shrink-wrapped. Something I discovered that I found to be much, much more useful and better was to search through a potential selection in the YouTube search box and add this word, “unboxing.” Then, click on one of the search results and watch a video on the selection. Frequently, the video will be done by a store salesman with not only product knowledge but practiced communication skills that he will use to describe things understandably. He’ll hold up the contents one by one and identify them for you. It just might help.

Another useful online research technique is to look at the reviews for an item on Amazon. From what I’ve seen, Amazon allows just about anyone, not just the pros, but actual users and customers, to compose and upload a review of just about any item posted. The reviewer has to give a rating from one to five stars and then has space for further explanations. Many leave only very terse comments if any, but there are a surprising number who offer long stories and multiple reasons for their

ratings. These authors seem to have acquired a purpose in their life of informing the rest of the world about their experiences with a product or a company’s customer service. Personally, I’ve got better things to do, but I’ll gladly take advantage of the reviews of others.

And the one final method of research, which is blatantly obvious, but still worth mentioning, is to just enter a product name or even just a general category, such as “scanner” or “RAM,” into the box of a browser search engine, such as good old Google, and add this word, “reviews.” There might be lots and lots of search results, some of which might prove to be very useful. One I like to see is something along the lines of “What to look for in a? (whatever).” Or there might be a result along the lines of “Top ten headsets, or widgets, or whatever.” Even if there is no worthwhile product to select, such searches might reveal some very important information, such as what critical attributes to look for, what price range to expect, and what local establishments have this type of product available.

For me, positive or negative reports are less important than the information provided. Something that’s praised to the skies might not be what I’m looking for, and something else that’s condemned in a review might be just what I need. Numerical ratings are just opinions, at best, starting points, and are secondary. The internet empowers one to make up one’s own mind about shopping and about a lot of other things, so one might as well use one’s own mind. And if enough of us do our online shopping with these methods, I am convinced that the vendors will be motivated to improve in price, quality, and customer service. For them, it’s getting more and more competitive. And for us, all of this can be done from one’s own computer, tablet or smartphone.

Happy shopping! ❖

LACS NOTICES

WELCOME ALL

Sylvia Davis, LACS Database Manager

New Members (0)



Renewals (7)

Juan Dominguez	Clarene Long
Fred Kong	Jim McKnight
Ruth Kong	Penny McKnight
Ron LeBlanc	

JOIN OUR MAIL LISTS

Members of LACS can join our lists by sending their names in the message body of an email from the address they want LACS to use for each of the lists they want to join.


PC@LACS+subscribe (at) groups.io
and/or to
LACSLIST@LACS+subscribe (at) groups.io

PC is for official LACS business.
Lacslist is for any other computer-related messages and questions.

LACS IS ON TWITTER

On **Twitter**, follow us at:

[https://twitter.com/](https://twitter.com/LA_CompSoc)

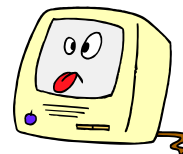
[LA_CompSoc](https://twitter.com/LA_CompSoc) or click on this  icon to see what's there.

LACS WEBSITE

www.lacspc.org posts current and back copies of the color version of *User Friendly*, calendar information, and podcasts of most of the general meetings. There is also a bi-annual index to past issues on the website. Check the menu on the right side.

FIX YOUR PC FOR FREE?

Jim McKnight has an open offer to LACS members to diagnose, repair, disinfect, or upgrade members' PC's for free.



There are certain limitations to Jim's offer, so see the details by clicking the "Fix my PC for Free?" link at www.jimopi.net.

Non-members can wisely invest in a one-year new regular LACS membership (\$40.00), and Jim will fix your PC problem, too. Contact Jim for specific considerations.

RIDE SHARING

If you need a ride to a General Meeting, or if you are able to give a ride, please contact Freda Sanders at 323-230-3278.


HOW TO CHANGE YOUR CONTACT INFORMATION

Go to www.lacspc.org. Click on **Member Forms** in the bar under the picture. Under **Membership Update**, select **Click Here** to select either the DOC or PDF form. Fill it out and bring it to a meeting, mail it, or email your changes to **membership (at) lacspc.org**.

