TC/PC Exists to Facilitate and Encourage the Cooperative Exchange of PC Knowledge and Information Across All Levels of Experience

December 2015

General Meeting
Tuesday, December 8, 2015
7:00 PM

Microsoft Store:
Introduction to Windows 10

**Location: Microsoft Store
Mall of America
162 South Avenue
Bloomington, MN**

Join us at the Microsoft Store at the Mall of America to learn about Windows 10 and other new and improved products from Microsoft this year. This is your opportunity to bring your questions and concerns and complaints to the experts at the store. Not only do they provide us with information and advice but have in the past generously given us some special offers. Let's have a good turnout for this meeting! ⌨

No Tech Topics with Jack Ungerleider for December .

Also note: the **Microsoft Office/Access SIG** on the third Saturday is canceled for December. See calendar page 11.

The Digital Viking

The Digital Viking is the *official monthly publication of the Twin Cities PC User Group, an all-volunteer organization dedicated to users of IBM-compatible computers. Subscriptions are included in membership. We welcome articles and reviews from members.* The Digital Viking is a *copyrighted publication and reproduction of any material is expressly prohibited without permission. Exception: other User Groups may use material if unaltered and credited.*

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Contact Sharon Walbran at:: SQWalbran@yahoo.com

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Visit www.tcpc.com for meeting details.

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Upcoming Meetings:

Tuesday, January 12th —Everything You've Wanted to Know and What You Should be Doing about Backing Up Your Computer. Presenter: Jack Ungerleider.
🖥

Backup Your Smartphone to the Cloud
by Ira Wilsker, iwilsker(at)sbcglobal.net

WEBSITES:

http://www.usb.org/developers/onthego/

https://www.androidpit.com/app/com.google.android.apps.docs

https://onedrive.live.com

https://onedrive.live.com/options/Upgrade

https://itunes.apple.com/us/app/google-drive-free-online-storage/id507874739?mt=8

https://www.androidpit.com/best-cloud-storage-apps-for-android

https://mega.nz/

https://www.dropbox.com

https://www.box.com

http://www.google.com/drive

Hardly a week goes by that an acquaintance does not ask me about recovering data from a lost, damaged, or otherwise dead smart phone. Just as the three most important words in computing are "Backup!, Backup!, and Backup!", the absolute necessity of backing up the contents of a smart phone may be even more imperative than for a desktop computer. Unlike a desktop computer, smart phones and tablets of any operating system (Android, iOS, Blackberry, Windows, and others) are far more prone to breakage, loss, or theft than the more stationary desktop computers. While many smart phone users do not faithfully back up their important content, those who do can better handle the inevitable disasters that face all users of smart devices.

Many of today's smart phones and tablets offer the option of the use of an SD card of some type to provide supplemental storage and backup space for the contents of their devices, while many other phones only have internal memory without the ability to add an SD card for additional storage. SD cards have plunged in price, as their capacity has increased; recently I purchased three name brand 32GB, 10 speed SDHC cards for some of my devices for about $10 each.   Most phones that can utilize an SD card for "external memory" storage also have an integral function that can automatically back up important data to the SD card, including contacts, SMS text messages, photos and other data, apps, and almost anything else on the phone. While a great idea to have all of this information backed up to a removable SD card, be aware that if the phone is lost or stolen, that the SD card with all of the backup information is with the phone, such that the backup becomes useless to the rightful owner. While it may take minimal time and effort, the contents of the SD card can periodically be copied to the hard drive of a computer, making all important contacts and photos, as well as other information and apps, available if the "unconscionable" were to occur. Most phones can be connected to a computer through a common

