

# Glendora's Computer Club Gigabyte Gazette



September / October 2019, Volume 24, Issue 25  
Editor: Judy T aylour

**Meetings**  
2<sup>nd</sup> & 4<sup>th</sup> Wednesday  
1:00 – 3:00 pm  
La Fetra Community Center  
333 East Foothill Blvd.  
Glendora CA 91741  
626 914 8235

[www.gscclub.org/](http://www.gscclub.org/)

**October 9, 2019**  
**Your Smartphone is like a  
Swiss Army Knife**  
**Bill James, APCUG Advisor**  
**Speakers Bureau Member**

Bill's interactive webinar comes to us from Oklahoma City where he serves as the Vice President of the Computer Club of OK City.

Smartphones are capable of doing multiple tasks and Bill will show you how to make use of many of your smartphone's features (Android and iPhones). All it takes is the right apps and a different mindset to make the device work for you. Bill covers these topics and more: Use it as a remote control, control other devices within your home – Nest Programmable Thermostat, Roku, Google TV or Smart TV; remote printing using Cloud Print; view files using Cloud Storage; remote access to your desktop and productivity suite.

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**October 23, 2019**  
**Free Software with John Kennedy,**  
**APCUG Advisor, SB Member,**  
**Webmaster, East-Central Ohio**  
**Technology User's Club**

In John's area in Ohio, he's known as “Free John” since he uses Linux for his operating system and, almost exclusively, free software.

With this interactive webinar you will learn about the many alternative programs you can get for free to do your computing tasks. Many of these programs are cross-platform (versions for Windows, Macs, and Linux) so it's easy to share files with just about anyone.

*There will be live Q&A after each presentation!*

*The presenters will send Jim a PDF of their presentation; ask him how you can get a copy.*

## **Bad Memories**

**Author: Greg Skalka, President,  
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September 2019 issue, Drive Light  
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We are our memories. Our personalities and identities are tied to the information stored in our brains. We are who we are due to our memories of experiences, remembered preferences and lessons learned over our lifetimes. Without our brain's ability to store and retrieve memories, we could not learn, improve ourselves or differentiate ourselves from others as individuals.

Almost everything we do has to be learned, and thus remembered in some type of memory, and there are several types used by our brains. Some things, like the beating of our hearts or breathing, may not relate to memory, as we don't have to learn these things. A lot of other physical things, from simple things like walking or picking up objects to more complex activities like riding a bike or speaking, require memory, as we must learn them, as opposed to being born with these capabilities. These are attributed to what we sometimes call "muscle memory", something we remember how to do but don't consciously have to think about. We also appear to have a "scratchpad" short term memory, which can be used to store a small number of items (5 to 9) for a short time (maybe 15 to 30 seconds). This is what we use to remember a phone number read to us; without some reinforcement the information quickly bleeds away.

In more complex learning and in remembering experiences, the mind uses short term memory and then converts some short-term memories to long term. Long term memory is usually defined as memory lasting longer than 30 seconds, although long term memory of the last few days or years is also often referred to as short term memory. In some cases, injury or disease can affect memory, especially short-term memory. General aging, Alzheimer's disease and other dementias, brain tumors, blood clots and infections around the brain, head injuries and substance abuse can all cause short term memory loss. A common situation in these cases is a person that can remember in great detail events and people from 20 years in their past but is unable to remember recent events or people known for a short time.

Amnesia is a form of memory loss where the subject retains their identity and basic motor skills such as walking and speech but loses some memories or the ability to form new memories. One very common type is infantile amnesia, in which you cannot remember the first three to five years of life. In retrograde amnesia, you lose previously created memories, typically starting with most recent ones. Diseases like Alzheimer's gradually cause this type of amnesia. With anterograde amnesia, new memories cannot be formed. This can be a temporary condition, as in a black-out from excessive alcohol consumption, or permanent, when due to a brain injury. The 2000 movie "Memento" portrays anterograde amnesia.

A good friend recently told me about an incident he had not long-ago involving memory loss. He went to the gym after work one day as he was in the habit of doing, but he does not remember what he did there on that visit. His wife was called to the gym by the manager, out of concern that something was wrong with my friend. The manager said

my friend was looking for his gym bag and had repeatedly asked for the manager. He had asked for the manager's name several times during their interaction, even though the manager told it to him each time. Concerned that he'd had a stroke, my friend's wife took him to the emergency room, where after extensive testing it was found he had experienced TGA, or transient global amnesia. For about an hour and a half, my friend's brain made no short-term memories. Although he could otherwise function and knew where he was, he could not remember anything of his time at the gym or why he was there and was confused by it. He could remember his past and recognized his wife, but still has no recollection of events at the gym that day. It is not known what causes TGA, though it seldom results in a repeat incident.

I've since learned that another friend's wife had a TGA incident about 20 years ago. Hearing about these incidents and the stories my sister has told about her mother-in-law's Alzheimer's makes me wish there were some way to back up our human memories. I guess the closest we can get to that now is to take lots of photos and videos of our lives.

Computers and other tech devices also rely on memories to function, and there are a number of parallels to humans in the way memories are used and the problems they have. There are different types of electronic digital memories, and they are used in computers in different ways.

The two main types of digital memory are volatile, which retain their information only as long as power is applied to them, and non-volatile, which retain their information even without power. Volatile memories include both types of RAM (random access memory): static (SRAM) and dynamic (DRAM). Non-volatile memories include Flash memory (USB Flash drives and solid-state drives or SSDs), magnetic hard drives, floppy disks and optical discs. Memory is located in many places in most computing devices, including small blocks of high-speed cache RAM inside the microprocessor component, fast DRAM modules for main memory, SSD modules or magnetic hard drives for main OS / program / data storage and peripheral removable storage (USB, floppy and optical discs).

