

# News Journal

***“Members Helping Members”***

January 2022

Volume 39, Issue 10

**HAPPY NEW YEAR**



*"Members Helping  
Members"  
(since 1983)*

### **Board of Directors**

2020-2021

#### **President**

Phil Bock

[president@lcace.org](mailto:president@lcace.org)

#### **Vice President**

Linda Busch

[vicepresident@lcace.org](mailto:vicepresident@lcace.org)

#### **Secretary**

Bobby Jacobs

[secretary@lcace.org](mailto:secretary@lcace.org)

#### **Treasurer**

Judy Dunham

[treasurer@lcace.org](mailto:treasurer@lcace.org)

#### **Programs**

Linda Rohlfing

[programs@lcace.org](mailto:programs@lcace.org)

#### **Membership**

J.J. Johnson

[membership@lcace.org](mailto:membership@lcace.org)

#### **Public Relations**

Linda Koudelka

[pr@lcace.org](mailto:pr@lcace.org)

#### **Volunteers**

#### **Webmaster**

J. J. Johnson

[webmaster@lcace.org](mailto:webmaster@lcace.org)

#### **Newsletter Editor**

Mike McEnery

[editor@lcace.org](mailto:editor@lcace.org)

#### **Historian**

Lester Larkin

[historian@lcace.org](mailto:historian@lcace.org)

# Lake County Area Computer Enthusiasts

c/o Group Ambassador

"J.J." Johnson

## News Journal

*The LCACE News Journal* is published eleven times annually. Members are encouraged to submit contributions which will be acknowledged in this newsletter. Send articles to [editor@lcace.org](mailto:editor@lcace.org). Permission is granted to reproduce any or all parts of this newsletter in other User Group publications, provided that credit is given to LCACE and the individual author (s). Logo designed on an Atari Stacy Laptop in 1989 by Dwight Johnson Jr.

## Membership

LCACE membership is open to all individuals and families interested in personal computing. Annual dues are \$20.00 per individual/family. Applications for membership may be obtained at the monthly meeting, by request on the club hotline, and are now available on our web site at <http://www.lcace.org>.

## Meetings

LCACE meetings are usually held on Saturdays at the Grayslake Area Public Library, 100 Library Lane, Grayslake, Illinois. The meeting room opens at noon and the formal meeting begins at 12:30 p.m. All meetings are open to the public. Bring a friend!

## Newsletter Submissions

Club members are welcome to submit classified ads, reviews, tips and other articles for publication, to our newsletter editor in Microsoft Word format (.doc). **Publication deadline is the 20th of the month for all ads and articles.** Please do not use tabs or special formatting.

## Newsletter Advertising

Ad rates per issue: Full page - \$25, Half page - \$15, Quarter page - \$10, Business Card - \$5. Discounts are available on advance purchase of multiple issues. Please send camera-ready copy and payment to the club address by the 15th of the month preceding publication. For more information on ad pricing, please call our Hotline. Ads are **FREE** to all paid members.

## Notice

*LCACE WILL NOT CONDONE or knowingly participate in copyright infringement of any kind.* The *LCACE News Journal* is published by and for LCACE members. Opinions expressed herein are those of the individual authors and do not necessarily reflect the opinion of LCACE, the membership, the board of directors, and/or our advertisers.



# *Phil's Ramblings*

**A**fter several years of active duty in the United States Marine Corp. Phil returns civilian life and begin a 33-year career in the logistics division within Xerox Corporation. Now retired, he advocates this time between golf and computers, depending on the weather. His first computer was Apple II, shared with his son Phil eventually got his own computer and used it for both home and business until PC's came along. Xerox eventually equipped employees with compact laptops and taught them how to use them. In 1997, Phil bought his first PC, a Micron desktop running windows 95. That has been followed with many more, as he leapfrogged from windows 95 to Windows XP to Windows 10. About five years ago he joined a local computer club, the Lake County Area Computer Enthusiasts. Not too long after, Microsoft offered a license for Windows 8 professional at a very discounted price. Phil took advantage of the offer, and actually became the club's Window 8 “expert” at least until others bought new computers with pre-installed versions. He did something similar with Windows 8, joining the insider program for six months prior to the launch.

## *In Memory*



**May 24, 1937**  
**December 5, 2021**

Phil joined Lake County Area Computer Enthusiast in 2011 and for the past 6- years he has been LCACE president. It was a great learning experience for him and he has done several presentations which gave him a reason to learn more about this whole field that he otherwise would not have. Phil enjoyed sharing that information with his club members as well as other clubs through the APCUG Speakers Bureau.



**zoom**

Joining a Meeting

January 8, 2022

**Membership Chairperson Report**

**Members**

Meeting Attendees: 23

**THANKS FOR JOINING**

Edward Wicinski

**THANKS FOR RENEWING**

None

**THANKS FOR VISITING**

Bill James

Judy Taylour

Terence Eiden

**MEMBERSHIP  
RENEWAL**

**2022-2023**

*Annual Dues*



**January**

Roger Busch

Donna Kalinoski

Thomas Krissek



**December**

Stephanie Brent

Linda Rohifing

Diane Berndtson

Ted Zalewski

Linda Bush



## Holiday Gift Idea?

### Rosie, the Wyze Robot Vacuum

By Jasmine D’Katz,

#### Lake County Area Computer Enthusiasts

I was recently informed by Judy T aylour (APCUG) that Jasmine had one of her articles reprinted in the December issue of the **UCHUG** (*Under The Computer Hood User Group*) newsletter.



Jasmine also had her “Locate Files and Folders Instantly!” published in the November issue of User Friendly from The Los Angeles Computer Society Newsletter.