USB cable, possibly requiring some minor adjustments to the phone's settings, and then simply copying and pasting the contents of the SD card (and sometimes other internal phone memory) to a hard drive. A removable SD card can also be removed from the phone and either directly or through an adapter, be read directly by a computer just as if it has an attached hard drive. For those who might want the utmost in simplicity and convenience, a new generation of USB flash drives known as "OTG" or "On The Go" flash drives have a proper USB plug that connects directly to newer, compatible phones, with a standard USB plug on the opposite side of the flash drive. To copy or backup the contents of the phone to the OTG flash drive, insert the plug into the phone or other smart device, and download the contents of the phone to the flash drive. The other standard plug can later be utilized to copy the data to a computer as a redundant backup. OTG flash drives are very convenient and inexpensive; a local "big box" store has major name brand 16GB OTG flash drives for about $10, 32GB for about $13, and 64GB capacity for about $22. These OTG drives are great for backing up compatible phones, but only if the user remembers to manually perform the backup on a regular basis, and does not lose or otherwise "misplace" the drive if it should ever be needed to recover the data. Since the other end of the OTG drive fits on a standard USB port on a computer, it is also very convenient to move large amounts of data between devices. Most OTG drives also offer optional encryption to protect stored data in the event the drive itself is lost.

While SD memory and OTG drives may be inexpensive, fast, and convenient tools for backing up the critical information and data on our phones, they still often require manual intervention, and the small devices themselves can be easily lost or damaged. What has been becoming extremely popular as a supplemental storage or backup method has been using "the cloud" for storage and backup. The "cloud" are high speed, high capacity remote servers offered by many providers, and can be accessed over Wi-Fi, 4G or similar wireless connections, or any other method of connecting to the internet from the device.

Several well known companies offer limited free cloud storage, or nominally priced cloud storage for larger amounts of data. Some of the well known cloud storage providers include Microsoft, Google, Amazon, and many other well known companies. Google offers registered (free) Google users up to 15GB of free cloud storage for anything that the users desire to store, as well as an unlimited number of reasonable sized photos and short videos. Google offers a free "Google Drive" app for most devices and computers, including iPhones and iPads. Similar to using a file manager on a computer, Google Drive can be searched; display almost any format of document, image, or video; allow file sharing using a secured link; and perform other common and traditional file management functions. For those who may need more than the 15GB that Google offers free to all registered Google users (and 30GB free to people using "Google Apps"), 100GB of storage is $1.99 per month, and 1TB is $9.99 month, with other capacities available up to 30TB. In terms of full disclosure, I use Google Drive to back up all of the critical content on my smart phone, including contacts, photos, videos, and other information that I would not want to lose in the event of a catastrophe. In addition to the free Google Drive app itself, there are also several other third party apps that can automatically backup contacts and other information to Google Drive (as well as competing cloud storage services). Since this can be automated and scheduled, my contacts and other information are always backed up to the cloud, and can be recovered or restored to my device or a new device as needed, and I am still well under the 15GB limit on the free storage.

Microsoft also offers a similar cloud drive service, "OneDrive" to its registered users (registration is free). OneDrive may be connected directly as a storage method for documents created with Microsoft Office products, including Word, Excel, PowerPoint, and other office products. As with the product from

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Google, OneDrive can be used to automatically backup photos and videos from almost any internet connected device including Apple products, and allows for secure collaboration on Microsoft Office documents. Competitive to Google, Microsoft offers all registered users 15GB of free cloud storage, 100GB for $1.99 per month, and 200GB for $3.99 per month. Paid subscribers to Microsoft's Office 365 service can get up to 1TB of storage included with their monthly Office 365 subscription, which is currently $6.99 per month. As is common with other cloud services, there are many third party apps and utilities that can automatically backup smart phone contents to OneDrive.

Other providers of cloud storage include the very popular Dropbox service, which offers 2GB of free storage, methods and "tricks" to increase the free storage to 16GB, and additional storage for nominal fees competitive with the other providers. Another very economical and easy to use cloud storage service is simply known as "Box" (not to be confused with Dropbox), has free apps available, and offers 10GB of free storage. For those needing additional storage, Box offers 25GB of storage for the price of just $10 per year. One of the most generous free cloud storage deals is available from Mega, which offers 50GB of free storage, along with sophisticated key-based encryption. Mega offers automatic backup of photos and videos taken with the phone's camera. There are also several other very good cloud services including Bitcasa, MediaFire, SugarSync, and even Amazon's Prime service which offers automatic and unlimited storage of photos.

