



AITS Newsletter

AUGUST 2017

Administrative Information Technology Services (AITS) [By Abraham John, Senior Director, AITS]

Administrative Information Technology Services, a department of University Information Services area, delivers information technology services, infrastructure and consulting to the UNT administrative departments in support of the university's mission.

AITS is an operationally driven information technology services department and our basic mission is to meet the technology needs of all our departments in the pursuit of the University of North Texas mission.

To accomplish its mission, AITS employs well-trained and knowledgeable IT professionals who have an effective combination of academic foundation, technical expertise and experience.

AITS provides a wide range of information technology services to the administrative community. The team is located strategically across campus to provide the most responsive service possible.

The AITS team builds and manages server resources for all of the administrative departments at UNT. The servers range from file servers to web, application, surveillance, environmental controls and database servers. The complexity can range from the very simple to the highly complex to meet the needs of FERPA, HIPAA and PCI regulations.

The AITS team also provides desktop and user support to the administrative departments and staff members. This covers configuration, deployment, security and ongoing management. Support also extends to the labs and public kiosks in each department.

Focus on service

- Achieves its goal within a framework of collaboration, communication, integrity and accountability;
- Serves students, faculty and staff within the context of IT support provided to the administrative areas;
- Builds and/or manages video-surveillance systems, provides video surveillance to UNT and satellite campuses;
- Is the liaison between the departments and ITSS; and
- Provides consulting, planning, design and implementation services for any technology effort initiated by our departments

<https://it.unt.edu/aits>

The heaviest desktop computer was the IBM 5120 at 105 lbs. An external floppy added another 130 lbs.



UNT Enterprise Applications [By Dorothy Flores]

EIS Fun Facts

- 32,906,928 -> Number of updates made to Campus Solutions database in April.
- 540 -> Average number of logins per minute to UNTS portals during its busiest week. (3rd full week of January)



chrome

- Is the most popular browser to use with EIS representing 38.6% of all use. Internet Explorer is next with 22.2%. Iceweasel is used by less than 0.1% of EIS users.

Top 12 Last Names in EIS

1	Smith	10,389
2	Johnson	8,194
3	Williams	7,600
4	Jones	6,651
5	Brown	5,856
6	Davis	5,381
7	Garcia	4,683
8	Martinez	4,608
9	Rodriguez	4,351
10	Hernandez	4,029
11	Miller	3,915
12	Nguyen	3,884

Did you know...?

UNT has a Mobile App!

Through a collaborative effort between Enrollment Management and IT Shared Services, in December of 2016, UNT launched the first phase of its new, official mobile app intended to provide an improved student experience. New features in the app now give students an easy way to get to information that used to require endless searching on the UNT website. Phase 1 included the following features and functionality:

- | | |
|--|---|
| <ul style="list-style-type: none">• Course Module in EIS<ul style="list-style-type: none">○ View/Search Classes○ Grades○ Class Roster○ Assignments○ Announcements○ Discussions○ Course Catalog | <ul style="list-style-type: none">• To-do's (Checklist Items)• Calendar• Events• Maps and Way Finding• Faculty/Staff Directory• Campus Information |
|--|---|

Microsoft
Windows 1.0 was
released on
November 20,
1985.

So far, the new mobile app has been downloaded 14,400+ times and has gotten some great reviews. iOS shows 4.3 out of 5 stars! Here is a sampling of just a few of the comments:

UNT Mobile App

by Anthonyj2428 on Feb 07 2017, version 4.0.86

Helps me keep up with assignments so that I never forget or miss one.

Clubs and Organizations List

by Flowers_bv on Apr 21 2017, version 4.1.26

I love this app as I'm a newly accepted student and this is for me to search through and use. But I would like to know more about clubs that are on campus and I don't see them anywhere under "Campus Life". Could you make

Surprisingly Handy

by Legit panda104 on May 18 2017, version 4.1.26

In general i was pleasantly surprised by how useful this app is for undergraduates. Even though I only needed it for a semester before I finished my degree, it was useful a number of times. Being mainly a UTA student, I wish our app was this functional.

So helpful!

by IndyBlaze on Mar 16 2017, version 4.0.86

Parent of student-to-be and it's so helpful

Bill Gates' house was designed using a Macintosh computer.