Just as with humans, computers and tech devices without memories cannot function. It is the information stored as operating systems, apps and data in our tech devices that give them their "personalities" and capabilities. A computer or smart phone with blank memory devices is just an empty, inert shell.

Memory failures can cause big problems for computers, as they do for humans. An unreliable main memory DRAM module can result in errant program operation and computer crashes. SSD or hard drive failures can mean data loss, programs that won't load and OS crashes.

Our electronic digital memories give us two advantages over our human memories - the ability to easily replace faulty components and the ability to back up our data, so faulty components don't result in a serious loss. Important data in non-volatile memory devices should be backed up or copied to other devices, so that a failure of the original device can be easily corrected by replacing the device and restoring the data from the

back-up copy. Bad volatile memories like DRAM modules can easily be replaced so computing can resume.

I got my first camera in grade school and have always enjoyed taking photos. I have taken quite a few over the years, and the quantity increased greatly once I got a digital camera and no longer had to worry about the cost in film and developing each shot represented. I now take thousands of digital photos and hours of digital video each year. It does provide that additional assist to my memory when I want to know when an event occurred, as I can check the date stamped on my slides or photo prints or the time/date stamp in my photo jpeg files.

Having digital photo files is great, as they don't degrade and can be backed up, but over the years the file size of photos has greatly increased. My first digital camera was just 1 Megapixel, and the photo files were only about 100 KB each. My latest camera takes 18 Megapixel photos, resulting in 10 MB files each. Such large files make great photos, but they have become difficult to share, at least in their full-size form. These files are really too big to email as an attachment, and while I have often put them up on a file sharing site to allow others to download, some folks I send them to have problems getting them. Even for those tech savvy recipients, downloading 30 GB of data can be a pain.

My son was recently married, and I took a number of photos and videos of the event and days surrounding it that I wanted to share with relatives. I wound up with about 20 GB of data to share. Since this was a one-time event with files going to only about eight recipients, some of which were out of state, I decided the best way to share was to copy the files to relatively inexpensive USB flash memory devices and give them out in person or mail them.

All I needed was about ten 32 GB Flash drives, which could be had for around \$8 each. I had previously bought some loose Patriot 32 GB drives from Amazon; these came in a cardboard envelope. I needed more, so I also bought some from Fry's Electronics; I got 32 GB individually packaged Samsung drives for about the same price on sale.

Our group's board meeting was just a few days after I bought the Fry's drives, and so I told the board about my need for USB Flash drives and the purchases I'd made. Our vice president then warned me about buying Flash drives online, as the quality can sometimes be poor. He claimed that parts that fail manufacturing tests can be intercepted from the dumpsters and sold online as "good" drives. I thought that unlikely from Amazon, but I soon found our VP's warning to be credible.

A few days after the board meeting, I started copying the files onto the USB Flash drives. I had used some of the Amazon drives and had only one left, and so started with it. During the copy process, however, it stopped and said the drive was full. I was only copying 20 GB onto a 32 GB drive, yet it had stopped with only about 4 GB put onto the drive. Windows File Explorer indicated the drive was 32 GB in size, but with only 4 GB on it, it said it had 27 GB of used space and 4 GB free. Something was definitely wrong with this drive. I recalled no problems with the others I'd bought in this Amazon batch, but also recalled that I had only put no more than 2-3 GB on any of them before giving them out.



*Bad Drive*



*Good Drive*

I pulled out my Fry's drives and all worked fine with the full 20 GB of files. I considered that it was possible that my Amazon drives could have been "counterfeits" pulled from the manufacturer's dumpsters and resold; after all, they came in unconventional (meaning no) packaging. The Fry's drives were shrink-wrapped onto cardboard holders, and so were more likely to have gone through the manufacturer's full process.

It is unfortunate that the Fry's drives are sold with additional packaging that winds up in the landfill, but it may be an additional indicator of an authentic, fully functional product.

### **The Internet is My Cookbook - Searching for Recipes**

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An oft-spoken motto around Casa de Burt is "Fight Boring Food." Most nights we stay home and cook, as this gives better portion and ingredient control. We enjoy ethnic food – especially Indian and Thai, though our repertoire includes all cuisines. Another challenge is coming up with recipes that work well for two. Often, we plan for a second meal as a way to get double duty from the original preparation.