While the storage amounts offered by these cloud services are generous, and all have free apps that can be installed on most devices including Android, iOS (iPhone and iPad), Windows, MAC, and others, there are some negatives about using any of these cloud services for storage and backup from internet connected smart phones and related devices. One issue that frequently arises when backing up large amounts of data to the cloud from a phone is wireless speed, and the time that it takes to perform a full backup of the device. Another issue is the cost of transmitting and receiving large volumes of data, especially for those with limited data capacity and high "overage" charges, as well as a slowed internet connection, known in the industry as "throttling", once a data cap has been reached.

Many of the cloud connected apps default to Wi-Fi as the preferred method of connection, as cell phone carriers generally do not charge for data sent and received over Wi-Fi. The major problem with Wi-Fi connections is the available speed of the Wi-Fi connection at the time of the data backup or restore; if a very fast Wi-Fi connection is available, it still may take some considerable time to complete a large backup, while a slow or weak Wi-Fi connection may be an obnoxiously long wait for the process to be completed. Likewise, if using a home Wi-Fi connected via router to a residential ISP (Internet Service Provider), be aware that some residential ISPs have monthly data caps just like some of the cell phone carriers, and could possibly incur additional monthly charges or "throttling" (slowing down) the internet connection for the remainder of the billing cycle.

Between copying SD cards to a hard drive, backing up to an OTG flash drive, or using any of the many cloud storage services as a backup resource, it is very necessary to back up your phone information, just as it is to back up your computer data. With countless apps available to backup contacts, SMS text messages, photos and videos, apps (often as APK files), and other phone content to any of these storage resources, there should be no need to lose any important data and other information in the event that the "worst" happens.

Be prepared, and backup your smart devices; it is only a matter of time, and will likely be sooner rather than later.⌨
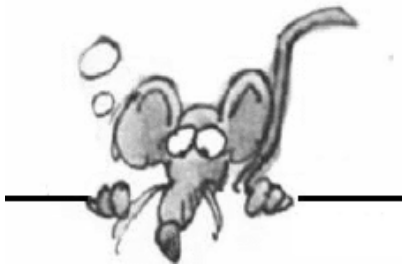
NIBBLERS

By Jeannine Sloan

Swiss to Capture Co2 From The Air

By next summer, the world's first commercial plant that captures carbon dioxide directly from air will begin operation in Switzerland. A handful of other startups are working on similar technology, but Climeworks AG may be first to start turning pollution into cash. The plant pulls air inside, where it gets absorbed in a reusable filter. When it's heated up, the filter releases pure CO2 gas that can be sold to industry.
Read more: http://www.fastcoexist.com/3052554/

Common Advice On How To Make A Strong Password Is Misleading

A study that tested state-of-the-art password-guessing techniques found that requiring numbers and uppercase characters in passwords doesn't do much to make them stronger. The results show that making a password longer or adding symbols is a better way to strengthen it than by adding uppercase characters or numbers. http://www.technologyreview.com/news/542576/

Windows 10's Apps & Features Tool

If you were running Windows XP, then you know that when you wanted to uninstall an application from your system, you went to the Control Panel and used the Add or Remove Programs tool. If you were running Windows 7 or Windows 8.x, you went to the Control Panel and used the Programs and Features tool. Now that you're using Windows 10, you'll go to Settings and use a new tool called Apps & features when you want to uninstall an application from your system. Let's take a closer look at how the Apps & features tool works and the features it provides. Here is a tutorial for using the tool:
http://www.techrepublic.com/article/take-a-closer-look-at-windows-10s-apps-featurestool/?tag=nl.e019&s_cid=e019&ttag=e019&ftag=TREd47db54