Send roster changes by February 15, 2020. See page 2 of this issue.

LACS HAS JOINED MEETUP

Our Meetup group is called:
"Los Angeles Computer Society and Technology Meetup."

Please join and **RSVP** for our general meetings - it's free. Go to <http://www.meetup.com/Los-Angeles-Computer-Society-and-Technology-Meetup/> or click on this icon.  Then click on "Join Us."

LACS CALENDAR



LACS Board Meeting

Date: Monday, March 2, 2020.

Time: 7:00 P.M.

Where: At the home of Charlotte Semple
Contact Charlotte or a board member for her address.

LACS members are invited to attend.

General Meeting

Date: Tuesday, March 10, 2020

Time: 7:30 P.M.

Where: Westchester United Methodist Church, Fellowship Hall.
8065 Emerson Ave. Westchester, L.A. 90045

March 2: LACS Board Meeting

March 8: Daylight Saving Time Begins

March 10: LACS General Meeting

March 17: St. Patrick's Day

March 19: Spring Begins, St. Joseph's Day

March 31: World Backup Day



GENERAL MEETING PRESENTATIONS

March 10: Financial Software: TurboTax and Quicken

April 14: QuickBooks, Money, and using a spreadsheet to keep track of your finances

Note: This schedule is subject to change. Check email, *User Friendly*, and the LACS website for updates, but mark your calendar now.

PODCASTS

Listen to the podcasts of most of our general meetings. Go to <https://www.lacspc.org/category/audio-files/>. Click on the session you want to hear.

USER FRIENDLY BACK ISSUES AND INDEXES

To see back issues of *User Friendly*, go to <http://www.lacspc.org/category/user-friendly/>.

For indexes to past issues go to <https://www.lacspc.org/category/uf-index/>

GENERAL MEETING SNACK SCHEDULE

By **Sylvia Q. Davis**, Hospitality Chair

Refreshments and socializing will be at **7:00**. The meeting starts at **7:30**. Please bring refreshments at **7:00**.

March 10 O through S

April 14..... T through Z

May 12 A through D

June 9 E through I

July 14 J through N

Bring **finger-food** treats such as fruit, veggies, nuts, cookies, cold drinks and the like.

LACS provides hot drinks.

See your email for updates and reminders.

Please pick up your left-overs and serving pieces after the meeting.



MEMBERS HELPING MEMBERS

LACS members volunteer to help other members solve hardware and software problems by telephone during the hours listed below. Select the topic from the list and then call a person whose number is listed next to it. Or you may use a Helper's e-mail address, found in your LACS Roster. We hope that you find this free service useful. **If you are experienced using a particular program or know a topic, please volunteer to be a consultant. You don't have to be an expert.** To volunteer for this list or to make corrections, please email Leah Clark at <Leahjc (at) sbcglobal.net> or call her at 310-677-2792. More Quick Consultants, and more categories are always needed. You may decline or postpone a call if it comes at an inconvenient time.

Adobe Creative Suite: PDF, InDesign, PhotoShop, etc. - 17	Hardware - 12	Photoshop - 17
Android Smartphones - 5	Linux - 11	Quicken - 3, 5
Apple devices - 15	Lotus Word Pro, Approach - 12	Thunderbird - 12
Anti Malware and Backup - 5,12	Mozilla Firefox - 12	Utilities - 5, 12
Digital Imaging, Editing - 8	MS Excel - 3, 5, 15	Visual Basic - 13
Digital Photography - 8	MS Word - 3, 4, 10	Websites - 13
Dragon Naturally Speaking - 4	MS Outlook - 5, 15, 17	Windows 5, 12, 16
Genealogy - 5	MS PowerPoint - 15	WordPerfect - 5
Groups.io - 5	MS Publisher - 7	Yahoo Groups - 5
	Open Office - 16	