Phase 2 of the rollout is in progress and will include new features which will allow students to more fully interact with EIS once they are available:

<ul style="list-style-type: none"> • Enrollment Module <ul style="list-style-type: none"> ○ Add/Drop/Swap Classes ○ View/Notify Wait List • Bill Pay <ul style="list-style-type: none"> ○ View Accounts, Charges, Payments ○ Pay Bill 	<ul style="list-style-type: none"> • Financial Aid <ul style="list-style-type: none"> ○ View Aid ○ Accept/Decline Aid • View Holds • Update Emergency Contact
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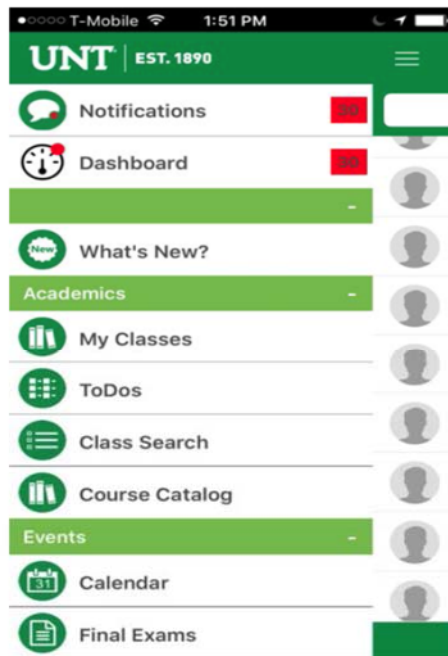
Even for those who are faculty or staff, there are some features that may be useful, like the campus maps, faculty/staff directory, events, and quick access to the UNT website. Simply download the app for either the iPhone or Android device, login with the official UNT userid and password, and select the "Current Student" profile. Remember, the new app is currently focused on the needs of students, so some of the features may not be relevant for faculty or staff.

There are three views to choose from when using the app, each with a different look and feel. The one below is the default view called **Sidebar**:

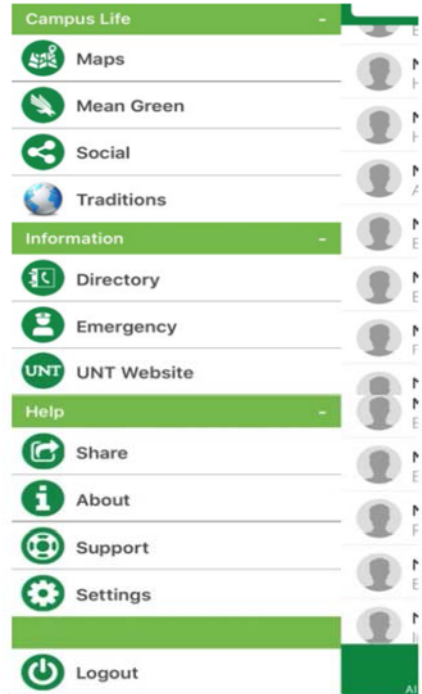
Enjoy this brain teaser 😊

What word is the opposite of the following scrambled word?

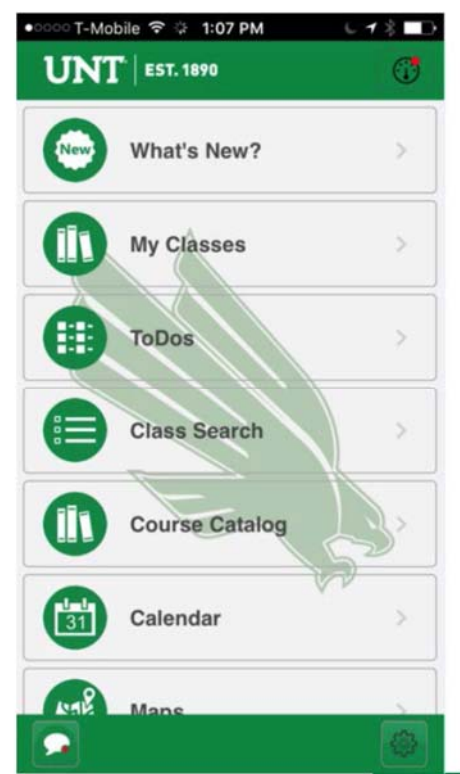
USSAIUOPLIMNL



The others options are **Grid...**



...and **List** views.



