

MuseScore: Music Composition Freeware

By John Krout

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MuseScore is a freeware project hosted on SourceForge. It is available for Windows 7 and up, MacOS 10.7 and up, and Linux and BSD. The URL is <https://musescore.org/en>.

MuseScore uses standard music notation, i.e., treble clef, bass clef, time signature, key signature, quarter notes and so forth. I had a thorough and long-lasting education in standard music notation in grades 2 through 12, so the notation is still familiar to me, decades later.

When I first downloaded and installed MuseScore in 2012, I had one particular use in mind. I had a brand new smart phone, an iPhone 5, and I wanted to compose a ringtone, specifically the fight song of Washington-Lee High School in Arlington, my alma mater. The song has been in use for a very long time (W-L started playing football against George Washington High School in Alexandria in the late 1920s). I performed it for two years in the W-L marching band back in 1969 and 1970, and I have remembered the melody ever since.

Broadly, MuseScore works somewhat like a word processor: you can write music, save and retrieve music files, do edits, cut & paste, copy & paste. You can print your sheet music.

Additionally, MuseScore will play the music, and it lets you assign voices to notes. It comes with a considerable assortment of instrument and vocal sound files to use as voices. MuseScore can play the resulting arrangement through your computer speakers. It can also record the arrangement to an MP3 file, which is precisely the file required for Android ringtones and can record to the M4A format used by iPhones; you have to change the file extension to M4R for an iPhone to recognize the file as a ringtone file.

I composed the W-L fight song from my memory. It involved about 8 measures. I created a bit of harmony, and assigned a flute voice, a trumpet voice, and a tuba voice. Note that, for a ringtone, the low frequencies are weak due to the tiny size of speakers in the smart phone. It sounded great on the computer speakers, but the tuba part sounds very weak when the phone rings.

I stay in touch with a dozen or so of my 665 high school classmates via phone. I assigned the ringtone to their incoming calls.

In 2017, I found another interesting use for MuseScore.

No course credit or academic grades are involved, just three evening rehearsals and a performance in front of a big audience, 500+, mostly parents and siblings of current choir students and some families of the Community Choir adults. The school's choir director chooses three songs for the Community Choir to perform. At the first rehearsal, he hands out the sheet music for the volunteer choir to take home.

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The screenshot displays the MuseScore interface with the title "Washington-Lee High School Fight Song" in a central box. The score is arranged in two systems. The first system includes staves for C Trumpet, Flute, and C Tuba. The second system includes staves for C Tpt., Fl., and C Tu. The music is written in 4/4 time and features a mix of eighth and sixteenth notes. A left-hand palette lists various musical symbols and tools such as Grace Notes, Drums, Clefs, Key Signatures, Time Signatures, Barlines, Lines, Arpeggio & Glissando, Breath & Pauses, Brackets, Articulations & Ornaments, Accidentals, Dynamics, Fingering, Note Heads, Tremolo, Repeats, Breaks & Spacer, Beam Properties, and Symbols.

In December 2017, I volunteered for Community Choir, for several reasons. First, I missed performing music. Second, after all my experiences in school playing piano, clarinet, oboe and guitar, I had not tried singing since elementary school; over the decades I realized that singing was the one skill I missed the most. Finally, my daughter was about to relocate to Georgia with her husband, so it was my last chance to surprise her.

When the director handed out the sheet music, I decided I would do what I had done for most of my K-12 years: take it home and practice. But, unlike with musical instruments, I had no idea how to hit the correct pitch for a note on the page.

This is where MuseScore came in handy.

I transcribed my parts in the sheet music into MuseScore. The first two songs were about 92 measures each, with a lot of repetition that could be realized fairly rapidly through copy & paste. That transcription process alone made me very familiar with the structure of each song. Then I assigned a MuseScore male voice to the notes in each song. I did not include the lyrics. I just wanted to hear the notes so I could hit them accurately for practice.

MuseScore played each song, and I sang along by reading the lyrics in the original sheet music.

It worked. Practice made me a lot more confident that I could perform the material.

The school is a combined program including grades 6 through 12, and I attended all the concerts while my daughter was a student there during 2004-2011. For most of that time, I led a volunteer team of parents that shot photos, video and recorded audio of the concerts, and made DVDs and audio CDs of the concerts for music department fundraisers. After my daughter graduated, I continued to attend the concerts simply because, with free admission, they are the best entertainment value in town.

The final song was the Hallelujah Chorus from Handel's Messiah. It is both more complicated and more familiar. Roughly 116 measures, I have heard it performed every December at the school since 2004. It too is crowdsourced but on a grander scale. The choir director not only includes the Community Choir and all high school choir students, but also invites all choir alumni/ae to come up and sing, so the group is enormous, literally overflowing the stage.

My first public music performance since 1971 happened on December 19, 2017. It was fun.