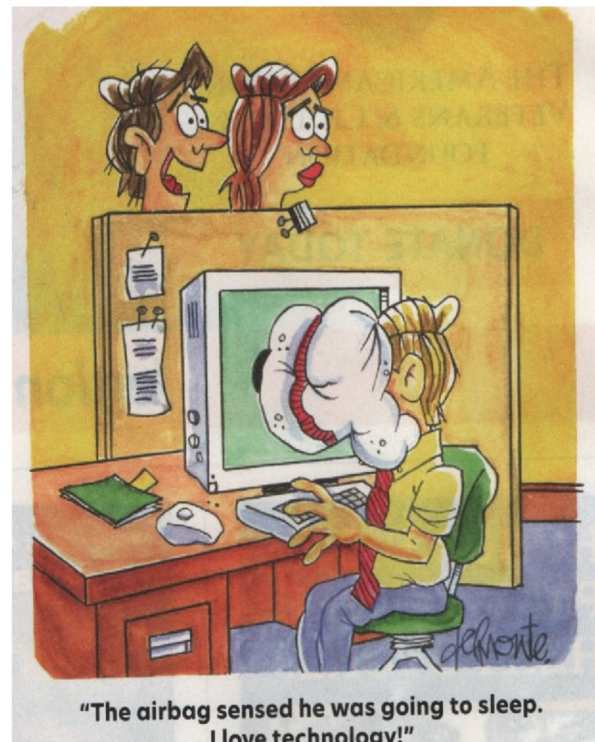
Jasmine has been a member of LCACE for just over four years and when she gets her paws on the computer or tablet, she enjoy writing reviews of the new toys delivered from Amazon or the USP guy. She has written several article for the club. And is now more excited that her article are being published in other newsletters.

As you can see, she enjoys playing with the vacuum.

**Well Done Jasmine!**

## TECHNOLOGY TRIVIA Compiled by Leah Clark, LACS

- If we could turn the human brain into a computer, then that computer would do 38,000 trillion operations per second and hold more than 3580 TBs of memory.
- Symbolics.com is the first registered .com domain name. It was registered on 15 March 1985.
- The design team of the IBM PC prototype was code-named *The Dirty Dozen*.
- Apollo 11 landed two men on moon. The combined power of all the computers in Apollo 11 is much less than the power of today’s mobile phone!
- The Melissa computer virus affected about 20% of world’s computers. It’s creator, David L. Smith, was sentenced to 10 years in prison.
- Email was invented before the World Wide Web! ❖



January 8—Windows 11

February 12—Economic

March 12 Show n’ Tell

April 9— Ask the Guru / Elections

# November Winners



**Dorothy**



**Liz**

# Use Your Tablet or Smartphone For Greater Accessibility

By Katrina Stratton

**M**ost of us have smart phones or tablets that we use regularly. These devices can provide a casual user with the functionality of more expensive accessibility devices. We recommend the following "Starter Pack" of apps to help your device become an accessibility tool for people with low vision.

Seeing AI is a free app that uses artificial intelligence to help narrate the world around you. Many call this the Swiss army knife of apps because it has so much functionality and it continues to grow. Seeing AI is a free app created by Microsoft.

Below find a sample of some of the channels in the Seeing AI app:

*Short Text* - Speaks text as soon as it appears in front of the camera

*Documents* - Provides audio guidance to capture a printed page

*Products* - Helps locate barcodes and scans them to identify products

*Person* - Recognizes friends and describes people around you

*Currency* - Identifies currency bills when paying with cash

*Handwriting* - Reads handwritten text

**Be My Eyes** is another free app that connects people who are blind or low vision with sighted volunteers and company representatives for visual assistance through a live video call. When you need help the app will connect you with a trained assistant who will walk you through where to point your phone and help you navigate. It is great for reading signs, figuring out colors or finding your way in new surroundings.

**Kindle App** - The Kindle app is a free app that will make your



Amazon book purchases available to you, allowing you to consolidate your devices. This app also allows you to control the magnification so that you can more easily read the

**BARD App** - This app allows you to check out books from the National Library Service Talking Books program and play them on your device. The Talking Books program is free, but you need to have your vision loss certified by a "competent authority."

Most **local libraries** provide access to digital books and audio books. Ask your library what service they use, and you can check out audio books using your library card and play them on your device.

**Scribd** - This is a subscription services that offers a wide access to audiobooks in addition to printed materials like books, magazines, and sheet music.

This is a brief overview of some apps that you can add to your table or smartphone to turn it into an accessibility device. These devices offer a wide range of accessibility options.

If you need help getting started with these apps or are looking for more specific training on how to use your device as an accessibility tool, make an appointment to work with our low vision rehabilitation



“Please Excuse My Dear Aunt Sally” is the mnemonic that can be helpful when learning which school subject?

- ⇒ Biology
- ⇒ Algebra
- ⇒ Chemistry
- ⇒ Geography

### What is kebab icon?

The kebab menu, also known as the three dots menu, and the three vertical dots menu, is an **icon used to open a menu with additional options**. The icon is most often located at the top-right or top-left of the screen or window.



## PC Keyboard Shortcuts

Hold down first key as you press second key:

+ *Open File Explorer*

+ *Save your work*

+ *Print*

+ *Bookmark page*

+ *Find a word or phrase*

+ *Search for files & folders*

+ *Undo last action*

+ *Redo an action*

+ or *Zoom in/out*

+ or *Highlight text*

+ *Open start screen*

+ *New docmnt, email, etc*

+ *Copy selected item(s)*

+ *Cut selected item(s)*

+ *Paste selected item(s)*

+ *Select all items in document or window*

+ *Switch between windows*

+ or *View windows side by side*

+ *Close document*

### BONUS: One-Key Help

*Display help screen*



Please recycle this after you read my message.