Trash-Collecting Boat

Baltimore's Waterfront Partnership is making a change for the better thanks to the Inner Harbor Water Wheel, affectionately known as Mr. Trash Wheel to Baltimore's residents. Installed in May 2014, the Water Wheel sits at the mouth of the Jones Falls River in Baltimore's Inner Harbor. The Jones Fall river watershed drains fifty-eight square miles of land outside of Baltimore and is a significant source of trash that enters the harbor. The Water Wheel has been astonishingly successful at trash removal, visibly decreasing the amount of garbage the lands in the harbor…
Read more: http://www.digitaltrends.com/cool-tech/mr-trash-wheel-baltimore/#

Consequences

If you have told your computer to remember one or more passwords to web sites that require them the method involves the use of "cookies" hosted by your own computer. One site explains it this way: If you are a site member, your User Name and Password are stored in a "cookie" file on your computer. If you have to re-enter your login information whenever you access that site, your cookie file is being deleted from your computer between visits.

Logo or Windows Key Shortcuts

Since Windows 95
Win+D: Hides all windows. Hit again to restore windows.
Win+E: Opens Windows Explorer.
Win+R: Opens the Run window.
Since Windows XP
Win+L: Locks the desktop.
Since Windows 7
Win+Up: Maximizes the current window.
Win+Down: Minimizes the current window.
Win+Left: Docks the current window to the left.
Win+Right: Docks the current window to the right.
Win+#: Switches to the corresponding program in taskbar.
Since Windows 10
Win+A: Opens the Action Center (notifications and quick settings).
Win+C: Activates Cortana listening mode.
Win+I: Opens the Settings app.

Do You Find Passwords Too Darn Hard? Then Poetry's Your Hidden Card!

There's a new sort of password in town: the **iambic tetrameter**. In a word, poetry. Read this Sophos article: http://tinyurl.com/qbkwy3c

Features in Windows 10's Task Manager

Here's a rundown from techrepublic of the enhancements and changes incorporated into Windows 10 Task Manager.
http://tinyurl.com/qx9mz2s

Web Site Recommendation

Internet Archive is a non-profit library of millions of free books, movies, software, music, and more. Great site to waste time. https://archive.org/ (Editor's note: check out the Electric Sheep)

AARPTEK

Learn how to use the technology in your life. "I've been impressed with the AARPTEK classes I've taken. They have a website with online tutorials for how to use technical devices and social media sites. The site is for the techno hesitant ….
http://aarptek.aarp.org/?cmp=RDRCT-TEK-ACADEMY-AUG_015
You can also sign up for free instructor led classes in the Twin Cities at
http://www.aarp.org/home-family/personal-technology/tek.html"
This info originally came from Linda Nelson, but I am a fan.
Submitted by Dianne Runnels.

New Features in Windows 10's Task Manager

This article at TechRepublic will provide you with an overview of all the information that Windows 10's Task Manager provides.

http://tinyurl.com/qx9mz2s

FCC Regulation

"Do Not Track" requests are just that and only that, requests. And according to the Federal Communications Commission, they're requests that don't have to be, and often aren't, honored. In a rather alarming admission on Friday, the FCC said that it couldn't force Internet companies, including giants and huge collectors of personal data like Google and Facebook, to stop tracking their users and their online behavior. Read more:

http://www.digitaltrends.com/web/requesting-do-not-track-settingscompanies-are-just-laughing-in-your-face/#ixzz3rI88D44q

New Version Number

With the Windows 10 Fall Update, Microsoft introduces a new numbering scheme. Instead of Windows 10.1, the new version is called 1511, which stands for 2015 November. Anyone buying or downloading Windows 10 from now on, will receive version 1511; until the next update. Other new features are also described in this article: http://www.makeuseof.com/tag/insider-review-windows-10-fall-update/