This type of practice at home has its limits. I did not transcribe the other voice parts, just the one I was trying to learn. That is important. One of the songs was a round (AKA rondo), where the entrance timing is different for soprano, alto, tenor and bass. Hearing all the parts is useful for practicing the precise rondo entrance points. Likewise, I did not transcribe the accompaniment. For two of the three songs, that was a piano part.

All the parts and the accompaniment were on the sheet music I was given. I was not sure I had time to transcribe all the parts into MuseScore. Maybe next year. [Please notify author when reprinted.]

About the author: John Krout is a former president of WAC, one of the predecessor organizations of PATACS. John lives across the street from a house once occupied by a military family including a young Jim Morrison, who later became the singer for the Doors. One of John's favorite photo subjects is performing musicians. Among those musicians is Jorma Kakounen of Jefferson Airplane and Hot Tuna, who once visited John at home. Jorma graduated from

Wilson High School in DC; his dad was a career diplomat.

Stepping Up Your Internet Privacy and Security

Meeting review by Mike Hancock, Newsletter Committee, Golden Gate Computer Society
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Noah Swartz, a technologist with the nonprofit Electronic Frontier Foundation (EFF.org), explained that EFF is involved in Impact Litigation and projects like HTTPS Everywhere, Let's Encrypt, Panopticlick, and Privacy Badger.

Privacy Badger 1.0, created by EFF, is a free open-source (GPLv3) web browser extension for Google Chrome and Mozilla Firefox, for both PC and Mac. Its purpose is to block advertisements and third-party tracking cookies that do not respect the new Do Not Track (DNT) policy setting in a user's web browser. Although some of the code for Privacy Badger is based on Adblock Plus, it only blocks those ads that come with trackers embedded.

As you browse the Web, Privacy Badger (PB) looks at any third-party trackers that are loaded on a given site and determines whether they appear to be tracking you (e.g. by setting cookies that could be used for tracking or fingerprinting your browser).

If the same third-party domain appears to be tracking you on three or more different websites, PB will conclude that the third-party domain is a tracker and block future connections to it. Tracking is most common with DoubleClick (Google), Axicom, AddThis, Facebook, Spokeo, and ScorecardResearch.

For certain websites, if PB were to block an embedded domain entirely, it would break the site's core functionality, in which case it blocks the domain from setting or receiving any cookies

or 'referrer' headers, but it allows the embedded content to load. Some advertisers, such as Google Maps and YouTube, cannot be blocked, but PB can adjust what is blocked, and social widgets can be replaced.

Advertising companies that engage in nonprofit consensual tracking of your Web browsing habits are widespread. They propose an opt-out that is, in reality, more of a "pretend not to track." The new DNT policy flag, enabled by EFF, Disconnect, Medium, Mixpanel, Adblock, and DuckDuckGo, is a signal that the user wants to opt-out of online tracking and opt-in to DNT.

Ad blockers only block ads, not tracking, and are not always trustworthy. Incognito mode browsing is vulnerable and only untraceable between sessions. Targeted ads have no obligation to anonymity and you have no control over them; data can be stolen or sold, and these ads can be misused.

DoubleClick is a subsidiary of Google that develops and provides Internet ad serving services. Its clients include agencies, marketers, and publishers. DoubleClick is often linked with the controversy over spyware because browser HTTPS cookies are set to track users as they travel from website to website and record which commercial advertisements they view and select while browsing.

DoubleClick has been criticized for misleading users by offering an opt-out option that is insufficiently effective.

The National Security Agency (NSA) uses Google cookies to pinpoint targets for hacking, and piggy-backs on third-party cookies. The Diffie-Hellmann Key Exchange Protocol establishes a shared cryptographic "key" between two computers that makes it difficult for a third party, such as NSA, to spy on a conversation; however, it has its weaknesses.

The Digital Millennium Copyright Act (DMCA) is a U.S. copyright law that criminalizes production and dissemination of technology, devices, or services intended to circumvent measures (commonly known as digital rights management or DRM) that control access to copyrighted works. This act, unfortunately, is sometimes "interpreted" to sue innocent acts, such as the DMCA vs. Baby case.

Panopticlick is a free online tool by EFF that tests your browser with one click to see how unique it is based on the information it will share with sites it visits, and therefore how easily it can be identified by the owners of the websites you visit online.

Noah recommends we use the latest versions of our operating systems and recommended Tor as a (free) browser that enables anonymous communication. If you use Tor, you will not also need Privacy Badger. Always enter data on an encrypted website.

EFF relies on subscriptions and donations. For more information and to join the Electronic Frontier Foundation, go to EFF.org.