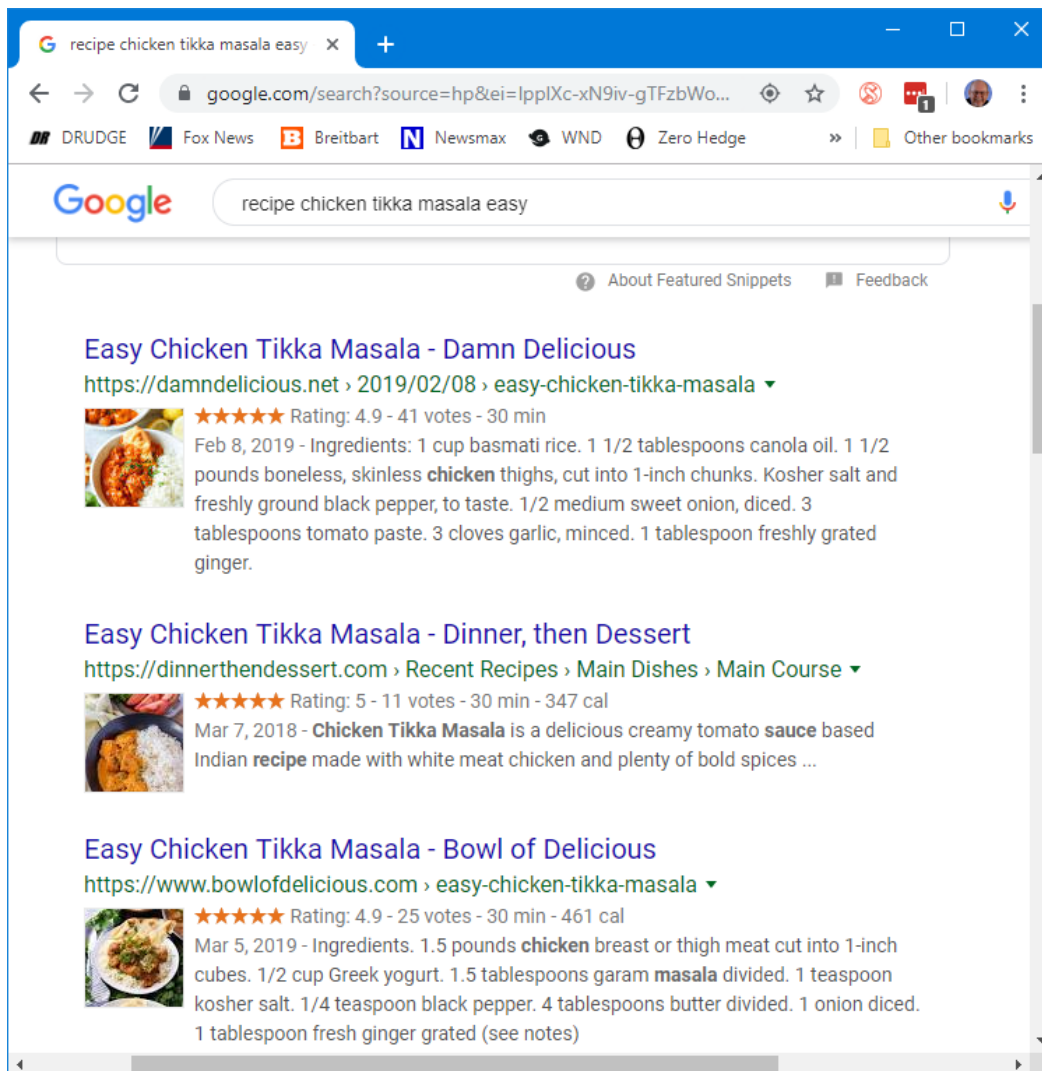
As part of the menu planning process, we sit down mid-week, after the supermarket flyers have arrived, along with an inventory of what's in the freezer and refrigerator. We then figure out the dinner plan for the following week. Each dinner typically includes a protein, a starch and a vegetable or salad and some fruit. Once we have a general plan, the challenge is to decide how a given meal will be cooked. The goal is to have lots of variety while keeping cost and effort low.

For example, we might decide to have chicken one evening. Will it be boneless-skinless breasts or thighs or a whole roast chicken or do we boil a chicken to make soup or we do cut up the chicken and do it oven fried or perhaps a pan fricassee? Another night it might be beef - steak, pot roast, braised brisket, fajitas, carne asada, roast prime rib, sweet and sour? And so on. The choice of prep for the protein in turn drives the choice of starch – rice, potatoes, egg noodles, pasta, bread and so on – as well as the choice of veggies or salad.

Often, especially for a preparation we haven't done for a while, I like to fire up my favorite web search engine and get an idea of how a particular dish is prepared. Usually I'll look over a dozen or so recipes to get a sense of what ingredients are fundamental to the dish, cooking time and temperature and any special techniques. Most dishes also involve a sauce or gravy. Once I know what it will take to make the dish, I note any unusual ingredients (e.g. fresh ginger, cilantro, coconut milk, scallions, tortillas) on the shopping list.

Now that I've got you salivating, let's look at a couple of real-world examples.

All recipe searches should start with RECIPE followed by your protein (or perhaps veggie), followed by the preparation. For example: RECIPE CHICKEN TIKKA MASALA EASY. Adding the qualifier EASY to your search homes in on recipes that don't have a lot of complex ingredients or preparation. Chicken Tikka Masala is actually a dish made popular in Britain, using Indian spices, chicken, tomato sauce and plain yoghurt. My search on Google turned up 3,260,000 hits – a few too many to read. But the top 10 or so provide all the essential information.





Many of the resulting recipes have star ratings that help you home in on ones that produce the best results. Clicking on a link takes you to the website where the details of the recipe – ingredients and preparation steps are detailed. Many of the recipes also have calculators to let you adjust the ingredients to the number of portions you want to make. Many also have lots of photos or even videos to help less experienced would-be chefs to understand the preparation.

## **Interesting Internet Finds – September**

**Author: Steve Costello**  
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*While going through the more than 300 RSS feeds, I often run across things that I think might be of interest to other user group members. The following are some items I found interesting during the month of July 2019.*

### **The Dumbest USB Gadgets You Can Buy**

<https://www.reviewgeek.com/5774/the-dumbest-usb-gadgets-you-can-buy/>

This is not the kind of thing I usually share, but I just couldn't believe some of the things shown. Also, if they are for sale, I assume someone is dumb enough to buy one (not you or me, of course).