No.	Name	Preferred Phone for Calls	From	To
3	Wilder, Joan	310-472-8445	9:00 AM	9:00 PM
4	Hershman, Irv	310-397-9453	11:00 AM	11:00 PM
5	Nordlinger, Stephanie	323-299-3244	9:00 AM	5:00 PM
7	Clark, Leah	310-677-2792	7:00 AM	5:00 PM
8	Silverstein, Elliot	310-670-1544	10:00 AM	10:00 PM
10	Beckman, Loling	310-471-7893	10:00 AM	6:00 PM
11	Hughes, Bill	424-259-1818	Any	Any
12	McKnight, Jim	310-823-7829	8:00 AM	7:00 PM
13	Ialongo, Gilbert	310-641-7906	9:00 AM	5:00 PM
15	Van Berkomp, Paula	310-398-6734	9:00 AM	5:00 PM
16	Johnson, Carol	310-372-8535	10:00 AM	9:00 PM
17	Rozek, E. J.	310-823-3811	Noon	8:00 PM

OFFICERS, DIRECTORS AND LEADERS

Title	Name	Term	Telephone
President	Leah Clark	2020	310-677-2792
Past President	Stanley Johnson	2020	424-216-6984
Vice President	Stephanie Nordlinger	2020	323-299-3244
Secretary	Marcia Jacobs	2020	310-838-1409
Treasurer	Gavin Faught	2020	310-346-2037
Director	Paula Van Berkomp	2021	310-398-6734
Director	Newton Bernstein	2021	310-945-9111
Director	Charlotte Semple	2021	310-398-5052
Director	Howard Krivoy	2020	310-717-7465
Director	Mark Presky	2020	310-398-0366
Director	E. J. Rozek	2020	310-823-3811
Director	Open	2020	
APCUG Rep.	Leah Clark		310-677-2792
Car Pool Coordinator	Freda Sanders		323-230-3278
Change of Address	Sylvia Davis		323-293-5004
Corporate Counsel	Stephanie Nordlinger		323-299-3244
CCSC Computer Lab	Loling Beckman		310-471-7893
Greeter	Freda Sanders		323-230-3278
Assistant Greeter	Penny McKnight		310-823-7829
Hospitality Chair	Sylvia Davis		323-293-5004
Asst. Hospitality Chair	Open		
Membership Database	Sylvia Davis		323-293-5004
Newsletter Editor	Leah Clark		310-677-2792
Program Chair	Stephanie Nordlinger		323-299-3244
Assistant Program Chair	Open		
Publicity - Press	Mark Presky		310-780-3302
Publicity - Online Media	Stanley Johnson		424-216-6984
Quick Consultants	Leah Clark		310-677-2792
Webmaster	Paula Van Berkomp		310-398-6734

Website www.lacspc.org

Voice Mail 1-310-398-0366

E-mail ContactUs (at) lacspc.org

Newsletter Editor editor (at) lacspc.org

Webmaster sitemaster (at) lacspc.org

Change of Address membership (at) lacspc.org

The **ContactUs (at) lacspc.org** address goes to our president and vice president.

If the message is for another officer or member, they will forward it to the correct person. To contact other officers, directors, leaders, or members directly, members may use our roster for phone numbers and e-mail addresses.

MY EXPERIENCE WITH A SUBSCRIBER VPN

Advantages, Costs, Pitfalls, Workarounds

Part 1 of a 2-part article series

By **John Krout**,

Member, Potomac Area Technology and
Computer Society (PATACS)

www.patacs.org

jkrou75 (at) yahoo.com

This article is based on a lot of research, several years of use of a corporate VPN at work, and a few months of using a subscriber VPN at home.

VPN is an acronym for **Virtual Private Network**. Your use of a VPN provides a secure method of data communication through strong encryption. The encryption hides the info in your communication, such as the content of emails and URLs of web sites, from your Internet Service Provider (ISP) and any other **Man in the Middle**.

WHY VPNS EXIST

That phrase, “Man in the Middle”, is important. Your communication with your email server or any Web site may pass through half a dozen or more servers in between. For anyone of those in-between servers, any bored or underpaid system administrator, and any hacker breaking in might install message trapping software to capture info passing through, such as your IDs and passwords for your stockbroker or bank. Those snooping activities are called Man in the Middle attacks. Encryption makes it almost impossible for them to make use of that info.

Originally, when Local Area Networks (LANs) first became available, the only networks were inside a single building where all the computers were connected on the local network, with no connection to anything outside the building.