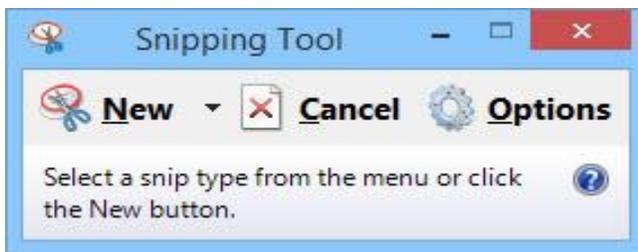
Meet an Old Friend: Snipping Tool

By Nancy DeMarte, 1st Vice President, Sarasota Technology User Group, FL
December 2015 issue, Sarasota Technology Monitor www.thestug.org
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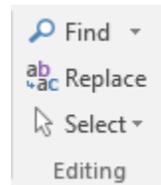
I use a tool almost daily that has been part of Windows through many versions: Snipping Tool. I am surprised so many people don't even know it exists. Introduced in Windows Vista, it can be found in the Accessories folder in All Programs in Vista and Win 7 and in the Accessories apps list in Windows 8.1. An updated version comes with Windows 10.

What does it do? It is a screen capture tool. I use it to make digital copies of small or large sections of documents or spreadsheets or photos and use them in my articles or tutorials. I capture pictures, objects or text from web pages and copy them into Word so I can save or print. I have used the Snipping Tool more than once to copy an error message from my screen and email it to a tech support person. I have also snipped charts from Excel and added them to PowerPoint slides. There isn't any limit to what you can capture from your screen with this tool.



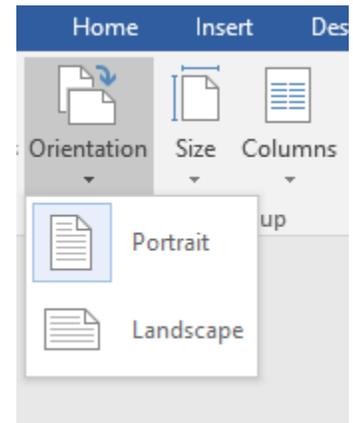
Besides being free, this little tool is easy to use. I keep it pinned to my taskbar for convenience. When I want to capture something on the screen, I click the Snipping Tool scissors icon, which opens its main window and shows three commands. Clicking the arrow next to **New** gives me a choice of four types of snips: Free-form, Rectangular, Window, or Full screen. Free-form lets me use a stylus or my finger on a touch screen to draw around an object or section of the screen. The Rectangular option, by far the one I use the most, lets me draw a rectangle around an area of any size. The Window option makes a perfect clip of an entire window, and Full screen captures the whole screen. If the Snipping Tool window opens on top of an area I want to capture, I just drag the tool window to a different spot before I snip.

Let's say I want to capture the Editing group on the Home tab of the Word ribbon. I make sure 'Rectangle snip' is selected. When I click New, the whole screen turns grayish except for the Snipping Tool window. I click a corner of the Editing group and drag around the area I want. When I let go, the Snipping Tool clipboard



opens, showing that my snip has been successful. Now I can choose whether to save the snip, cancel the capture if it is not what I wanted, or copy it directly into a new location without saving. I usually save the snip so I can use it later. I click the Save icon, which opens the Snips folder in my Pictures folder, name the file, choose a file extension from the four available (HTML, PNG, GIF, or JPEG), and click Save.

Occasionally, I want to capture a view that is not visible on the main screen, such as a drop down menu that requires an extra click to open. Snipping Tool has a way to handle this situation. I open the Snipping Tool and press the Esc (escape) key on the keyboard.



Then I open the menu, which minimizes the Snipping Tool. Next I hold down the CTRL (control) key and press the PrtScrn (print screen) key, which leaves the menu open and restores the Snipping Tool so I can proceed to snip the area containing the menu, as shown.

A few features are only visible when a snip has been captured and is on the clipboard. In this view, I have access to a pen with choices of ink color, a highlighter, and an eraser, all of which can be used to add a caption or notes to the snip. Another option is to send a snip directly from the clipboard to an email recipient, either within an email or as an attachment.

There are other free screen capture apps, such as Jing by Tech Smith (for Windows) or Skitch by Evernote (for Windows or Mac). There are also full-featured capture tools for a price, such as SnagIt, also by Tech Smith. The paid tools have more features than the free ones, which often results in a longer learning curve. Snipping Tool is free, simple, and does the job. Plus, if you have

a Windows computer, it's already installed and ready to use.

Achieving your Potential as a Photographer

By Harold Davis, Focal Press

Review by Mark Mattson, Editor, Computer Users of Erie, PA

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Photography has been around for over 175 years now. Like most art forms, it had its fits and starts over the years, with many different techniques coming and going in those years. Each phase evolved into another, many enjoying a long popularity, while others came and went in a shorter period of time. As the equipment evolved and processes became more mature as time went on, it became much easier for many people to enjoy creating photographs, not only for their enjoyment, but for others as well.