## Windows & Android Tips

**HOW YOUR VOICEMAIL GREETING COULD SAVE YOUR LIFE** – “Earlier this year, the nation held a breath when snowstorms zapped power across the central and southern states. Thousands of families shivered in the cold without water or electricity in their homes. Tap or click here to prepare for winter storms. Ingenuity and preparation can make a world of difference in times like this. When disaster strikes, you want to have put together a game plan ahead of time. After all, no one wants to be left out in the cold. That’s why we’re sharing this tech hack that can help you in case you’re ever stranded in the middle of nowhere. If your battery is low and your service or data is still working, change your voicemail. It could just change your life.” Read more at [How your voicemail greeting could save your life \(komando.com\)](http://komando.com)

**8 WAYS TO MAKE YOUR OLD LAPTOP FEEL NEW AGAIN** – “A good computer is understandably expensive, but it sometimes feels like it isn’t worth the sticker price. After a few years of use, many laptops and PCs start to run slow; typical tasks are no longer as easy as they once were, and you find yourself eyeing the new computers on the market. The difficulty in giving computer advice is there are so many different types of machines out in the wild. Obviously, the great divide is between Mac and PC, but even within each of those categories, there are varieties and discrepancies. Some Apple machines are user-accessible and upgradable, while others aren’t. The same goes for specific PC models. In many cases, then, the following advice will need to be taken with caveats in mind.” Check out the PC and Mac tips [8 Ways to Make Your Old Laptop Feel New Again \(lifehacker.com\)](http://lifehacker.com)

**HOW TO RECOVER ACCIDENTALLY DELETED FILES IN WINDOWS** – “It happens all the time. You decide to clean up your hard drive and then three days later you can’t find an important file. It’s not in the right folder or the Recycle Bin, and you don’t have a hard drive back-up. You’ve accidentally deleted the file. So now what?”

Take a deep breath, unclench your jaw, and relax your shoulders. Whether it’s an Excel, Word, PowerPoint, Outlook email, or any other kind of file, with our help it’s possible that you can recover accidentally deleted files in Windows.”

[How to Recover Accidentally Deleted Files in Windows \(online-tech-tips.com\)](http://online-tech-tips.com)

**MOVING FROM ANDROID TO IPHONE? HERE ARE 9 DIFFERENCES TO CONSIDER** – “Upgrading your smartphone is always exciting. And if you’ve used an Android device for a while, you might consider switching over to an iPhone at some stage. Like other Apple products, iPhones have a reputation for being user-friendly. However, you’ll still have to go through a bit of a learning curve in the first few weeks of your switchover.

If you’re thinking about switching from Android to iPhone—or you’ve already bought your new smartphone—read this article for nine things you should know.”

[Moving From Android to iPhone? Here Are 9 Differences to Consider \(makeuseof.com\)](http://makeuseof.com)

**HOW TO IDENTIFY FRAUDULENT AND/OR DANGEROUS WEBSITES** – Fraudulent, fake and untrustworthy websites are all over the Internet these days, and it’s easy to find yourself on one without even realizing it. According to Internet Live Stats there are currently close to two billion websites on the World Wide Web. Unfortunately, not all of them are legitimate. With all of those sites competing for your clicks from the Google search results and links on other websites, it’s extremely important to be able to determine which sites are legitimate and which ones are fraudulent and/or unreliable. Learn more at [w to identify fraudulent and/or dangerous websites \(ricksdailytips.com\)](http://ricksdailytips.com)



## Windows 11, Personalize My Device, Account Passwords and Moving Tech Devices

**Q.** Is there a dictionary for Emoji?

**A.** What a delightful question. There is not just a dictionary, but an entire encyclopedia! Point any web browser to [emojipedia.org](http://emojipedia.org), your one-stop shop for all things emoji.

While many people know about emoji, fewer people know that there is a constantly changing universe surrounding emojis. New emojis are added regularly, and illustrations for existing emoji characters change over time. For example, a recent change to the syringe character removed the red drops suggesting blood, expanding the usefulness of the syringe to communicate about vaccines.

These kinds of changes are documented on Emojipedia. Emojipedia is a labor of love founded by one person, Jeremy Burge, who refers to himself as the Chief Emoji Officer of Emojipedia. Jeremy's site contains a wealth of information, both current and historic.

There is a searchable index of character descriptions, character lists grouped by occasion, news, release schedules, and much more.

The visual style of an illustration for each emoji character varies. A smiley face looks one way on an iPhone, and a unique way on a Google phone. Some software companies also develop their own interpretation of the emoji character set.

Personal computing has come a long way from ASCII marks like :) to denote a sideways smile. Today, the right emoji can add depth and meaning to any text.

**Q.** Are smartphone chargers interchangeable? Can I reuse my existing charger with a new device?

**A.** The easy answer is sort of, but not always. Read on to get the whole story.

The power charger tale mirrors many other stories in tech. Some things get better. Some things get worse. And there is plenty of confusion to maximize the suspense.

It does appear that the days of finding a power charger in the smartphone box are numbered. What was once considered a necessity is now an accessory.

Besides quality, the difference between chargers comes down to two things: the USB connector and the power capacity. You will need a cable that matches the connectors on the adapter and your phone. When it comes to power, a little larger is better than a little too small. Your device will only draw the amount it requires. Reusing an older charger is fine if it is powerful enough.

The latest technology in power adapters is gallium nitride, usually abbreviated GaN. These adapters tend to be smaller and more powerful than previous chargers. Some of them are powerful enough to handle a Chromebook or a couple of phones at the same time. Unfortunately, they require USB-C.

If you need a suggestion for your new smartphone, the Anker Nano II 45-watt charger is a great choice.

One word of caution: avoid the temptation to go for a bargain-priced power adapter. Safety margins matter. Even a well-designed high-quality adapter can develop problems. Bargain-priced adapters are no bargain in the long run.

**Q.** Will my computer be able to run Windows 11 when it is released?

**A.** As of late summer when I write this, no one knows for sure. Windows 11 betas arrived amidst a surge of excitement a few months ago, but mixed messages have left a trail of confusion about compatibility with existing hardware.