Later, secure direct circuits, and modems, allowed communication between computers on the inside and the outside.

A very entertaining book, *The Cuckoo's Egg*, written by Clifford Stoll, describes the Bad Old Days before VPNs when networks were insecure. It is a fascinating read. The author, an astronomer, was given the task of tracking down a 75-cent discrepancy in billing for the use of a university local area network. His investigation led him to identify peoples who broke into the network. He found the same people also broke into military computers. He tracked the people to Europe, where they were tried and convicted based on his testimony and a huge pile of printed computer logs as physical documentary evidence. Stoll was the good guy in the middle.

Because of experiences like that, corporations and the federal government have used their own VPNs for many years. VPNs have enabled greater automated data movement, ensuring the privacy of the data due to the use of strong encryption.

And, now, VPNs are available to the rest of us.

While using a VPN, the encryption is based on two *digital certificates*. The VPN server provides one to your computer, tablet, and smartphone. Additionally, the VPN server itself has another one. The encryption using those two certificates is based on some very creative research done in the early 1980s by three MIT professors, Rivest, Shamir and Adelman, who founded RSA and Verisign, two companies now at the heart of modern digital security efforts.

A second result of the two-certificate approach is that your account is known to be valid by the VPN server, and the VPN server is known to you to be valid as well.

Without using a VPN, web sites, and other internet services get access to the Internet Protocol address (IP address) of your home router, computer, phone or tablet. This is important because those IP addresses let web sites figure out where you are located. When you use a VPN, the web sites see only the IP

address of the VPN server. In this way, a VPN server acts as your proxy, and are sometimes called **Proxy Servers**.

Take a look at **Illustration 1** on page 15. This shows how a VPN server fits in the overall path of servers between your computer, phone, or tablet and the world of the internet. Inevitably, your VPN-encrypted communications pass through your ISP servers, and then possibly through other intermediary servers until it reaches the VPN server. Using a VPN server severely limits any snooping, not only by your ISP, but also by any servers between the ISP servers and your VPN server. So the Man in the Middle is stymied in that part of the path.

Beyond the VPN server, the communication is unencrypted by the VPN or *in the clear*, and at that point reaches the destination, which might be for instance, a video streaming server or a credit card company's web server. Of course, that leg of the path also involves intermediate servers.

Because that leg of the overall communications path is not depicted as encrypted, you might think that a Man in the Middle attack would succeed there.

However, these days most of those destination servers use HTTP-Secure protocol (https), which also employs encryption done differently by your Web browser and by the destination server. That's right, a second encryption. As a result, the communication remains secure all the way through the entire path.

But I want to digress for a moment and suggest that your ISP might also behave as a Man in the Middle.

When you use a VPN, the fact that the servers of your ISP see only encrypted data is very significant. Your ISP is always in the best position to snoop, effectively a Man in the Middle for all the web sites you browse, the streaming services you use, and so forth. All of your

browsing and other use of the Internet goes through those ISP servers.

Your ISP has a strong economic incentive to take advantage of that best position: data on the web sites you visit and the downloads you select can be quite valuable to third parties. And don't think ISPs will ignore that incentive simply because you are a customer of the ISP. The big ISPs convinced the FCC to eliminate Net Neutrality rules so that the ISPs could solicit money from the likes of Netflix and CNN to accelerate delivery of those sites to your computer.

So the use of a VPN consistently protects you from snooping by your ISP.

MORE ADVANTAGES OF A VPN

I have been using a VPN and HTTPS from my work site for more than a decade. I have seen no significant impact on communications speed. Computers do the encryption and decryption quite quickly these days.

An advantage of subscriber VPN services is that you have access to hundreds or thousands of VPN servers, in many cases, spread around the world. If one is busy or down, you can easily use another. Redundancy is a very valuable advantage.

Another advantage is that you can choose a VPN server located in a country where a local web site or video streaming service is of interest to you. For instance, the BBC streaming service is open only to users located in the UK. When the BBC servers detect a request from a US IP address, the servers ignore it. If you use a VPN Proxy server in the UK, the UK IP address of the VPN Proxy server tells the BBC that you are local, and you then get to use that streaming service.