With the art form maturing, it was inevitable that, like other art forms, masters would emerge, creating images that would define photography as a true art. Early Masters such as Ansel Adams and Henri Cartier-Bresson would give us gifts that have endured over the years, all the way through to contemporary artists such as Annie Leibovitz, Sam Abell and Steve McCurry who, along with their contemporaries, are creating new iconic images all the time.

Even though it appears to be a simple medium to work in, photography is actually quite complex. It can take many years of hard work to develop one's style of work, and to excel in that style. True, with the advent of digital imaging, it is now much easier than before, but it still requires a lot of work to break through as one of the masters of the art.

Photographer and author Harold Davis has had much success in his career as a photographer. Besides his numerous books on how to create images that stand out from the crowd, he has also conducted many workshops and photo tours to

teach the craft and art of photography to many aspiring people.

In Harold's latest book, *Achieving Your Potential as a Photographer*, he takes his readers on a journey of exploration on how to define their own unique vision and style of photography.

This is not really a 'how-to' book, where the author shows you step by step how to create images similar to his; rather, it's a journey taken together to help you uncover your inner creative style, and express it through the images you capture, and how you present them to the world. In addition, this is something of a unique volume, in that it not only has the usual text and photos pages as a normal book does, it also contains a pull-out workbook at the end of it.



The book is a modest 206 pages in length, not counting the 48 page workbook bound into the back of the volume. You can use the workbook either as a pull-out or, as I am intending to do, leave it in the book and work with it that way. I won't lose any of the pages, and I will have my journey along the path Harold sends me down at hand, for future review and consultation.

As with his other books, Harold includes a great array of his photos to illustrate concepts, or just to give you something to think about, to make you want to achieve similar results in your own work.

There are six main divisions to the text: Start Here, In the Beginning, Unleash your Imagination, Becoming a more Creative Photographer, Technique Matters, From Photo to World, and the Workbook. There are also pages devoted to Resources, a Glossary and an Index. While the main section of the volume is presented in a formal layout design and style, the workbook has been designed with a whimsical touch behind it, to make it a fun and interesting portion to work through, rather than a stiff, stuffy set of assignments from your least-favorite school teacher.

The workbook contains 46 individual tasks to work through, to help you grow as a photographer. When you start to work through the exercises, be sure to note Harold's words about how to use the workbook: It's meant to be used in conjunction with the main text, to help you move through the exercises. You can either read the book first, then do the exercises, or work through the exercises and refer to the book pages as needed to progress onward. Either way works, just pick the one that works best for you. But above all, HAVE FUN!

You can examine a PDF file of the workbook from the Focal Press web page for the book. Go [here](https://www.routledge.com/products/9781138826366): <https://www.routledge.com/products/9781138826366> click the eResources tab, and then download the workbook. This will give you a look at what is in store for you when it comes to helping improve your photography. You'll need the rest of the book to fully understand and complete the tasks presented, so you'll then need to click the 'Buy Now' button. But Harold was gracious in allowing a peek at these pages, to help you decide if this volume fits your needs. I think you'll find it does, in many ways.

In reading and reviewing Harold's books over the years, you find that he likes to include some gems in his volumes, parts of the book that make you sit back and think 'Wow, how simple that is... and why didn't it occur to me before'?

Sometimes it's just a quote, or a phrase in a paragraph, or sometimes an entire section of the text, but he manages to work something in that makes one stop and realize there's more than one way to do things.

In the case of this book, the gem that hit me is found on page 174, and is titled 'Photography is Play'.

Three words. Photography is play. Not an earth-shaking phrase or thought, until you sit and think about it for a while. Yes, photography can be difficult, and a hard art to work in. It can be dangerous as well, depending on your subject material and where you decide to travel to shoot your images. But that doesn't mean it ALL has to be that way. If it is, if you find yourself struggling with every shoot, every image, perhaps you need to stop and rethink how you're going about your craft.

Perhaps you need to go and have some fun. To play while you photograph.

When I was younger, I was photographer for the school yearbooks for quite a number of years. I'd grab the camera and some rolls of film in the morning, and roam the halls all day long, looking for my 'victims'. Most of the time I'd set the focus and exposure and leave it, and just shoot from the hip (we had a Yashica-G TLR 120 roll film camera). Sure, I'd get the random flubbed image, but most of the time I caught a lot of good ones, ones that were popular with everyone when they were published.

THAT was fun times. Just grabbing the camera and going out and getting what I could. I had fun, and was sad when it had to end (graduation and all that, you know). But just sitting here thinking about it as I write makes me smile, wishing for those days again.

It also makes me realize I don't have that much fun when shooting now.

Exercises 16 and 42 in the workbook give you some ideas to work with, to bring the fun and play back into your photography. You can start with them, adding others of your own as you progress along the path Harold has set out for you.

Yes, the technical aspects of photography are a big part of making good images. But it's also important to have the fun part - the human part - as part of them as well. It can only help to make your images come alive, not only for you, but for your viewers as well.