### **Gmail For Mobile: Disable Conversation View?**

<https://www.askdaveytaylor.com/gmail-for-mobile-android-disable-conversation-view/>

Did you know that you can disable conversation view on your mobile (Android only for now)? Dave explains what conversation view actually is, and how to disable it in Android Gmail.

### **How to Use Windows 10 Quick Assist**

<https://davescomputertips.com/how-to-use-quick-assist/>

Has someone asked you for help with their computer? Use Quick Assist.

### **What is Android Bootloader? A Complete Guide**

<https://joyofandroid.com/android-bootloader/>

For those of you who like to know the inner workings of Android, this is a good guide to the bootloader.

### **OneDrive tips and tricks: How to master Microsoft's free cloud storage**

<https://www.zdnet.com/article/onedrive-tips-and-tricks-how-to-master-microsofts-free-cloud-storage/>

This is a great read for anyone who uses Microsoft OneDrive, especially for those who are using an Office 365 Home or Personal subscription.

## When 2FA Goes Bad

[https://askbobrankin.com/when\\_2fa\\_goes\\_bad.html](https://askbobrankin.com/when_2fa_goes_bad.html)

Yes, I know that everyone says you should be using two factor authorization on all you accounts that support it even if SMS messaging is the only option. But, I think you also need to be aware of what can go wrong. Bob Rankin talks about what happened recently to Reddit.

## How to Install Minimal Ubuntu on Your Old PC

<https://www.maketecheasier.com/install-a-minimal-ubuntu-on-old-laptop/>

I recently had a friend ask what he should do with an old x386 laptop with only 2GB of RAM. I told him he should put Linux on it. He did install Ubuntu on it and got everything running with only minor problems. If you have an old PC and want to try installing Ubuntu on it, check out this post. (Note: Other Linux distributions should work in a similar way. I have used both Ubuntu and Mint myself.)

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## Smart Devices in the home – With voice control

**Author: Phil Sorrentino, Contributing Writer,**

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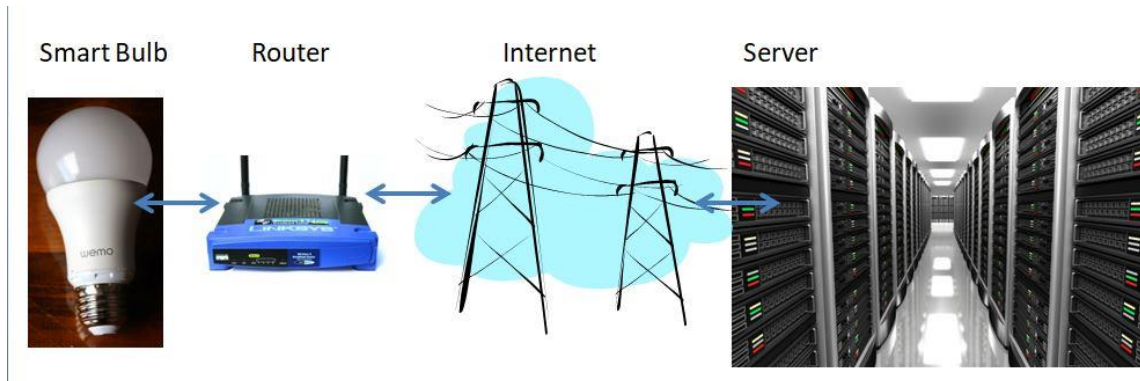
**September 2019**

**[www.scccomputerclub.org](http://www.scccomputerclub.org) / [Philsorr \(at\) yahoo.com](mailto:Philsorr@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.





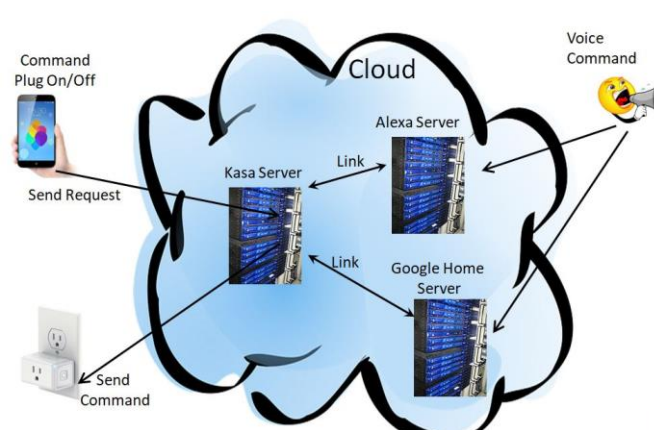
Once you have your smart device ready for installation, it is the App on your smartphone that takes over and steps you through the installation process. (Yes, a smartphone is required for the installation, either Android or Apple.) The App that you will use for installation will be the App from the specific 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 only; 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 7 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.



## Making Your Tech “Fit” – Does Size Matter?

**Author: Debra Carlson, Technical Advisor,  
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Q2 2019 issue, Tech Notes  
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Last quarter we talked about tech and eyes. This quarter we will talk about something that can be related ... **Does size matter?**

A few principles:

**Keyboards** -- “full size” addresses the width of keys but not the angle of the keyboard, height of the keys, pressure that is required to depress keys, or the optional keys and support for their programming.

“Ergometric keyboards” that force you to hold your elbows away from your body are “healthier”, in large part, because they force you to take breaks from typing. Keyboards with many curves do the same – and breaks are important.

**Mouse** -- If a mouse is too small it will stress your hand and wrist. It will also make it harder to relax while using the wheel for scrolling.

If you need to save money on one of these devices, save on the keyboard and spend on a mouse that fits.

Now for the more complicated size question – **the monitor.**

First, monitor size is both the physical size of the screen and the size of the items on the desktop (the screen with its icons, etc. is called the desktop).