Although beta programs can seem almost routine, most people should avoid them. Significant changes before launch are common. There is a balance to be struck which can only

be found once the operating system is tested on thousands of computers.

Microsoft's initial Windows 11 hardware requirements touched off a backlash by some stummel? To make a tough situation harder, there were conflicting messages about exactly what the requirements were, and the test app to check for Windows 11 compatibility was pulled back for inaccuracies.

*(Continued on page 11)*

(Continued from page 10)

One of the reasons the requirements question is so challenging is because there are just so many of them. That makes simple statements like "less than four years old" impossible.

Until the official release, the best thing to do is wait. Only then will we have enough information to evaluate Windows 11.

**Q.** I was able to install Windows 11 on my PC. What should I do?

**A.** Move that Start button back where it belongs! The Start button has been at the bottom left of my screen for decades, and that is where I think it belongs. To move it, right-click the Task Bar, and choose Taskbar Settings -> Behaviors -> Alignment -> Left.

Next, open Windows Settings and double check the privacy settings. They should be unchanged if this is an upgrade install, but a quick review is an ounce of prevention.

There are also new options in the Accessibility -> Visual Effects section of Settings. Two of them will tone down some of the Windows 11 design choices: enable always-visible scrollbars and disable animation effects.

Windows 11 has beefed up Widgets since Windows 10. Widgets provide quick access to information that is important to you. To make the most of it, configure it with the Widgets you find useful, and deactivate the rest.

The Action Center on previous versions of Windows is now known as the Notification Center, and it can be accessed from the Date and Time icon on the Task Bar. If there is a tip you think other readers should know, please send me an email.

**Q.** I need a last-minute gift suggestion for a family member. I prefer a tech gadget that will have an impact.

**A.** One of the challenges of tech gadget gifting is finding something that fits into the recipient's lifestyle. Often you have to know details about the devices they already own to find something that fits.

Device compatibility is a minefield of options that no sane person can navigate alone, so tech gifts are often safest in the form of a gift card. Just be sure to get the right one. For an Android user, a Google Play Store card is a good choice. If they own an iPhone or iPad, try an Apple gift card.

But gift cards have downsides, especially if you do not know which device they own. There is one gift this year that I think will be special. Apple's new HomePod mini paired with the new

Apple Music Voice Plan. (\$99 plus \$4.99 a month).

The HomePod mini is a speaker with two requirements: household Wi-Fi and a source of music.

While the HomePod mini will work with different music sources, that gets complex. Add the Apple Music Voice Plan instead, which enables the HomePod to play 90 million songs, along with hundreds of playlists to suit every occasion, just by asking. No commercials, no data collection. Just music. If I had grandchildren of my own, that is what I would get them this year.

**Q.** We are moving next month. I do not know how I will every properly re-connect all the cables and devices we use. Help!

**A.** The number of wires we have in our lives has exploded in the last decade. Whether moving a TV from one room to another or relocating a house full of products to a new home, the best approach is to label everything first.

There are specialized labels designed just for wires. A quick Internet search for "wire label stickers" will turn up dozens of options to help you label every device you own. Here are a few specific strategies to consider. The most important is to label every cable with the name of the device it matches.

Color-coding is handy for devices that have more than one cord. Consider a typical television. At minimum it will have a power cord and a signal cable, but it could easily have a half-dozen or more connections that use the same style connector. In this case, add a color to each wire's label, then add a tiny label with the same color to the device near where the cable plugs in.

Moves are always stressful and making labels for all your wires may seem like just more work. But the payoff will be well worth the effort.



## Never Charge a Device That Has Just Been in Below Freezing Temps

It's not good for the battery, and also it could explode

[Read More](#)



# Tom's Tech-Notes

## Shopping for a New Smartphone

By Tom Burt

Sun City Summerland Computer Club.

<http://www.scscc.club>

I've been looking at new smart phones for a few months and now, with "Black Friday" and "Cyber Monday" sales in full force, it seemed like an interesting topic for a monthly column. As with most technology, the purchase process has become very complex. Smart phones have evolved to where what you're buying is a mobile computer that can also make calls on the cellular phone network.

Here at Casa de Burt, both Mrs. and I have fairly simple, low-end LG Android phones with 5-inch screens, modest cameras and minimal storage. Originally, we had these mainly for emergency use when out and about. However, inevitably, they become more integral to one's daily existence in the modern technical world. Also, LG is existing the smart phone business and our phones' versions of Android are well out of support, so compatibility with future apps is a growing concern.

### Carrier Technology (4G / 5G)

The cellular phone / data network has evolved over the years through successive generations: 2G, 3G, 4G, 4G LTE and now 5G. A 6G standard is already in the works. If you're interested in a deep dig, here's an extensive article describing the history and current state of signaling technology: . [https://en.wikipedia.org/wiki/Cellular\\_network](https://en.wikipedia.org/wiki/Cellular_network)

The older generations of the 3G GSM standard are now being phased out. Older cell phones that can only access GSM cell networks may no longer work after mid-February, 2022. If buying a new phone, just check to see if it's compatible with T-Mobile/Sprint, Verizon or AT&T. Most new unlocked phones are compatible with all three.

All newer phones support 4G and 4G LTE; many support 5G. The main difference between 4G and 5G is that 5G offers higher data speeds. If you're



not getting reliable 5G service from your carrier, there's little benefit in having a 5G phone.

### Phone Brand and Hardware Specs

The major makers of cell-phones include Apple, Samsung, LG, Motorola and Google. Apple and Samsung are the major players in the US, with a combined 78% market share. LG is reportedly leaving the cell phone business.