Don't let the technology get in the way of creating good images. Make it work FOR you, as the tools they are. But also let the play come through as well...and you'll find yourself becoming better in your art.

Pricing and Availability

Achieving Your Potential as a Photographer is available direct from the publisher, Focal Press. Click on the image of the book cover to be taken directly to their web page. The list price is \$34.95 plus shipping. If your group is a member of the Focal Press User Group program, you are eligible for a discount on the purchase price.

It can also be found online at Amazon.com, where it lists for \$25.93 plus shipping. You can find it at other booksellers as well, such as Barnes & Noble.com; Amazon also offers it in a Kindle version for slightly less.

Photography can be a very satisfying and rewarding career...or hobby. But sometimes you find you need some help and inspiration to continue your journey along the path you choose to follow. What Harold Davis has done with this book is to guide you down that path, in directions only you can choose to go... and to be there with you as you explore and grow.

Back To Basics:

Getting Devices to Work Together

By Jim Cerny, Columnist, Sarasota TUG, FL

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Every year I hear that the wonders of technology are going to make our lives easier and easier. Do they mean less confusing? I don't think so! We have smart phones, tablets, touchscreens, laptops, desktops, printers, high-tech television, all kinds of internet services, cable boxes, upgrades, new software, and computers in our cars almost ready to take the wheel. The problem is getting all these devices, all made by many different manufacturers, to work together! They said it would be easy to get phone calls in my car, get free internet TV programs on my TV, get my email on my phone and tablet, and watch any video on any device. (Well, maybe watching a football game on my car computer would not be such a good idea while I am driving). Thus we can spend many hours trying to get one device to communicate with another.



Maybe someday you can just turn on your new device for the first time and it will somehow know all your other devices and quickly set them up to work together. But will I see it in my lifetime? I don't think so. Well, what do we do now? What steps can you take to make things easier? I hope the following tips may help.

1. Read the instructions for your device. If it did not come with an instruction book, look it up on the internet.
2. Find all the buttons, indicator lights, and all other hardware things you can press, click, switch, or plug things into. This is not as easy as it seems since manufacturers hide buttons and make them the same color as everything else. (Why do they do that? Are they ashamed that they have an "on" button??)

3. Follow the instructions for setting up your device. If you have to enter some kind of ID (login, or account number) and a password, WRITE IT DOWN and don't lose it. It is always immensely more difficult to help someone who has lost their ID or password.
4. Use the internet to find out more and ask/enter very specific questions. Use Google or YouTube. Enter something like: "How do I read my Gmail on my iPhone?", or: "How do I get my HP Office Jet Pro 8600 to work with my Toshiba Laptop with Windows 7?" Be as specific as you can with the make, software version, model number, etc.
5. Try to get a book at the library to help you. Ask the librarian for help.
6. Ask the manufacturer or the place where you purchased your device. Call them first and ask if they can help (some may never want to talk to you again after they have your money). Take the approach that you spent a good deal of money to buy the device and if you cannot use it as it was advertised you will return it for a refund.
7. Find someone who has the same device as you and ask them how they use it.
8. If all the above fails, you may have to take your device(s) in to a professional – a computer help/repair place or have one of their techs come to your location. Try to explain the problem on the phone first and ask how much such a fix would cost. If they do come to your home, make sure you TEST ALL your devices involved before you let them leave. They may fix one problem on one device, but that does not mean it will now work with other devices.

If you experience some success, go celebrate with a dinner out. Then, hopefully, you will remember the nice dinner instead of the frustration you experienced getting things to work. Well, technology advances on and, so long as there is money to be made by coming out with new

devices or upgrades, you can be sure such progress will continue. Maybe some things are passing us by, but let's try to keep moving ahead anyway even if we are a bit slower than others.

Pay with your phone – Maybe soon, using Android Pay or Apple Pay

By Phil Sorrentino, Contributing Writer, The Computer Club, Florida
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Android Pay and Apple Pay are payment services developed and supported by Google and Apple respectively. They both support in-app and tap-to-pay purchases on their respective mobile devices (phones, tablets, watches). You can use your phone for so many things already, why not add purchasing to the growing list? Your phone is usually in your hands anyway, why bother trying to get out your credit or debit card from your wallet or handbag, just use the phone to authorize the purchase. It's really very easy and recent statistics indicate that either system can be used in over 700,000 stores in the US.

In-app purchases are purchases of extra content or subscriptions that you can buy while in an App, using your mobile device or computer. (Not all apps offer in-app purchases, but if they do, you will see "Offers In-App Purchases" or "In-App Purchases" on the app page possibly near the "price", "buy" or "get" button.) In-App purchases may be consumable, like "game currency" or "game hints", or non-consumable like "an Upgrade to a Pro Edition", or an offer to "Remove Ads". An In-App purchase may allow you to purchase a subscription to a newspaper, a magazine, a game, or even a service like Netflix.