A third advantage is far less clear. According to PC Magazine, many VPN users in the US subscribe specifically because the federal government has eliminated the Net Neutrality rules. The idea is the ISP cannot

throttle back what it cannot decrypt, meaning what it cannot recognize. NordVPN, for one example, actively promotes that idea on their company's web site. I am not convinced that the idea is correct.

COUNT YOUR VPN-READY DEVICES

Another advantage is that subscriber VPN services let you connect more than one of your devices (computer, phone, tablet) to the VPN *at the same time*. This is important if you use two or more internet-connected devices, as I do. And it is a major convenience factor, allowing you to leave all your devices connected all the time, not just when you actively use each one.

Snoopers can monitor the web browser on your phone or tablet just as readily as they can on your computer. A VPN can and should protect all of those devices.

Several VPN services that I reviewed set a ceiling on the number of concurrent uses by a single account and that limit varies from three to ten.

Before you select a VPN service, you need to make an assessment of the number of concurrent connections you may need.

For example, in my case: I have two Windows computers, two Android tablets, and one Android smartphone, a total of five devices. My son has a Windows computer, a Linux computer, one android tablet, and one Android smartphone, a total of four devices. So our grand total is nine.

COMPARISON SHOPPING FOR VPNs

When I was shopping for a VPN service, I came across a review of public subscriber VPNs on **TechRadar.com**, published in March 2019. **Illustration 2** on page 15 is a table comparing the top three VPN services according to TechRadar's rating system, and some details about them. The number of servers and countries will likely continue to grow for each of the public subscriber VPNs.

The column labeled **ceiling of devices per account** indicates the ceiling on the number of computers, tablets, and smartphones on which you run the VPN client software simultaneously.

The column labeled **# proxy servers** is especially valuable for redundancy purposes. If one VPN proxy server happens to be down or malfunctioning, then you can try many others. Generally, more is better.

Concerning the **number of countries**, although the overall situation worldwide is improving all the time, to some extent I think there are diminishing returns beyond about 50 countries. This is because smaller countries have fewer localized streaming services, and often do not have high bandwidth connections to the internet, so VPN servers in many smaller countries cannot work as rapidly as VPN servers in say the US or Canada or western Europe or Japan or South Korea.

I chose to subscribe to the **IPvanish VPN service**. It's ceiling on the number of concurrent connections is 10. That was the most important factor for me.

Later on, I found that VPN services are now so popular that PC Magazine reviews the services and provides Editor's Choice awards, their long-coveted recommendation. In 2019, the Editor's Choice awards went to three VPN services:

- TunnelBear (www.tunnelbear.com),
- Private Internet Access (www.privateinternetaccess.com),
- NordVPN (www.nordvpn.com).

NordVPN was the one service that was top-rated by both TechRadar and PC Magazine.