Key hardware features to pay attention to are:

### Processor cores and speed

New Apple iPhones use custom Apple-designed 6-core processor chips (A14, A15) that support the ARM (Advanced RISC Machines) instruction set with Apple extensions. New Android phones use ARM architecture processors primarily from Qualcomm (Snapdragon series), Samsung (Exynos series), MediaTek (Dimensity series), HiSilicon (Kirin series) and Google (Tensor series).

The latest Android phones are coming with 8-core 64-bit processors running at up to 2.8 Ghz clock speeds, so they compare well to mid-range desktop processors.

As you might expect, a higher-end processor yields

*(Continued on page 13)*

(Continued from page 12)

better performance for running apps on our phone.

### RAM memory

New smart phones come with 1G-byte to 4 G-bytes of internal RAM (memory for running active programs). More RAM is better but will increase the price of the phone. I'd recommend at least 2 G-bytes of RAM for running newer versions of Android (10 or 11).

### Onboard solid-state storage

Newer phones now offer anywhere from 16 G-bytes to 512 G-bytes of onboard solid-state data storage. The data stored includes the operating system, all apps and all end-user data. If you use your phone to store videos, pictures or music, you'll want a phone with at least 32 G-bytes of storage. Most phones allow you add in a SD flash card for additional storage.



### Screen size and pixel resolution

Most new phones have a physical screen size close to 6.5 inches by 3 inches. Resolutions (pixels per inch) vary, with higher resolutions costing more. A typical mid-range screen (Moto G) is 1600 x 720 – about 267 pixels per inch. Some Apple 13 iPhones with Retina displays have 460 pixels per inch resolution.

### WiFi connectivity

Virtually all smart phones can connect to a WiFi router and use it to connect to the Internet for web

surfing, email and many “connected” apps. Most phones now support connecting via either the 2.4 GHz or 5 GHz bands using the 802.11AC standard. Some newer phones now also support the WiFi 6 (802.11AX) standard. When shopping, look for 802.11AX or WiFi 6 to “future proof” your phone. However, 802.11AC (WiFi 5) is still fine.

### Bluetooth connectivity

Bluetooth is a short-range radio connection alternative to WiFi. It's handy for connecting to your car's in-dash entertainment console for hands-free phone operation or for connecting your phone to a Bluetooth headset (again for hands-free calling). With appropriate apps, you can also use Bluetooth connect to other users' phones when there's no WiFi router nearby.

### Motion sensing / Accelerometer

Many newer phones have a built-in accelerometer. These are often used by gaming and virtual reality apps so that your phone's motion can be tracked, allowing it function as a game controller or a game weapon. Or it might be used to sense activity while you're working out.

### Headphone Jack

A headphone jack is important if you want to plug in wired headphones so you can listen to music or videos on your phone without disturbing others. There are now also inexpensive rechargeable wireless Bluetooth earbuds that allow you to listen, even if the phone lacks a headphone jack. Gigabyte Gazette 11 December 2021

### USB connector

Newer Android phones come with a USB-C (small, symmetric) connector that can be used for both charging and for passing data between the phone and another device. Older phones used a “micro-USB” d-shaped connector. The charging cable for your phone should have the correct connector on one end and a USB-A (rectangular) connector on the other.

### Battery Life

Most new smart phones have batteries rated 4000 to 5000 milliamp hours, which translates to 36 to 40 hours of talk time. Generally, a higher capacity battery gives more talk time, but this will depend also on the processor speed, the amount of RAM and storage, the apps you use and how much data is trans-

ferred over the WiFi connection. Phone Software Features Apple iPhones run Apple’s proprietary iOS (12, 13 or 14) operating system. Phones from other makers primarily run Google’s Android operating system; newer phones typically are running Android 10 or 11. Some inexpensive Chinese phones may be running Linux-based operating systems that can also run Android apps. For example, Huawei, which is now banned in the U.S., uses its own HarmonyOS in its Chinese smart phones.

Out of the box, the features of a smart phone are determined by its operating system and the built-in apps. For the Apple iPhone, the Apple app store offers an extensive catalog of additional free and paid iOS-compatible applications. Similarly, for Android phones, the Google Play store offers an extensive catalog of free and paid Android-compatible applications.

Baseline bundled apps for all phones include a phone app (includes contacts), a text messaging app, the settings app, a file manager app, a camera app and an app to interface to either the Apple app store or the Google Play store. Commonly you will also find a photo viewer, a music player, a video player, a web browser and an email app. There may also be vendor-specific apps added by your phone carrier.

Many new phones offer facial or fingerprint recognition to secure your phone while not requiring a PIN or password to unlock the screen.

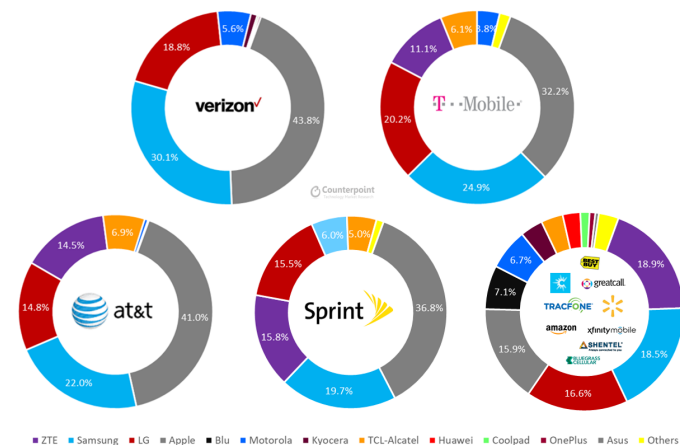
### Shopping Options

You can buy a new phone at many retail stores or at online retailers. Many of these are packaged with a prepaid plan from one of the carriers. You can also buy phones directly from the various carriers at the retail or online stores. Often, the carriers have the best pricing, but the phones will be “locked” to that carrier’s network. “Unlocked” phones (compatible with many or all carriers) can be bought, but prices tend to be higher. Be careful buying phones on eBay – especially “used” phones.