Many writers say, “get as big a monitor as you can afford.” While this may work for the newer high-end televisions, it is possible to overload the optical sensors at the distance we use for computer monitors.

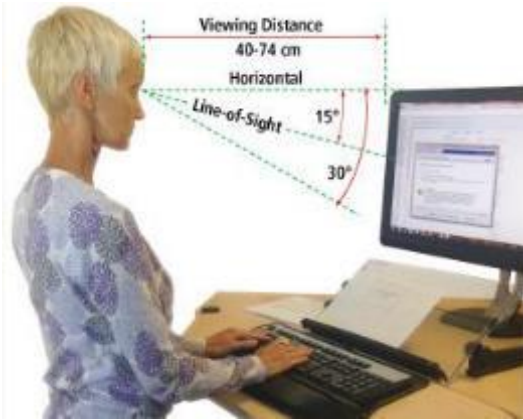
Monitor size is measured diagonally.

Approximate sizes on your desk are shown below.

Screen Diagonal	Screen Width	Screen Height
22"	19.2"	10.8"
26"	22.7"	12.7"
32"	27.9"	15.7"
37"	32.2"	18.1"
40"	34.9"	19.6"



OSHA (US Occupational Safety and Health Administration) suggests the following setup.



Optometrists suggest the monitor distance is 16 to 30 inches. (Mine is 29"/JT)

It is important to note that people who use bifocals / trifocals / progressive lenses will often need to look through the bottom of lenses if they do not use computer glasses so raising the monitor and setting it a bit farther back will help with neck strain.

It is important to place the monitor in a location that eliminates glare on the screen. This optimally means perpendicular to a window, but this may not always be possible. Options include modifying the natural (shades / curtains), or artificial light (sometimes this means turning on a light) when using the computer.

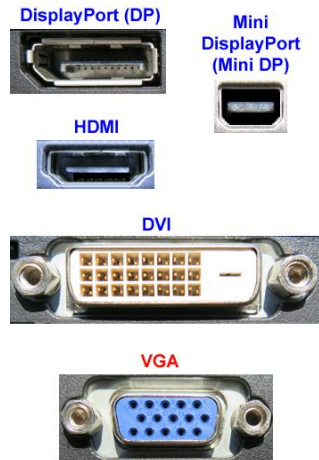
Standard resolutions (icon and font sizes) for current monitors are (many more are possible):

1280x720  
1366x768  
1600x900  
1920x1080

Generally, adjusting icon size more than 125% is not recommended unless you are using a discrete graphics card as it will cause slow response time and hanging / ghosting of images. Plan to mix changing resolution and setting icon size for best results.

It is usually possible to get a good 24" monitor for \$150 and a good 27" for between \$200 and \$250. Be sure you have a desk with space that allows you to move a monitor away from the chair before investing in a 32" monitor because of optical overload potential ... and invest in a 4K monitor if you are going that large to help avoid the pixilation that can happen on a large monitor.

If you are using a laptop, of course, sizes are different but resolution information is the same. Most laptops will allow attaching an external monitor for ease of use when sitting at a desk ... check to see what kind of connection you can make. Most laptops will use VGA or HDMI.



For all users – when replacing your monitor, futureproof your purchase by including DisplayPort or HDMI on the monitor or TV you purchase for your viewing pleasure.

Next month we will look at **Things in your hands** (mouse, stylus, pen mouse, finger, clicking, swiping, touching, and other stuff), followed by **Cords, Voice, Sound, and other hazards.**

## **Crowns and Computers**

**Author: Maryellen Amato, M.D., Member,**

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**July 2019 issue, The ICON Newsletter**

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Like most professions, dentistry has been deeply impacted by computer technology. Many dentists, for example, have been using digital x-rays. Several months ago in an article entitled Musings on Medicine, I discussed the advantages of using digital radiography, including quicker imaging times and decreased radiation.

Another major facet of dentistry that has been affected by computers has to do with the way dental crowns are made. A crown is a small prosthetic cap that fits over an entire tooth to restore its strength and appearance. A crown may be necessary for a variety of cosmetic and/or functional reasons. A tooth might require a crown if it is broken, racked, heavily decayed, worn, damaged in some way, or compromised by a root canal.

I had a number of crowns made back in the “old days” before the advent of computers. A tray of goeey putty was placed over my teeth for a few minutes and then the impression was sent off to a distant lab where the permanent crown was made. In the meantime, for the next two weeks I had to endure a fragile temporary crown.

All that has changed with CEREC-3d CAD/CAM. CEREC stands for “Chairside Economical Restoration of Esthetic Ceramic Crowns.” CAD/CAM stands for ‘computer assisted design/computer assisted manufacturing.’”



CAD/CAM has been used in industry for many years, but dental CAD/CAM applications were not available until the 1980s, and CEREC technology has only become popular in the last decade.

My dentist, Mr. Jeff, DD, was one of the first dentists in Springfield to embrace this technology approximately 10 years ago. He has made several crowns for me with this technique, and it was so much easier than the old method – and much faster, too. Instead of taking two visits and two weeks to get the permanent crown, it only required about two hours total in one visit to have the new crown made and placed in my mouth.



Ceramic tooth material

Here is what is involved: The first thing my dentist does is take a picture using a dental program which allows him to make a 3D map of my teeth, including top and side views. This allows him to design the crown chairside right then and there on his computer monitor, bypassing the need for filling my mouth with goop and sending the impression off to a lab. This computer data is then



The milling machine used to make crowns using CAD/CAM technology.

transferred wirelessly to a milling instrument that carves the crown out of a block of strong nonmetallic ceramic material. A block of a harder material is chosen for back teeth because they are subjected to stronger grinding forces. The milling machine (about two feet long by one foot wide) takes up to 30 minutes to make the crown, which is then bonded into place in the patient's mouth.