Tap-to-Pay purchases are purchases you make at a store, at the Point-of-Sales (POS) terminal, using just your mobile device. (The POS terminal must be a contactless capable terminal.) Your

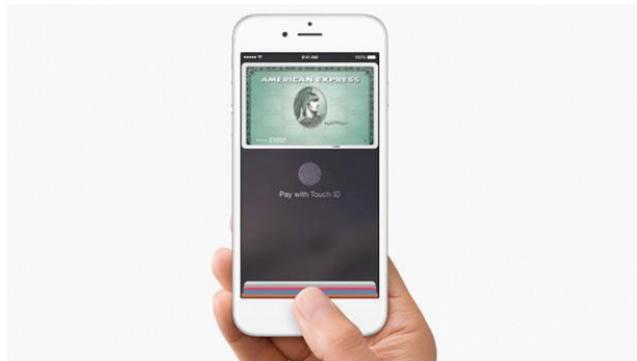
mobile device takes the place of a credit or debit card or cash. Tap-to-Pay purchases are made by bringing the mobile device near the point-of-sale terminal and authorizing and starting the purchase by tapping the terminal or possibly pressing a button on the device screen. In order to accomplish this, the device must have a Near Field Communications (NFC) capability built into the device. The Apple iPhone6, iPhone6Plus, iPhone6S, iPhone6SPlus, or an iPhoneSE all have the capability built in. Android devices with version 4.4 Kit-Kat or higher are capable if they also have NFC circuitry in the device (check in Settings in your phone or check the user manual for your particular device). NFC is a set of short range wireless technologies and communications protocols that enable electronic devices to establish communication when brought to within 4 cm (1.6 in) of each other. (Communications protocols are a set of rules that allows two or more participants on a communications network to exchange information.)

So, believe it or not, in your smartphone there may be four different communications capabilities, each of which also includes an antenna. That little phone is really packed with electronics. Just for review, the communications capabilities are: NFC for very close communications, almost touching the phone, up to 1.6 in; Bluetooth, for a personal area network up to 10 meters around the device; Wi-Fi, a local area network up to maybe 100 meters; and of course, 3G or 4G Cell Phone Tower communications, capable of distances of up to 45 miles. (In populated areas, a cell tower may never be more than a few miles away, but in less populated areas the tower may be beyond the phone's capability. Note that a typical cell phone has enough power to reach a cell tower up to 45 miles away, but depending on the technology of the network, the maximum distance may be as low as 22 miles, due to the timing requirements of the network.)

But back to paying with the phone. In order to make a purchase, you need the appropriate App,

Android Pay for the Android phone and Apple Pay for the Apple phone (or Samsung Pay for certain Samsung phones). Once you have downloaded the App, you can add a credit or debit card to the App. You can use the camera to capture your card information or you can enter it manually. This is the card that will eventually be charged for the purchase. You can change the card to be used at any time. Although most cards from almost all U.S. banks can be used, some cards may not.

As with many new technologies, one of the biggest concerns with something like Apple Pay or Android Pay is security. And so, one of the reasons you may want to use your phone for a purchase is because of the improved security over a similar transaction made by a credit or debit card. The purchasing process is a little different in that your card information is never used during the transaction. Instead, a virtual account number, or one-time transaction code is created and used for the transaction, in place of your true card information. The transaction code can only be used once, and may even expire after a set period of time. Additionally, fingerprint ID authentication is used on devices where a fingerprint reader is available. On devices without a fingerprint reader the purchase is authorized with a password (great, another password to remember). So, if this system provides better security because of the way it works and if it is more convenient than using a credit or debit card, this may be the way many future purchases will be made.



<http://www.trustedreviews.com/news/android-pay-uk-launch-banks-mobile-payment-google>

By the way, Android Pay is different from Google Wallet. Wallet is not for purchasing, it is a peer-to-peer method of transferring money to another person. As the advertisement for Google Wallet states “Google Wallet is a fast, free way to send and request money. You can send money to someone using just their email address or phone number – they don’t need to have the Wallet app. All you need is a Google Account and a debit card to get started.” And let’s not forget that Apple has recently announced a Peer-to-Peer mobile payment service that will be in the new iOS 11 Operating System. These money transfer systems may just be an indication of a world that has become more dependent on mobile devices and less reliant on cash for transactions.

What do you do with your Computer – Besides shopping?

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A long time ago, circa 1980, when personal computers first made their appearance, there was very little that us ordinary citizens could do with them. But as they found their way into the hands of some very smart people, who were also practiced in the art of programming, useful programs, or what we now call Apps, started to appear. You may have a slightly different view, but to my recollection, replacing the typewriter was the first “killer app” that appeared. Word processing took advantage of the computers capabilities and allowed many people to create works of literature quickly, accurately and by themselves. Over time, word processing on a computer completely replaced the typewriter and the many thousands of people it took to keep them operating; the typing pool disappeared. Many people were caught off guard. Because many people always had a person to create their inter-office memos, they never had to learn to use

a keyboard. (Fortunately, I was forced to take a keyboarding course in the 9th grade. Its value became quite evident later when I had to use a keypunch machine to create lines of source code for a main-frame computer.) So, now with word processing available, most people could create their own inter-office memos and eventually turn those memos into emails (initially only within the company). Email was one of the next “killer apps” to appear. These early applications started before and without the benefit of the internet.