Google's About Me Page

Choose the privacy settings that are right for you Signing in to your Google Account is the best way to access and control privacy settings and personalize your Google experience. Sign in to adjust what information you make public and what data Google can use to give you better recommendations and faster results. Once signed in you can change setting in these categories: Your Google Search history Your YouTube watch history Your YouTube search history Google Ads settings Google Analytics opt-out Chrome Cookie settings

https://myaccount.google.com/intro/privacycheckup?hl=en_US&pli=1

App Lets You Pay For Parking

Use the City of Minneapolis's new Mobile App to make paying for your on-street parking more convenient. With the **MplsParking App**, you can pay for parking from anywhere and never have to walk to a pay station or meter. The App is available to pay for parking at all City of Minneapolis on-street parking spaces.

http://www.mplsparking.com/

Emoji Keyboard™

Finally a keyboard that speaks your language.

http://emojiworks.co/

Free Game

What Game Has Been Included Free With Every Copy Of Microsoft's Operating System?

http://www.techspot.com/article/1086-story-of-so

Windows 10 is intended to bring together the disparate PC user base to help Microsoft more

effectively distribute bug fixes and other important updates. Read more: http://tinyurl.com/p52ts4s

Anonymous Hackers Begin Offensive Against Isis

(Editor's Definition of "Anonymous": Confederacy of hackers attacking whomever they disagree with.) They have been called a "digital vigilante group"). After declaring war on the Islamic State, Anonymous says it has taken down more than 5,500 Twitter accounts associated with various IS members and associates.

http://www.csmonitor.com/World/Global-News/2015/1117/Anonymous-hackers-begin-offensive-against-ISIS

Want To Stop Apps From Sharing Your Data? There's An App For That, Too

Northeastern University researchers launched an app called ReCon to track and limit the personal information that's collected and shared by other smartphone apps.

http://tinyurl.com/onbwkzp

Windows Journal

Do a system search for **journal** and you'll come across Windows Journal, an application you might not even have known existed. This tool first came to life in Windows XP Tablet PC Edition, a touch-orientated version of the operating system which didn't sell particularly well, allowing users to create and organize their handwritten notes. In order to type into Journal you need to insert a text box.

http://www.makeuseof.com/tag/5-traces-windows-xp-inside-windows-10-revealed/

Compare Anything

Recently Compared, Every Day vs Everyday, Carpet vs Laminate Floor, Guarantee vs Warranty, Hyperthyroidism vs Hypothyroidism, WordPress.com vs WordPress.org, Hydrocodone vs Oxycodone, Dominant vs Recessive, Double-Hung Windows vs Single-Hung Windows, Gout vs Pseudogout, HDMI vs VGA. Good site to consider checking, I compared Democrat vs Republican:

http://www.diffen.com/

Battery Saver Settings

Windows 10 comes with a new tool called Battery Saver. Once your battery charge falls below a certain percentage, Battery Saver automatically kicks in and throttles back various mechanisms that draw power, thus extending the battery life. To access Battery Saver, select Settings from the Start Menu/Screen. When the Settings screen appears, select the Battery Saver tab. Read instruction with illustrations here:

http://tinyurl.com/o8v6z7r

Special Interest Groups (SIGs)

Most SIGs will meet at Edina Executive Plaza, Conference Room #102, 5200 Willson Road, Edina, MN
 Confirm with a SIG group if they meet elsewhere.
For more info contact the SIG Leader(s) listed here.

Get SIG announcements!
Link from www.tcpc.com

Board of Directors*
All members are welcome! Check www.tcpc.com for location.
Selected Saturday mornings

Linux on Saturday
This is for the Linux newbie and those trying to come over from Microsoft to a different operating system.
First Saturday @ 9 AM-Noon
Note: No Meetings June-August

Jack Ungerleider   612/418-3494 c
                jack@jacku.com

Tech Topics
Technical presentation/discussion on various technical topics from the following areas:
- **Web/Internet**
- **Mobile Devices and Apps**
- **Playing with Programming**
- **DIY (3D Printing, R-Pi, other hobby electronics, etc.)**

Second Tuesday @ 6:00-7:00 PM
Every month
Right before the general meeting.