This method is so precise that there is virtually no risk of damage to adjacent teeth. My crowns also have a very natural feel because they are customized to my bite. They blend in well with the rest of my teeth and look and feel natural.

Dr. Jeff estimates he has made approximately 3,000 crowns using CEREC CAD/CAM. Currently only about 20% of dentists in the Springfield area have this technology, so if you need a crown, be sure to check if it is available at your dentist's office and ask how many crowns they have made using it, since like everything else with computers there is a learning curve.

In summary, I am very lucky that my dentist is on the cutting-edge of dentistry and that he could offer me this computer-based technology. I can attest from my personal experience that it is definitely easier, faster, and more accurate than the old method of creating crowns.

#### Tech Humor One-liners

Some things Man was never meant to know. For everything else, there's Google.

CAPS LOCK – Preventing Login Since 1980.

To err is human – and to blame it on a computer is even more so.



**Sad Story, Happy Ending**  
**Author: John Roy, President,**  
**The PC Users Group of Connecticut**  
**August 9 issue, The Program**  
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I have an Android phone and use Google Photos. I wanted to create some storage space on my phone and decided to delete photos that were already residing in the cloud in Google Photos.

Using a local photo application, I started deleting photos off my phone. Being a little tedious doing this one-by-one I looked for a select tool but couldn't find it. I then realized it was available on the Google Photo application so I then started some bulk deletes using Google Photos. I then had this startling revelation that I was deleting my cloud Google Photos and not the dupes residing on my phone. Panic quickly set in when I realized, in my haste, that I was no longer using the original phone application that was only deleting photos on my phone.

I took a deep breath and searched for recovery solutions. Hooray, there was an easy solution that I had never used. The photos were dumped into a trash bucket that holds deletions for 60 days. Following the steps below recovered the deleted photos.

Recover permanently deleted files from Google Photos in Trash

Files that are accidentally deleted from Google Photos will stay in your trash for 60 days. So, if you permanently delete your photos or video on your phone, you can try to fully retrieve them back in Trash during this period.

1. Open the Google Photos app and tap on "Menu." Then select your "Trash" folder.
2. All of your deleted files will be listed. Simply select the photos or videos you wish to recover, and then tap the Restore button to restore them.

Another sad story.....

**Lock Up Those Photos**  
**Author: Bill Crowe, Forum Leader,**  
**Sarasota Technology User Group, FL**  
**October 2019 issue, STUG Monitor**  
**[www.thestug.org](http://www.thestug.org) / [director1 \(at\) thestug.org](mailto:director1@thestug.org)**



Last month I lost my wallet. Not a good day. I knew the last time I had used the card, and from there I went straight home. They did not have the card at my last stop, so I had either lost it on the way to the car or at home. After an extensive search, I had to go about cancelling and replacing all my credit cards. I had to do the same for all my other cards like medical cards, Driver's license, Costco's, and others. Not a fun job. The job would have been so much easier if I had kept a record of all my cards. I got to thinking

that if I had taken a picture of each card (front and back), I would have had them on my iPhone. That would have solved the problem.

Thinking about it further, what if someone got my phone or was able to access my iCloud and gain access to my info? All my cards were there for the taking. I was hoping that there was a way to lock photos on my iPhone, but Apple has not yet provided one. I knew there must be an app for that, and 'By Golly' there is.



## Private Photo Vault

Keeping your photos private

*Credit: [www.privatephotovault.com](http://www.privatephotovault.com)*

There are, of course, many applications that can do it, but one of the best is called Private Photo Vault. The following is a brief introduction to Private Photo Vault. Private Photo Vault is one of the best free applications to protect your personal photos and videos by password/pattern-locking. This feature-rich app allows easy album organization by allowing you to transfer images and videos from iPhone's photo app to your new protected album. All you need to do is select photos you want to hide and password-protect them on your private album.

Private Photo Vault has a tri-protect system. You can either hide your photos via a secure password system or a nifty pattern lock system. There's also a pin lock option that lets you hide an image by entering a 4-digit pin.

Of many additional features, my favorite is the decoy password option. It allows users to enter two passwords – one for general access and another for those albums you want to really secure. With a smooth interface, and simple yet extremely secure protection option, the app is a good way to hide your photos on your phone.

By the way, the end of my story is that after I cancelled most of my cards, I found the wallet. It was in about the only place in the house I had not turned upside down.

See the tutorials at <https://privatephotovault.com/tutorials/>

### **Making Your Tech “Fit” – Things in Your Hands**

**Author: Debra Carlson, Technical Advisor,**

**CVC Computer Club, CO**

**Q2 2019 issue, Tech Notes**

**[cvc.computer.club \(at\) gmail.com](mailto:cvc.computer.club@gmail.com)**



Last quarter we talked about monitors. Now we will talk about Things in your hands.

Do you have hand, shoulder or neck pain while and after using your computer? Spend hours online without moving? Taking breaks is helpful, of course. Having good habits can help avoid some potentially debilitating conditions:

- Carpal tunnel syndrome happens when pressure on the inner wrist makes the median nerve swell causing numbness, tingling, pain, and weakness.
- “Mouse shoulder” (pain in shoulder, upper arm and forearm) can happen when time is spent slouching while moving the hand. It leads to muscle strain of the shoulder girdle or the spine itself.
- A mouse that fits the hand poorly can also cause thumb tendinitis.