But before we get to the internet, there were many other “killer apps” that became part of computing. Here’s a brief walk down software memory lane. Spreadsheet software started as VisiCalc and evolved thru SuperCalc, Lotus 1-2-3, MultiPlan, and finally to the current Excel. Graphics software, software that allows one to manipulate images on the computer, came on the scene early and now is represented by Adobe Photoshop, CorelDRAW, Microsoft Paint, and probably some others that I am not familiar with. Presentation software, that provides a sequence of slides for presentation before a large group, became a popular addition to other software used in an office setting. Presentation software is currently dominated by Microsoft’s PowerPoint. Photo Editing software became popular after picture file types, like .jpg, .png, and .bmp, were invented, around the mid-nineties. Music player software became available after the invention of music file types, like .mp3, again, in the mid to late nineties. Video player software also arrived in the nineties, with the invention of video file types like mpeg-1, mpeg-2, and mpeg-4. Boy, the nineties were a busy time for inventing useful computer file types. Database software was also another “killer app” that came on the scene in the late 1980s and early 1990s; remember dBase II, or FoxPro, or Paradox.

Communications software and the internet changed everything. They allowed computers to communicate with other computers which allowed people to take advantage of computers that were in remote locations. Networking

software made computer to computer communications possible. Networking software, which was initially an addition to the Operating System, eventually became, and is currently, an integral part of the Operating System. In the very early nineties, the World Wide Web appeared and with it, browsers. Browsers are another “killer app” and are what give us the ability to visit any website on the internet. You may remember some of the first browsers; MidasWWW, Lynx, NCSA Mosaic, Internet Explorer, Netscape Navigator, and Opera. Safari, Firefox, and Chrome came along a little later. It’s through using the browser that you can get to all those wonderful retail sites for shopping on the internet.

So, early on, before the internet, the answer to the question of what you will do with a computer was simpler and was probably one of the following:

- Word processing, Graphics manipulation, Database development and uses, Communications. The uses were pretty limited. But today, there is a much wider choice of activities to answer the question. The computer is a very versatile machine and today you could be using your computer in many ways, to accomplish many different things, such as:
- 1) Keeping in touch with your friends and family using email or social networking apps.
 - 2) Watching movies or videos, (that you have purchased, borrowed, or created), on your living room big screen TV.
 - 3) Watching movies that you are streaming from the internet (Netflix, Hulu, YouTube, etc.) on your living room big screen TV.
 - 4) Listening to music, from your local music database of tunes that you have purchased or “ripped” from CDs or converted from older tapes or vinyl.
 - 5) Listening to music that you are streaming from a cloud music source (server) like iTunes, Pandora, Google Play Music or Spotify.
 - 6) Organizing your picture database so you can locate a particular event or specific picture.
 - 7) Showing certain photos, from your picture collection, to your family and friends, on your living room big screen TV.

- 8) Fixing the exposure on some of the pictures you recently took with your smartphone.
 - 9) Creating “Movies” of your latest vacation from the pictures and video clips you took with your camera or smartphone, while on vacation.
 - 10) Managing your home family finances using a few basic financial spreadsheets, or a financial software App like Quicken or MSN Money.
 - 11) Scanning old paper pictures to create a pictorial family history.
 - 12) Scanning documents to create a database of important documents for your estate or your children.
 - 13) Writing your own personal history to pass down to your children or other family members.
 - 14) Checking your calendar for today’s activities or to see if you can make an appointment for 2 o’clock, in three weeks.
 - 15) Reading or keeping up with the current news.
 - 16) Checking on your financial accounts.
 - 17) Checking on the stock market, or a particular stock, or trading stock in your brokerage account.
 - 18) Sharing 200 pictures of the wedding you recently attended, with other wedding attendees using your OneDrive cloud account.
 - 19) Researching “hip injury” using Google because of a twinge you noticed when you woke up this morning.
 - 20) Checking “The Computer Club’s” website to see when the next “File Explorer” class is scheduled.
 - 21) Writing an article for the next month’s newsletter.
 - 22) Creating a PowerPoint presentation to give at the next club meeting.
 - 23) Backing up your computer so your very valuable data will never be lost.
 - 24) Playing the latest shoot-em-up, or “brain training” game.
- And finally, 25) Shopping on the internet.