PRICING

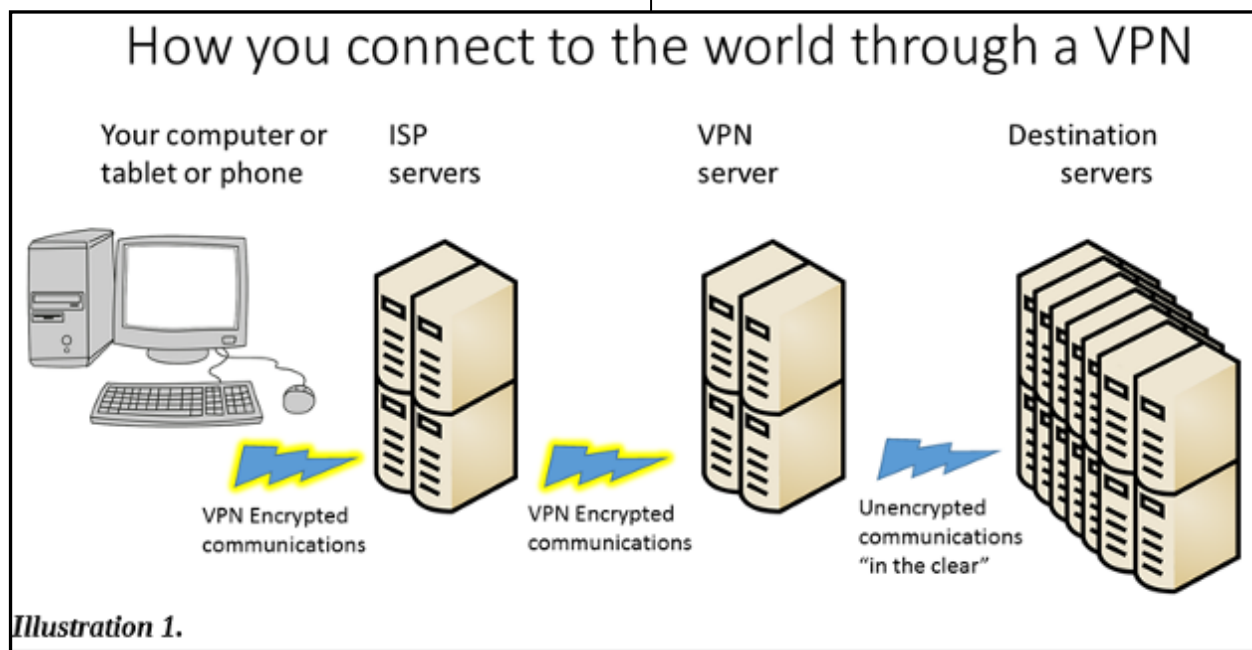
The VPN services have a monthly rate, usually less than \$10, and offer discounts if you pay in advance for say three months or for a year. Some even offer further discounts if you pay in advance for three years.

Some VPN services have their business offices outside of the US and may charge your credit card to a bank outside of the US. You may wish to let your credit card company know in advance so that the charges are not automatically blocked by your card company. This ends Part 1. In Part 2, you will learn about some difficulties encountered on VPNs, and some workarounds.

ABOUT THE AUTHOR: John Krout is a former president of the Washington Area Computer User Group (WAC), one of two groups that merged to become the Potomac Area

Technology and Computer Society (PATACS). He has been writing about personal computer uses since he joined WAC in the early 1980s. He is a frequent contributor to PATACS Posts, and occasionally provides presentations on tech issues at PATACS meetings. He lives in Arlington VA and is a writer for the Thales Group, a major maker of automated fingerprint identification hardware, supporting the use of that hardware in the computer system of a major federal government agency. ❖

Part II of this series will be in the April 2020 User Friendly.



VPN service	# proxy servers	# countries	Ceiling on devices per account
ExpressVPN www.expressvpn.com	3,000	94	3
IPvanish www.ipvanish.com	1,200	60	10
NordVPN www.nordvpn.com	5,300	60	6

Illustration 2.

WHY DO SO MANY TECH SUPPORT SOLUTIONS START WITH “REBOOT” OR “TURN IT OFF”?

by Leo A. Notenboom, Askleo.com

Quite often, the first thing a diagnostic technician asks you to do is reboot your computer. Why? Because rebooting works surprisingly often

It does seem like magic, doesn't it? The computer's acting up, you reboot it, and *poof*, things are better again. At least for a while.

It gets even weirder when you achieve the same effect just by shutting it all down and pulling the power cord for a while.

A friend of mine once provided a nice explanation for the power scenario, and I can speak a little bit to the magical mess that is software.

Jerrold Foutz, a friend of mine who is an industry expert in the design of power supplies. A while ago, he provided a very interesting write up on unplugging the power as perhaps the single most effective electronics troubleshooting technique. Literally, unplug the device. Leaving it plugged and just flipping a power switch instead will often *not* remove power from absolutely everything.

The topic came up in a discussion when I recommended power-cycling a router — unplugging it, waiting 30 seconds, and then plugging back in — as a way to resolve a connectivity problem.

The fact is, electronic components can get into an odd state, and as Jerry points out, power-cycling the equipment forces the equipment to reset and restart from a known good state. The same is true for software.

When in doubt, reboot

Complicated software (and what software isn't complicated these days?) involves lots of things on your computer as it runs. The longer it runs, the more it impacts.