Computer peripheral manufacturers mention three mouse grip styles: palm grip, claw grip, and tip grip.

1. The palm style mimics holding the mouse like a doorknob. Most of the palm / finger surfaces are in contact with the mouse and most of the hand's weight lies on it. Mice built for palm grip are big, wide, have a “hump” on the back, and an area to rest the middle or ring finger.

2. The claw grip arches the hand -- only the fingertips and a small part of the palm contact the mouse. It takes less hand weight to "flick the mouse" making it easy to change the cursor's aim. The hump on the mouse back is smaller, and the mouse is smaller than one built for palm grip.

3. Tip grip is "all" fingertip. No part of the palm touches the mouse. It's faster and more agile than claw grip, but also more tiring. Making small adjustments on the screen such as photo edits, can be tough because the mouse moves so quickly. These are small, like "travel" mice. If not from overuse, pain often comes from using a mouse that, because of mis-sizing, requires an awkward grip or too much pressure to click.



So, what can be done to minimize problems –

1. Figure out your grip type and buy the right mouse for it. If you can, go to a store and "try" some mice. If that isn't practical, pay careful attention to the size on the description -- and its relationship to your hand size. Don't wait until you hurt to start using a mouse correctly or to find a mouse that fits your grip style.
2. When you're using a computer, keep the mouse a little above elbow height with your wrists relatively straight.
3. Take frequent breaks to avoid repetitive stress injuries. Also ... Trackball, vertical mice, trackpads, and even some mice shaped like larger pens are made. Consider how you use your mouse and, if you have pain, consider one of these options as well. There will be a learning curve ... and, yes, these do cost more. It could well be worth the savings on pain relievers.



Another alternative is the touch pad. There is a learning curve associated with this, but some find it more comfortable. Capacitive touch and other peculiarities of smartphones / tablets that make finger temperature or humidity a factor do not impact desktop or laptop touchpads. Worth a mention if you are looking for a new mouse – cordless is nice, but it is possible to have increased latency (time lag) between mouse movement and the time the cursor moves on the screen.

- Spending a bit more when buying a Bluetooth mouse can increase quality / decrease latency.
- Making sure your mouse battery is not depleted also helps performance. “Wired” mice take power from the host machine, so this is only a consideration with wireless mice. Most mice are now optical, meaning they use light rather than a ball for movement. They do not require a mouse pad (the old “ball” mice often did to ensure consistent surface) but can react differently when placed on more reflective surfaces. If your cursor seems to be “jumpy”, try putting a clean sheet of paper under it to mute some of the reflection.

Mouse choice, as with all input devices (keyboards, microphones, etc.) is very personalized. Don’t believe it when someone says, “anything works”. It’s your comfort that counts.

Next quarter we will discuss: Cords, Voice, Sound, and other hazards.

## **Computer History**

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Recently I was in Washington D.C. While there, I visited the Smithsonian Museum of American History. They had a special exhibit on computer history. There was a sign that read, “Unless you know the road you’ve come down, you cannot know where you are going.” I wonder where computer and other technologies are going? Here is some information from the exhibit.

Both corporate researchers and self-trained hobbyists played crucial roles in the invention of the personal computer. Robert Noyce, Gordon Moore and Andy Grove used their doctoral training in physics and chemistry to found Intel, a leading manufacturer of integrated circuits. Alan Kay and others at Xerox advanced computer graphics, networking, and printing. The Homebrew Computer Club in Menlo Park, California, gave

hobbyists a place to share knowledge. Homebrew members Steve Jobs and Steve Wozniak founded Apple Computer after demonstrating their Apple I kit at the club.

Early computers were big and expensive and required technically trained specialists to run them. Not surprisingly, only universities, big businesses, and government agencies had access to these behemoths. In the 1970s and '80s, Silicon Valley inventors changed the face of computing with the first "personal computers" small enough to fit on a desk. They created revolutionary features that we take for granted today — a hand-held input device called a mouse, a graphical user interface with overlapping "windows," and clickable pictures called "icons" — and made computers less expensive and more "user-friendly."

Douglas Engelbart and his colleagues at the Stanford Research Institute were pioneers in the field of "human - computer interaction." In 1964, they built a hand-held pointing device to manipulate images and text on a monitor's screen. The prototype was a simple wooden box with two perpendicular metal wheels, a selection button, and a wire connection to the processor. Engelbart's "mouse" was subsequently refined by researchers at Xerox PARC and made popular with the release of the Apple Macintosh in 1984. Engelbart later noted, "It just looked like a mouse with a tail, and we called it that."

### **Windows 10 Taskbar Options**

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The taskbar is a very important part of the Windows 10 operating system. Arguably, its primary purpose is to make computing life for you, the user, easier. Like a lot of things in Windows 10, most of the features in the taskbar can be implemented or modified in more than one way. Some, directly on the taskbar itself. For instance, the order in which shortcut icons appear on the left end of the taskbar can be rearranged by simply moving the cursor to that icon, left click and hold with the mouse, then drag the icon left or right to the position that you want it to be in.