Many of the carriers offer phones at large discounts but require an expensive phone plan to get the good pricing.

After you buy the phone, you may need to get a SIM (Subscriber Identity Module) card for it from your preferred carrier and then activate the phone

on that carrier’s network.



### Buying a New Phone from a Carrier’s Phone Store – Experiences

As noted above, you can often find some really good deals by shopping your current carrier’s online or brick and mortar store. Phones you buy from your carrier will be “locked” to that carrier’s network, but if you like your current plan, that should not be a problem. Mrs. Burt has a low-cost prepaid phone plan with Boost Mobile (subsidiary of T-Mobile / Sprint) and we were able to buy her a very nice Motorola Moto G Pure phone for \$59.99 (pre-Black Friday special) In the screen shot from the Boost Mobile website, the price had dropped to \$49.99 on Black Friday). The Moto G Pure has 3GB of RAM and 32GB of onboard storage and is powered by a MediaTek 8-core CPU and runs Android 11. For Mrs. Burt, it’s a perfect fit for her needs. As I write, we’re waiting for the new phone to arrive. Her current LG phone and the new Moto G both use a “nano” SIM. So, once the new phone arrives, it’s a fairly simple matter to move the SIM card from her current LG phone to the new Moto G and register the new phone on the Boost Mobile website.

My experience with the AT&T website was less successful. All their phones for regular plans are offered on a 36-month time contract. You pay a certain amount per month (\$5 to \$20, depending on the phone) and, after 36 months, you own the phone. However, to get those good prices, you have to buy a plan that costs at least \$75 a month! After 36 months, you can trade the old phone in and get a new one, starting another 36-month time contract. Effectively, the customer is renting the phone. The AT&T prepaid plans offer a small selection of phones for flat purchase prices. All these phones are locked to the

(Continued on page 17)

# Solid State Drives – What's New

Tom Burt, Vice-President  
Sun City Summerlin Computer Club  
<https://www.scscclub>



Solid State Drives (SSDs) have been around for quite a while. However, prices have come down while capacities and performance have gone up. As a result, adding an SSD to an existing system has gone from being a luxury to a practical way to increase the performance of a desktop or laptop significantly.

SSD capacities have grown from 32 GB to 64GB ten years ago to 256 GB, 512 GB, and 1 TB today. So if you're flush with cash, you can get a 2 TB SSD.



A majority of SSDs are sold as 2.5-inch drives with a SATA controller and power supply. These drives look to PC hardware and software just like a regular hard disk drive. Most SATA SSDs are rated as SATA III, which can deliver data between the drive and the motherboard at 6 billion bits per second.

Sequential read/write speeds are now up in the range of 500 Megabytes per second for top-line SATA III drives. In addition, for random I/O, high-end drives are rated at up to 100,000 input/output operations per second. This makes SATA SSDs about three times faster than hard disk drives.

Two new SSD PCIE card form factors have begun to supplant the SATA format in the past five years.



One is a small card that combines flash memory chips and a SATA controller. It plugs into a special M.2 socket on the

motherboard. To the PC's CPU, it appears as a secondary SATA controller. These cards are recognizable because they have two notches (B+M) in the connector end. Performance is comparable to a 2.5 inch SSD, but the card takes up much less space and uses less power. As a result, these are now popular in laptop PCs.



The second new form factor is called NVME (Non-volatile Memory Express). An NVME SSD does not include a

SATA controller; it is directly connected to the PCIe data bus of the motherboard via a simple memory controller interface. The NVME SSD card also plugs into an M.2 socket on the motherboard. The NVME SSD card only has a single notch (M only) in the connector end.

For more details on the M.2 slot, see the following: <https://www.howtogeek.com/320421/what-is-the-m.2-expansion-slot/>

Topline NVME SSDs like the Samsung 980 Pro above can read data at up to 7000 megabytes (56 gigabits) per second if installed on a motherboard supporting PCIe 4.0. This is about 12 times faster than a SATA hard drive. The 1TB 980 Pro unit retails for about \$200. A mid-range unit like the 1TB Samsung 970EVO retails for about \$140 and can read at up to 3500 megabytes (28 gigabits) per second.

The significant performance difference in SSDs is that they can instantly access a block of data anywhere in the drive's memory. By contrast, a hard disk drive must position the read/write heads to the correct track and then wait for the desired block to rotate under the heads. This access time can take up to 10

*(Continued on page 16)*

(Continued from page 15)

milliseconds or more – easily 5,000 times longer than the SSD. In addition, the newer NVME SSD cards can transfer data 6 to 12 times faster than a SATA drive can.

Upgrading a PC to use an SSD can take either of two routes: adding the SSD to an existing desktop PC while keeping the PC's original hard drive installed; the second is to replace the PC's hard drive with an SSD. The second approach is the only practical one; there isn't room in the laptop for two drives. However, the first approach may be more satisfactory for desktops since it combines high performance while not forsaking high storage capacity. For example, you can use the SSD to store the operating system, applications, and very frequently accessed data files and then use the much larger hard disk drive to store all your other documents, photos, music, videos, and such.



Most new motherboards come with at least one M.2 connector, so adding an NVME or SATA M.2 SSD is possible if you're building a PC

desktop tower. In the image at the left, there are screw holes for three different lengths of M.2 card. 80 millimeters (the one with the screw) is the commonest. For commercially-made brand-name desktops, you may have to go with a 2.5 inch SATA III drive connecting via a SATA cable to one of the SATA ports on the PC's motherboard. In a laptop, that will also likely be the case; you will replace the laptop's hard drive with a 2.5 inch SATA SSD. However, for a desktop without an M.2 connector, you can also buy a PCIe to M.2 adapter card that has an M.2 connector on the card and plugs into a PCIe slot on the motherboard. These adapters cost \$10 to \$15.