Jack Ungerleider   612/418-3494 c
                jack@jacku.com

Microsoft Access
All levels. Presentations by expert developers within the group and by MS reps.
Third Saturday 9:00 AM—Noon
Note: No Meetings June-August

Steve Kuhlmey   952/934-8492
                steve@kuhlmeysystems.com

Microsoft Office
Addresses the use, integration, and nuances of the Microsoft Office applications.
Combined with Systems on Saturday
Third Saturday of the Month
9:00 AM—Noon
Note: No Meetings June-August

Steve Kuhlmey   952/934-8492
                steve@kuhlmeysystems.com

Microsoft Word for PC & Mac
Any level user can be proficient and efficient in basics and advanced features of Word..
Combined with Systems on
Third Saturday 9:00 AM—Noon
Note: No Meetings June-August

Tom Ostertag   612/951-5520 w
                651/488-9979 h
Curt Trout   651/484-4569 h
                ctrout@troutreach.com

Systems on Saturday
For all levels of computer challenges and any type of computer-related question. Incl. Q&A
Meets 3rd Saturdays 9:00 AM-Noon
Note: No Meetings June-August

Curt Trout   651/484-4569 h
                ctrout@troutreach.com

Directions to **Summit Place** for **General Meetings**:
Proceed to Eden Prairie Center Flying Cloud Drive . [Flying Cloud Drive runs along the West side of the Eden Prairie Center.] Once you have driven past Eden Prairie Center (on the left) along Flying Cloud Drive you will come to a stop light at Prairie Center Drive. The next intersection with a stop light and left turn lane is Fountain Place. Turn left at Fountain Place and go straight into the parking lot. Turn left again to the first covered entry way of Summit Place. There is plenty of parking in the large parking lot in front of the first Summit Place covered entry way. When you enter the door at the first covered entry way, ask to be directed to the Performance Room for the TC/PC meeting. For a map of more detailed directions and *info on Web SIG and Board meeting*, check the TC/PC website.

Directions to **Edina Executive Plaza** for **Systems on Saturday, Access, Word and Picture Perfect SIGs**: Take Highway 100 to the 50th Street/Vernon exit. [If you have come from the north, cross back over Highway 100 to the east side.] Take the first right and go past Perkins [The golf course will be on your left.] and continue on the east frontage road (Willson Road) to the next building—5200 . There is ample parking in the building's lot. Conference Room #102 is on 1st floor.

Help yourself by helping others!

Join the team & share your knowledge with others.

Contact TC/PC at www.tcpc.com

Meetings start at 7:00 PM (9:00 AM on Saturday) unless otherwise noted. *Meets at Edina Executive Plaza.

December

SUN	MON	TUES	WED	THU	FRI	SAT
		1	2	3	4	5 Linux and Open Source on Saturdays 9:00—Noon
6	7	8 Gen Mtg 7:00 PM Microsoft Store—Window 10 6PM Special Board Mtg	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25 Christmas	26

January

SUN	MON	TUES	WED	THU	FRI	SAT
27	28	29	30	31 Happy New Year	1	2 Linux and Open Source on Saturdays 9:00—Noon
3	4	5	6	7	8	9
10	11	12 Gen Mtg 7:00 PM How to Back Up Your PC 6PM NO Tech Topics	13	14	15	16 Windows & MS Office (including Access) 9:00-Noon
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

DOWNLOADING VS. STREAMING - WHAT'S THE DIFFERENCE?

By Phil Sorrentino, Sarasota Technology Users Group, <u>www.thestug.com</u>,

Downloading is something most of us do, almost without thinking about it. Streaming is something we rarely do, unless we watch a lot of movies from YouTube or another such video streaming service. Downloading refers to receiving data from a remote computer. The data comes "down" to you from another system. The received data is typically a data file of some specific type, like a picture or a video, which is then stored on the local computer, for use in the near or distant future. The received file is called a download. The downloading process will progress as fast as the server computer can send the data to your computer.