Memory is used, released, and fragmented. Same for the disk, as programs open, read, and write local and temporary files. And then there's the hardware — video cards, networking adapters, mice, keyboards, other peripherals — they're all accessed continuously.

The result is that any of those (and perhaps all of them) can end up in states that can cause problems.

It shouldn't be that way, and the inherent quality of software and hardware plays a huge role, but the bottom line is that it happens. The software can get confused over time.

And those technicians who ask you to reboot your device? They do so because it works more often than you might imagine.

Starting over

A reboot restores all the software to a known state.

A power-cycle restores all the hardware to a known state.

Well, a *mostly* known state. Temporary files, installed files, registry changes, and more will remain. That's why in extreme cases, a reformat and reinstall is a recommended solution for some computers: it returns things to a known state.

The router problem that started this discussion? Like many devices these days, routers are actually small single-purpose computers. Their internal memory tracks a variety of information relating to the network connections they manage.

The longer they run, the more likely it is that something will create a problem. It could be hardware related, as explained in Jerry's article, or something in its software, as I've outlined above. In any case, I typically reboot my own router every few months. ♦

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WRITE RIGHT, A REVIEW

By Frank Petrie, May 2019

<https://ympnow.com>

I have been reviewing software and hardware for about two decades. Sometimes the words flow. Other times I need to pry them from my skull. In college, I had a professor who always said, "Writing is rewriting." Too true. He died long ago, but his guideline has revisited me in the form of an incredible app, ProWritingAid. <https://prowritingaid.com/>

Good writing is about more than grammar.

ProWritingAid is the best free writing app out there. It includes a fantastic grammar checker but also goes way beyond grammar checking to help you improve the style and clarity of your writing.

The editing tool analyzes your text and highlights a variety of key writing issues, such as overused words, sentence structure, punctuation issues, repeated phrases, consistency, dialogue, and readability. It helps you learn as you edit, making you a stronger writer.

I admit to at least 70% of the infractions above, but I WILL argue over the Oxford Comma until the day I die! Ironically, one sentence and a paragraph in the blockquote above were flagged by the app.

This app is incredible. You can check your work in a multitude of ways, covering every conceivable metric. You can check it with a comprehensive summary. But you can also granularly check your grammar, your diction, look for redundancies, and clichés. There are roughly two dozen checks you can perform. For an extra fee, you can purchase different numbers of plagiarism checks (great for schoolwork).

Mercifully, it includes my dear friend, the Thesaurus and even occasionally encourages me to use it (HUZZAH!).

You can also set your own filters or ignore ones that they suggest

ProWritingAid's Desktop App allows you to open, edit, and save your Scrivener projects without losing formatting. It also works with other formats such as Microsoft Word, Open Office, Rich Text, HTML and Markdown.

If you're writing a short story, your blog, or the great American novel, there is room for disagreement with their suggestions which are allotted. I'm a musician and composer. In the same manner, as a musical composition flows, your words should have a rhythm. This is your "voice."

In my opinion, if you're writing a scholarly piece or business presentation, ProWritingAid is a valuable tool. Not to say your great American novel doesn't have its share of incorrect grammar, punctuation, or other literary offenses, but I believe ProWritingAid is better suited for business and academia.

It is to writing what the Pomodoro method is to productivity. It enables you to focus because you feel like your boss is standing next to you, making sure you get the job done. ProWritingAid took me back to middle school, writing an essay as my teacher hovered over my shoulder.

There is one function that I found fascinating: Word Explorer. Pick any word, and it will present you with an endless list of options.

This app pointed out why my English grades were so pitiful. But it was a great help in improving my writing. I could still use my "voice" but now I had to justify my wording. After writing reviews for all these centuries, it was somewhat humbling.

ProWritingAid is available as part of your Setapp subscription or can be subscribed to in three plans: the Free subscription (which has limitations), the Premium Plan for US \$60 annually (fewer limitations), and the Premium+ Plan for US \$70 annually (there's 50 plagiarism checks included per year).

And there's a trial version available. Give it a bash. ❖

JERE'S TECH TIPS

For many helpful tips and tricks for all aspects of computing, see *Jere's Tech Tips* at <https://apcug2.org/jerestips/>.