For a tutorial on installing an M.2 SSD, see the following: <https://www.techradar.com/how-to/how-to-install-an-m2-nvmesata-ssd-on-your-pc>.

In upgrading to an SSD, you will need to consider whether to reinstall your operating system (Windows, Mac OS, possibly Linux) and applications from scratch or attempt to copy (clone) your existing system to the SSD. If you wish to copy your current hard drive's system, you will need an imaging or cloning tool such as Acronis True Image, Casper, or Macrium Reflect. The challenge is to get the size of

your operating system's hard disk partition to be no larger than the size of your new SSD. There are many complications related to this, and details are beyond the scope of this article. However, you might want to stop by our Tuesday Hardware / Software Repair SIG and get some advice before diving into an SSD upgrade.

If you're now convinced, an SSD is the way to go, what's the best size and make to buy? Lower-end SATA drives are often on sale for about 12 cents per gigabyte. These drives are OK but may not be as fast as the top-end drives. Higher-end drives are selling for about 20 cents per gigabyte. The Samsung EVO series drives get very high ratings and have some of the best performance specs at very good prices.

Other brands are good also but read the recent reviews carefully. A few years ago, some vendors got good initial reviews on their solid-state drives and then switched to cheaper, slower memory chips. Check the usual online stores (Amazon.com, NewEgg.com, TigerDirect.com) and watch for sales. A 500 GB drive is very attractive at current prices, and you will most likely not run into capacity issues.

**lifehacker** | Do everything better

- ◇ [How to set Up Private Relay on iCloud+](#)
- ◇ [How to Organize All Your iCloud Photos](#)
- ◇ [7 of the Best Cloud Storage Services That Are Cheaper Than iCloud, Google One and OneDrive](#)
- ◇ [The Best Printers of 2022](#)
- ◇ [Fix: Why Does My Wi-Fi Say "Weak Security" on iPhone?](#)
- ◇ [How smartphone will get smarter in 2022](#)
- ◇ [Phone not charging? Try this simple toothpick trick](#)
- ◇ [What Are the Security Risks of Cloud Computing?](#)
- ◇ [The Best Free Online Courses Everyone Should Take This Year](#)
- ◇ [40 of the Best Android Hacks of 2021](#)





### Media Reviews for Kids

Common sense media is essentially resource for parents and grandparents to help them evaluate age sensitive content in various forms of entertainment.

[Commonsensemedia.org](http://Commonsensemedia.org)

### COVID-19 Vaccine Information

COVID-19 vaccine information test CDC page has links to the details about COVID-19 vaccine booster program.

[Cdc.gov/coronavirus/vaccines/](http://Cdc.gov/coronavirus/vaccines/)

### Imaginary Movie Directory

Imaginary movie dictionary both a novel concept any fun detour a site that catalogs official shows that appear inside fictional movies and TV shows

[nestflix.fun](http://nestflix.fun)

### Hard to Find Ebooks

Arc Manor is a small publisher with an extensive eBook catalog that includes science fiction fantasy and romance.

[Arcmanorbooks.com](http://Arcmanorbooks.com)

### Cable Labels

This store looks in dextral at first glance, but they carry a number of useful products for residential organizing products

[Cableorganizer.com](http://Cableorganizer.com)



(Continued from page 14)

AT&T network.

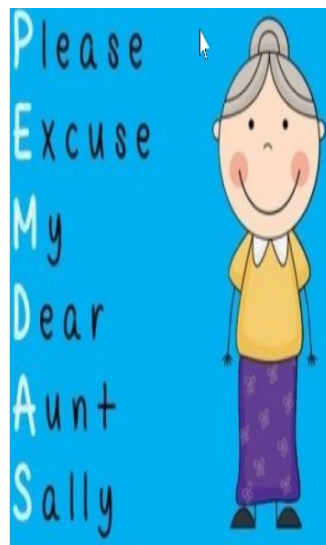
I looked at Verizon and their plans, phone prices and terms are about the same as AT&T's.

I'm strongly considering switching from AT&T to Boost Mobile and getting a Moto G for myself.

### Final Thoughts

Your choice of smart phone depends a lot on your needs for connectivity as well as how you use the phone as a mobile computer. Phones eventually wear out, but most succumb to mishaps like getting dropped, dunked or lost. With care, a phone should last 5 years or more – long enough to where it will become obsolete before it wears out.

Lastly, in buying a smart phone, don't forget its phone functionality. You won't be happy if your phone drops calls or has poor reception. Read the online reviews before buying and look for comments about phone reception.



**Answer:** "Please Excuse My Dear Aunt Sally" is a very handy mnemonic intended to help algebra students remember the order of operations when simplifying math problems. It stands for Parentheses, Exponents, Multiplication, Division, Addition, Subtraction, with the first letter of each word creating the acronym PEMDAS. The order of operations is a rule that tells you the right order in which

to solve different parts of a math problem. In other words, in any math problem you must start by calculating the parentheses first, then the exponents, then multiplication and division, then addition and subtraction.



## Sale of True Image Perpetual

Acronis terminated their True Image Perpetual License about a year ago for good reason. This product is updated and supported for only the first year it is released. Users tend to run this product for 3 to 5 years after it is current and safe. Since a recent backup is the best protection against Internet hackers, it is often the first protection that hackers target. Naive users think that they are protected if they take regular backups after the first year. They may find that they only have corrupted backups when they most need a clean restore.

There are three tricks that will let you run an older Perpetual License safely:

- 1- Uninstall True Image Perpetual from your hard drive after the first year and run all future backups from your bootable CD or thumb drive. Remove your bootable media from your computer between backups. This prevents hackers from messing with your backup program to prevent good backups in the future.
- 2- Save your backups on an external hard drive. Physically disconnect your external hard drive between backups, to prevent hackers from deleting your backup image files.
- 3- Make sure you do full backups each week. Without having your True Image do automatic backups,

## Sale of True Image Perpetual

[To ugr7.com](http://To ugr7.com)

you can easily forget to do your weekly backups.