That process will be affected by (1) your computer's capability, (2) the communications equipment between the server and your computer, and (3) how busy the server computer is at that specific time. The download really comes in many pieces, and the network protocol software in your machine reconnects all the pieces so the received file is identical to the original.

Downloading is done for many reasons. New software is typically acquired by downloading. (I'm sure you already have Google Earth or Picasa on your computer. Both of these were acquired by a download.) Email attachments are obtained by downloading. (Isn't it is nice to have those pictures of grandchildren and pets?) Documents are transferred by downloading. (Remember the User's Manual you downloaded when you bought your camera?)

Just as a little aside, here. Downloading and Streaming are both supported by network software included as part of the Operating System. There are many network protocols used on the internet, two of which are HTTP (Hypertext Transfer Protocol) and FTP (File Transfer Protocol). HTTP is the predominant protocol used on the internet and really defines the World Wide Web. Most of our computing activities are on the WWW, so it is HTTP that allows our computers (clients) to connect to web server computers in order to accomplish things like checking our email, making hotel reservations, purchasing something on line, downloading a picture or video file, or streaming a movie. FTP is used mostly to transfer computer files from one computer to another, and most of us will rarely, if ever, use it.

So, now we know that downloading is the acquisition of a file, from a remote server computer, for future use. You may be thinking; if downloading is receiving a file, is there a way to send a file? Well, you guessed it, as you might have thought, it is called uploading. Until recently, the only uploading most of us may have done was to attach a document or picture to an email. The act of "attaching" was actually uploading a file (the attachment) to the email server, so it could be sent with the body of your email. But now with Cloud Servers like OneDrive, Google Drive, and Dropbox, the way you get your files to the cloud is by uploading them. Uploading your pictures and videos, or any file that you want to share with others, is probably the first thing you will do after you have set up an account with one of these Cloud services. (By the way, if you haven't tried a Cloud Service yet, give one a try. OneDrive and GoogleDrive will give you at least 15GB of storage space, free. OneDrive is hosted by Microsoft, and you guessed it, GoogleDrive is hosted by Google.)

Downloading is receiving a file from a remote server for future use. (In fact, the file cannot be used until the complete file is received and stored.) Streaming is similar, in that it is the transfer of a file from a remote server to your local computer. But the difference is that the file pieces, as they are received, are immediately used and typically are not stored for future use.

So, as you can imagine, the software to handle streaming is different in that it must process the pieces of the file, in real-time as they are received, and do it fast enough so no pieces of the file are lost. So, streaming is the process of receiving sequential pieces of a file and using those pieces immediately as they are received while the transmission continues its progress to the end of the file. Streaming data is provided by video and audio file streaming services. YouTube is an example of

such a video streaming service, as is Netflix and Vimeo. (By the way, you can upload your favorite videos to YouTube and Vimeo for sharing.)

So, streaming is used to view, in real-time, a video file, like a movie, or listen to music in real-time from a music source. In video streaming, each of the file pieces is a frame of the video and the frames are sequentially displayed on the computer monitor, thereby providing motion to the picture on the monitor. Video frames may have to be displayed at rate of 60 frames per second, so the streaming software has to get all of its work done within 1/60th of a second so it can be ready for the next frame. If the hardware and software cannot process the frames fast enough, frames may be dropped and the resultant picture will stutter or jump. Audio streams are slower than video streams but they too have to produce the audio sound from each file piece before the next piece arrives. (Pandora is an example of an audio streaming service.)