One reason for knowing what you do with your computer is to help you decide on what computer to buy, or more importantly, how much computer you may want to buy, the next time you purchase a computer. You don’t really need the fastest computer around if all you are going to do is shop

on the internet, a Chromebook might even be appropriate.

Back to Basics

The HDMI Cable and Connectors

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As technology changes, hopefully for the better, more and more devices are available to us. For most of us who use technology for personal and home use, we would like to connect some devices to our TVs to enjoy the big screen video and great sound experience. The latest connection cable type that does this for us is HDMI which stands for "High Definition Media Interface". The cable connectors (the standard size and a mini size) are shown in the photo. They have a shape to them that allows them to be inserted only one way, so do not force it into the port, try turning it over (180 degrees) and try again.

The purpose of HDMI is to replace different kinds of connectors and cables with one type that, hopefully, can handle all your device connections. Do you remember the old days when there were separate audio/stereo and video cables? Today almost all of the newer devices (laptops, TV's, DVD players, etc.) will come with at least one HDMI connector port. The older style connectors may also be present, but if possible, HDMI should be your first choice to make those connections.

Your TV remote control will have a button labeled "input", and when you press this button different input options (that is, what is coming INTO your TV) will be displayed and allow you to select which one you want. One option will be "cable" which means your TV will show your cable programs – the cable you pay for each month. But other choices will include one or more HDMI inputs, usually labeled HDMI-1, HDMI-2, etc. If you have more than one device

connected to your TV it is best for each device to connect to its own HDMI port on the back of the TV. You select which of the inputs you want to view on your TV by using the "input" button on your remote. Of course, there must be something (video and sound) coming into that port to the TV for you to see anything. For example, you may have a DVD player connected to HDMI-1, but if your DVD player is not on and playing something, you will not see anything on your TV when you select that input option. If you have some older devices which may not have an HDMI connector, you can purchase a converter device to allow it to connect.

Lastly, I am always amazed by the cost of cables – after all, they are just wires with plugs on the ends, right? If you checkout the prices of cables at stores and the prices on the internet, you will be shocked at the high prices they can charge for these things. Yes, some cables are higher quality than others and may come with better "shielding" to protect the signal, but most prices are much too high for what you get. My advice would be to shop on-line and get the cheapest cable that meets your needs, but make sure you can return it if you are not happy with it. If it doesn't work for you, then return it and move up to the next higher-priced (and hopefully better quality) cable.



You can find out more about HDMI cables and connectors by asking Google, of course. But connecting them is easy, even for us amateurs.

Facebook Extra

By Bob Schultz, Editor, Lake-Sumter Computer Society, FL NewsBytes
www.lscs.us Editors (at) lscs.us

Facebook is either loved or hated by computer/smart phone users. Some think it is a way for people to show how important they are or how much "stuff" they have. Others believe it is a way to maintain or find lost friends. But either case there are hidden files you may like to know about. Here are five areas of concern Facebook has addressed.

1. Did you know that Facebook looks out for you by filtering messages that may be spam? You can check these filtered messages by going to the hidden file and if there are filtered messages you can access this folder by inserting the following address
[\[https://www.facebook.com/messages/\]](https://www.facebook.com/messages/)
 into the browsers search bar. Click on the "clog" icon. This will open a window with several selections. Open "Connection Requests." In the next menu click on "See Filtered Requests". If Facebook detected any suspicious messages, they will be noted.

2. There is another feature Facebook uses to help control your privacy. It is a help that Facebook asks your permission to use a tag when someone tags you in a photo, but maybe you missed it and don't want it tagged. You can review these photos by checking you Activity Log.

To access the Activity Log, just click the "View Activity Log" button located on the bottom right side of your desktop cover photo. In the menu that comes up you can select what you want to see.

3. Have you ever been at a friend's house, used their computer on Facebook and realized when you got home you never

logged out. Do not fear Facebook has made it possible to sign out from home.

Open Facebook and click on the drop-down arrow in the upper-right corner of the home screen and select "Settings". Next click "Security and Login". Look for the "Where You're Logged In". In this section, find the device you want to log off from by clicking the three vertical dots on the left side then select "Log Off."

4. For whatever reason you don't want anyone posting on your timeline but you. Simple. Go to "Settings" and then choose "Timeline and Tagging". Click on "Edit" on the "Who can post on your timeline" section and set to "Only Me".
5. If you do not care what anyone comments on a post, you can eliminate the notifications by turning off notifications for that post. To do this, just go to the post then click on the little arrow pointer on the upper right corner of the post's header then select "Turn off notifications for this post."

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					1	2
3	4	5	6 7-9 pm Arlington General Meeting	7	8	9
10	11	12	13 7-9 pm On-Line Zoom Meeting	14	15	16 12:30- 3:30pm Fairfax General Meeting
17	18 7-9 pm Arlington Board Meeting	19	20	21	22	23
24	25	26	27 7-9 pm Arlington Tech & PC Help Desk	28	29	30
31						
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