TECHBOOMERS.COM

teaches how to use various websites and internet-based applications.

- <https://TechBoomers.com>
- <https://www.youtube.com/watch?v=O2-bwYIYu1I>

SPECIAL OFFERS

Go to the APCUG website <https://apcug2.org/discounts-special-offers-for-user-groups/> for discounts and special offers for Members of User Groups. Avast Anti-virus and Acronis True Image, and several book, media and training sites offer discounts including the two mentioned below.

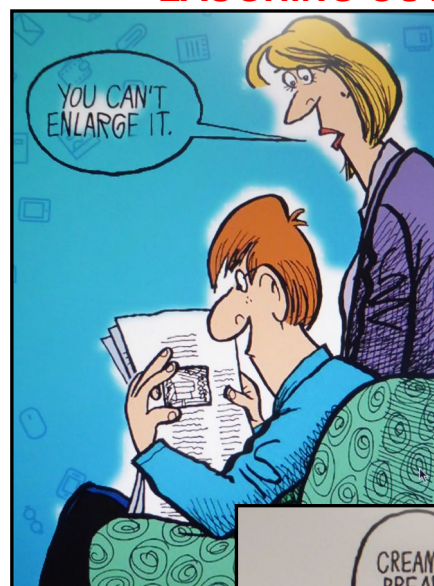
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The columns, reviews and other expressions of opinion in *User Friendly* are the opinions of the writers and not necessarily those of the Los Angeles Computer Society. LACS became a California non-profit corporation on July 17, 1991. Its predecessor was the UCLA PC Users Group.

LAUGHING OUT LOUD



These cartoons are from Hewie Poplock's VTC presentation on February 8, 2020.



FINANCIAL REPORT

A LACS member who wishes to see or has questions about our financial reports may contact our treasurer.

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Annual membership Dues:

Regular New and Renewal,	
Printed Newsletter	\$ 40
Electronic Newsletter	30
Family-Associate	12
Students	18
Contributor	50
Supporter	75
Benefactor	100

A subscription to *User Friendly* is included with membership.

Associate members are those who live in the same household or work at the same address as a regular member; they do not receive their own subscriptions to *User Friendly*, but may read it on the LACS website. **Students** must prove full-time status.

In addition to monthly general meetings, members enjoy these special benefits:

- **Monthly Newsletter** *User Friendly*. We publish your article submissions or free classified ads to buy or sell your computer items.
- **Get FREE help** by phone from knowledgeable members who are Quick Consultants listed in *User Friendly*.
- **Get help by email** by using our LACSLIST Group Mail List. Send your questions by e-mail to lacslis (at) lacs.groups.io
- **Receive important news** and announcements via *User Friendly* and LACS's Group e-mail lists.
- Occasional product **discounts**, special offers, etc.

— **Virtual Technology Conferences** and free quarterly webinars.

— **Information** on training, swap meets and trade shows.

— Occasional **free software and computer books**, if you review them for *User Friendly*.

— **Rewards** for recruiting; LACS will extend your membership for three months for each new regular member you recruit.

— **Annual Holiday Party**

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— **Social Interacting** with others who have like interests in computers and technology.

— **Special Interest Groups** (SIGs) on various topics may be created to help you to learn.

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LACS

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Preferred Phone:

Publish Contact Info in Roster ☐ Yes ☐ No

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DIRECTIONS TO GENERAL MEETING

Westchester United Methodist
 Church Fellowship Hall
 8065 Emerson Ave.
 Los Angeles CA 90045

From the North:

Take Sepulveda Blvd. SOUTH
 to W. 80th St. Turn WEST/right.
 Go about one mile to Emerson
 Ave. Turn SOUTH/left. Go one
 long block to W. 80th Place. It
 is on the Northwest corner of
 Emerson and W. 80th Place.

From the South, East or West:

Take Manchester Ave. to
 Emerson Ave. Turn NORTH. Go
 about eight blocks to W. 80th
 Place. Fellowship Hall is on the
 Northwest corner of Emerson
 and W. 80th Place. There is
 street parking and a small
 parking lot West of the church.