So, now you can see the difference. Downloading is receiving a complete data file and storing it for future use, while Streaming is receiving a file and processing the contents, piece by piece, sequentially from the beginning to the end of the file transmission. Now to experience them, first hand, try both a download and a streaming video or audio. Try downloading Synctoy from Microsoft, a utility that will help you handle your data backup (http://www.microsoft.com/en-us/download/details.aspx?id=15155), and Stream something from YouTube to help you with setting up your data backup https://www.youtube.com/watch?v=GiNZPzFxoSc

TIPS FOR PRINTING A POWER POINT PRESENTATION
By Nancy DeMarte, Sarasota Technology Users Group, www.thestug.com

Microsoft Office users can find many uses for the powerful presentation application, PowerPoint. In a matter of minutes, a person can create a decent, professional-looking series of slides for meetings, classes, special occasions, or trip memories. These can be projected on a screen or shared with others through the Internet. Sometimes the creator might have a reason to print the presentation slides. Ironically, it is easier to create a slide show with PowerPoint than it is to choose the appropriate settings for printing it. PowerPoint offers more options for printing than any other MS Office program.

Why would a person want to print a presentation? If the slides contain a lot of informational text, as they might for a class or meeting, then the audience would certainly benefit from a copy to take home. In another scenario, an audience member might have missed the presentation and need to see what it contained. The presenter might want a copy for his or her files or one that includes notes.

What are the best printing options? The default option prints one copy of the entire show with each slide being Full Page size. Most of the time this is the worst choice. It uses an unnecessary amount of paper and a large amount of printer ink or toner. Let's look at other choices.

If I am the presenter and want to distribute handouts to an audience, I have a choice of the number of slide thumbnails I want per page up to nine. When choosing the number of slides to print, I consider two things: how many pages do I need to distribute the slides evenly among the pages, and how important is it for the audience to be able to see the details on each slide, since fewer slides per page result in larger slide thumbnails.

If I want the audience to have room to take notes during the presentation, I often choose the three slide per page option, which prints thumbnails large enough to make details easy to read and includes lines next to each thumbnail for note taking. If the presentation is mainly text, then printing the text only Outline view might be enough for my audience. Besides, it saves paper by reducing the number of pages.

In several layouts with multiple slides per page, I must choose whether to display the slides horizontally or vertically. I most often choose horizontally because it is the common reading direction in English.

The presenter might select the Notes Page view for his or her own copy. This option prints a half page slide thumbnail on each page, as well as the notes the presenter has typed below each slide as he or she created the presentation.

Other print options include printing on one or both sides of the paper, collating the copies into complete sets of pages in order (1, 2, 3), and printing in color. Unless color is an important part of the presentation, such as a photo album, my advice is to choose one of the two non-color options – grayscale (black, gray, and white) or pure black and white. Ink is expensive. Once I have customized the print options for a presentation, I can save my changes in PowerPoint Options. Click File – Options – Advanced, and scroll down to "Print" to find specialized options related to print quality. Scroll further to the "When printing this document" section to save your current print settings for future printings of this presentation.⌨

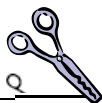# You have just read an issue of The Digital Viking.

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December 8, 2015
General Meeting 7:00 PM

Microsoft Store:
Introduction to Windows 10

Location: Microsoft Store-
Mall of America
162 South Avenue,

More info and map:
www.tcpc.com
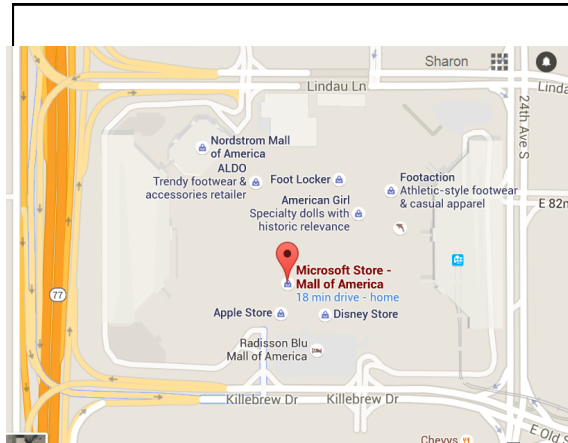
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