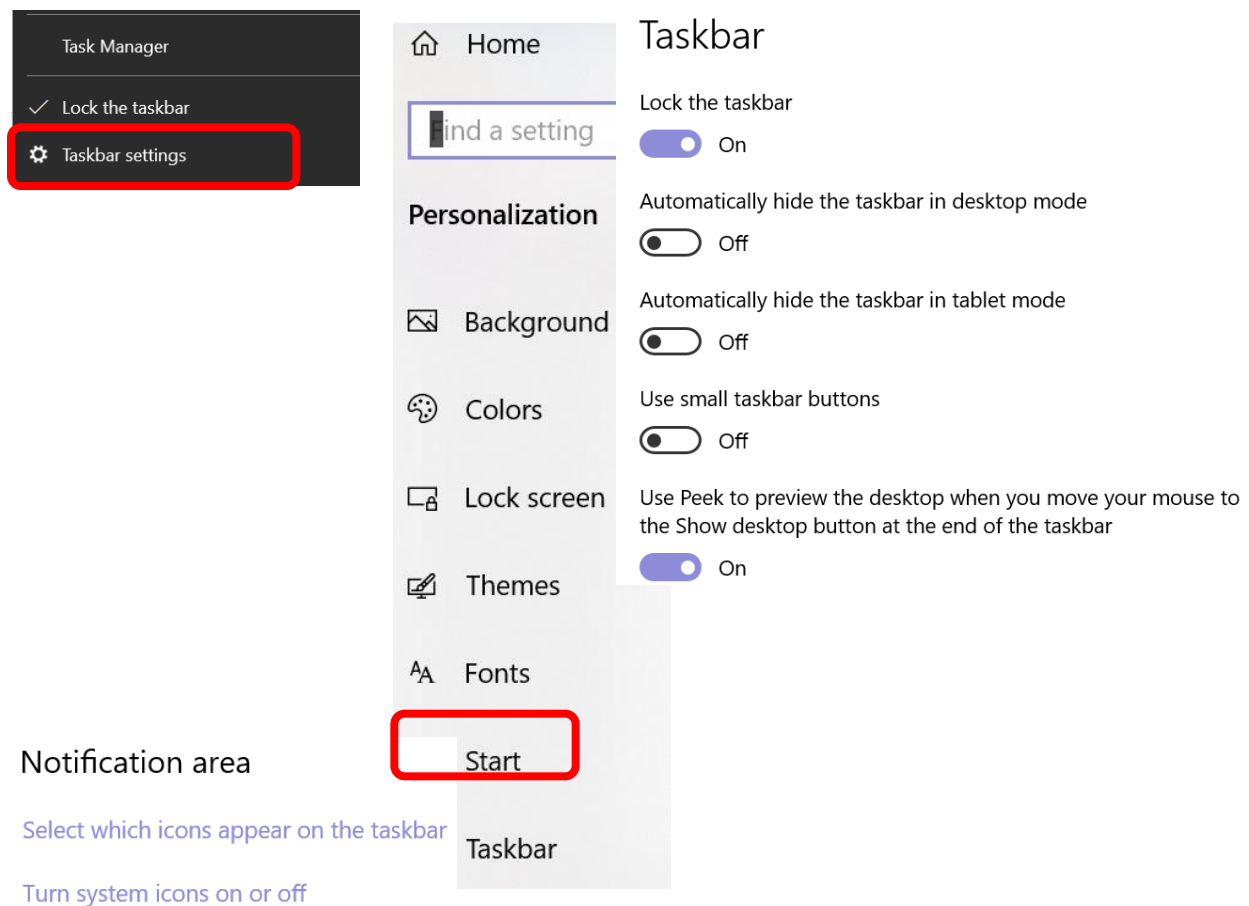
The taskbar is a great location for any shortcuts that you use often. One way to get that shortcut onto the taskbar is to right-click on any shortcut icon on the desktop and choose "pin to taskbar" from the list of options in the window that pops up. Or, click on start, pick the program that you want from the list that you can scroll through, right-click on that program, in the window that pops up, left click on "more" and on the sub-window that pops up, click on Pin to taskbar. If a program shortcut icon has already been pinned to the taskbar, you can "unpin it" in the same procedures.

One feature that some people love and others hate, is auto hide the taskbar. When the taskbar is at the default bottom of the screen location, and auto hide is turned off, the taskbar is always visible and covers up at least one line of information at the bottom of the screen. When auto hide is turned on, the taskbar is hidden until you move the

mouse cursor to the bottom edge of the screen. At that point the taskbar rises to visibility. I happen to prefer that setting.

One taskbar function that few people seem to be aware of, assuming "Lock the Taskbar" is not checked, is that by simply moving the mouse cursor to the top edge of the taskbar a double headed arrow appears. With the double headed arrow visible, a left click and hold will allow you to move your arrow up and increase the number of lines that the taskbar covers, to half the screen if you want, or vice versa. Increasing the height of the taskbar allows you to have more of the larger icons that are easier to read.

The taskbar incorporates a large number of functions that could make your computing life easier if you studied up a bit on all the things that it can do. When you right-click on the taskbar, the first item on the window that pops up, at the bottom, is taskbar settings. It is recommended that you click on that and read all of the possible variations that the settings screen allows you to make. In particular, the section on system icons.





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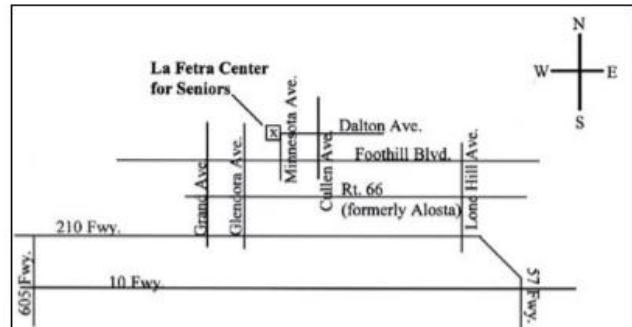
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