Follow these three steps and you can safely use True Image Perpetual for several years.



Unfortunately, Acronis is no longer selling True Image 2021 Perpetual licenses and so I cannot get them for you. However, I do have a limited number of extra Licenses of recent True Image Perpetual Licenses that I can offer you. During the past 5 years Acronis has focused on enhancing their subscription products and so their base True Image Perpetual product has seen little changes. All of these products will run on Windows 10, 8/8.1, and 7, unless otherwise noted.

**Available in limited quantities are True Image Standard (Perpetual License) for 2020, 2018, 2017, 2015, and 2014.**

**These are available on a first come, first serve basis at just \$19 per license. Once these are sold, there will be no more available. These come as is without technical support from Acronis. They do have available the full True Image User's Guide and my True Image Starter Guide.**



## 30 Movies That Are Basically Perfect



### Computer Services

**Desktops,  
Laptops,  
All-in-Ones  
and more**



### YouTube Videos

- ⇒ [Complete Robocall Defense](#)
- ⇒ [Virtual Box & Custom Linus Install](#)
- ⇒ [Encryption Software & Safety for Seniors](#)
- ⇒ [Learning Linus—Beginners Review & News](#)
- ⇒ [It's all about the Pi, Raspberry Pi](#)
- ⇒ [Introduction to Geocaching](#)
- ⇒ [Computers to the Moon](#)
- ⇒ [GIMP, Editing Vacation Photos with Layers](#)
- ⇒ [Making Your Own Travel Maps with Google's MyMap](#)
- ⇒ [The State of Tesla Eclectic Vehicles](#)
- ⇒ [Learn all About VPN](#)
- ⇒ [Windows 11 Workshop](#)
- ⇒ [Learn all About VPN](#)

During our October Zoom meeting the following two computer services were mentioned.

#### White Box Computers

They say they are the place for all your computer repairs & upgrades at nearly half the prices of the competition.

<https://whiteboxcomputers.org>

**847-833-9324**

#### ZYTEK Services

Has been around for over 30 years and offers the best in fast, friendly, high-quality, fair price computer service solutions

**847-336-2259**



**Answer:** The purpose of buying houses and hotels in the game Monopoly is to increase the rent on a property. This is the most evident and easiest way to win the game. In the classic version of Monopoly, houses are small green buildings and hotels are larger red buildings. Before you buy any houses or hotels, you must own all the properties in that color group. When you have four houses on each property in a color group, you can buy a hotel. You receive the highest rent when you have a hotel on a property, so this is the ultimate strategy for winning the game.

## Windows 10 News and Tips

# PCWorld

## How-To Geek

There's nothing like a daily dose of information to keep us abreast of the latest computer and technology.

Join the [How-To Geek](#) club...



Shop at [smile.amazon.com](https://smile.amazon.com) and Amazon donates to the Lake County Honor Flight!

*if you are an AmazonSmile customer, you can now support Lake County Honor Flight in the Amazon shopping app on your Android device! Simply follow these instructions to turn on AmazonSmile and start generating donations.*

1. *If you have the latest version of the Amazon Shopping App, open the App on your Android device.*
2. *View Settings and select AmazonSmile.*
3. *Follow the in-App instructions to complete the process.*

*If you do not have the latest version of the Amazon Shopping App, update your App. Click [here](#) for instructions.*



[lakecountyhonorflight.org](https://lakecountyhonorflight.org)

## Support Lake County Honor Flight.

When you shop at [smile.amazon.com](https://smile.amazon.com),  
Amazon donates.

[Go to smile.amazon.com](https://smile.amazon.com)

# Member's Area



## BUSINESS CARDS



**Pegasus**  
OPEN AIR PHOTOBOOTH

847.372.8186  
pegasusphotos.smugmug.com

**JIM JACOBS TRIO**  
*Jazz Standards*  
THURSDAYS 6:00-9:00 PM

*Deerfield*  
*Italian Kitchen*

CONTACT JIM AT 847.372.0656 OR JIM.JACOBS@MUSIC@GMAIL.COM



Phone: (847) 623-3815

## Members



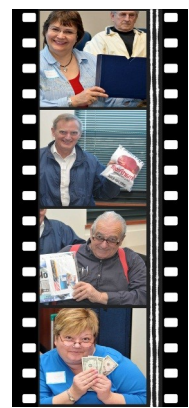
### Members Web Sites

e-mail me at [editor@lcace.org](mailto:editor@lcace.org)

[www.pegasusphotos.smugmug.com](http://www.pegasusphotos.smugmug.com)



Take a good  
look, you just  
might see  
yourself.



[LCACE Photo Albums](#)

**Liz Barnett**  
Chief Cookie Baker

Phone: 847-494-4222  
E-mail: [Liz@LoveMyCookies.com](mailto:Liz@LoveMyCookies.com)

[www.LoveMyCookies.com](http://www.LoveMyCookies.com)  
[www.facebook.com/LoveMyCookiesLizB](https://www.facebook.com/LoveMyCookiesLizB)

*Custom Cookie Treats for any Occasion!*

**Genealogy Your Way**  
Special Computer Services

**Bobby Jacobs**  
847-372-0660

[bobby@scs4now.com](mailto:bobby@scs4now.com)  
[scs4now.com](http://scs4now.com)

**LAKE COUNTY HONOR FLIGHT**

847.282.0374  
[info@lakecountyhonorflight.org](mailto:info@lakecountyhonorflight.org)

P.O. Box 1187, North Chicago, IL 60064  
[www.lakecountyhonorflight.org](http://www.lakecountyhonorflight.org)

**apcug** Member of  
The Association of  
Personal Computer User Groups