Whichever view the students choose for utilizing the new UNT mobile app features, it is clear that the new app is already proving to be a great addition to the UNT student experience.

It is providing much needed and long awaited technology that students expect...the ability to access many desired features on their mobile devices, find pertinent information, and be alerted to critical events and activities. Future enhancements are planned and will be rolled out as they become available.

Anyone interested in more information about the mobile app should attend the up-coming "IT Works!" event on September 29, 2017, 8:30 a.m. to 4:30 p.m., in the UNT Gateway Banquet and Conference Center.

Password Managers [By Mark Hurtado]

Human memory is terrible. It is unreliable, inconsistent, and limited in storage. Many times, we forget important things or we will remember something that is completely wrong. Thankfully, we have built computers with near-perfect memory when it comes to storing data. With this, though, we now lean on computers for everything in our lives. Outlook stores our schedule and mail, Netflix stores our movies, Facebook stores our pictures. To access all these services, we have adopted the use of an incredibly important yet simple idea: The password.

Something that everyone does multiple times a day is enter a password to prove his or her identity. Consequently, since human memory is terrible, a well-known phenomenon occurs: People reuse the same password for everything. This is a big problem, and not many people can solve it by trying to remember 100 unique passwords... our brains are not built for that. One thing that can do this, however, is the modern password manager.

There are two major applications out there that can be used for personal password management: LastPass and KeePass. The major difference is how user-friendly these services are: LastPass takes care of cloud storage and syncing across devices, while KeePass creates a file that you are responsible for managing yourself. If you are a little wary about how much effort it will take to manage your passwords, I would recommend LastPass. However, if you want complete control over your passwords, KeePass is the way to go. Either product will work, but their security depends on one thing: how strong you set your master password.

Once you have chosen the application you want to use, the next step is to come up with your MASTER PASSWORD. For ideas on how to create a good master password, look back at the last AITS newsletter. Troy Bacon's article has great ideas on how to generate a "passphrase" instead of just a password. The longer the password/phrase, the more secure all your passwords will be.

The next step is the hardest, though not as hard as you would think. Go to every site you use and change your passwords. Come up with something completely random that you will never remember, and make sure it matches the one saved in the password manager. BE SURE TO USE COPY/PASTE! Typing in long, random passwords every time is not easy, and should not be necessary.

If you are overwhelmed by how many passwords you will have to change, take it slow! You don't have to change all of your passwords at once. As part of my job, I have to type in my UNT password at least 100 times a day, so it would not be practical for me to change it to something I have to copy/paste. Overall, you will be much more secure than if you were using the same password for everything. Just take those first steps to get started!

*Did you know
that on August 1,
1917 – 100
years ago – the
Pope sent a Note
to the warring
governments in
an appeal for
peace?*

The Importance of Using a Secured Wireless Network [By Jennifer Lee]

We rely on accessing information wirelessly every day, even and especially when we don't even realize it. Accessing a connection in a location that is commonplace is even easier thanks to the way our devices interact with incoming connections. No longer do we need to keep a running tally of locations, network names and passwords to use each time we use a wireless connection. Our devices are kind enough to remember networks the information that will grant us access to that specific network without the need to do anything except just be there.

While these procedures provide for a much more streamlined ability to continually access the information that we need or desire, the ease of the process can also leave us prone to just accept that the way we connect is secure. The ever popular "out of sight, out of mind" attitude can leave the information that we utilize vulnerable to exploitation by anyone with desire and determination, inexpensive equipment and the ability to access google.

Fortunately, inhibiting the efforts of those seeking to misuse others personal information is just as simple. It is just a matter of taking the half a minute or so to make sure the 'padlock' symbol is associated with the network that we are using and/or checking the address of the websites that we used begin with 'https://'. The first is especially important since our devices have the ability to auto connect to available networks, and that does not necessarily mean that the network that is connected will be one that is secure. The second is important because using unsecured websites leaves our website access information especially vulnerable.

Taking the time to check how you are connected isn't difficult or time consuming and in the end can save time, effort and even money. You are the only one who should have access to your information after all.

On August 1st, 1917 the battle of Ypres was raging when the BEF 5th and 2nd armies along with the French 1st army attacked the German 4th army at the Ypres salient.

Sir Tim Berners-Lee coined the phrase "World Wide Web" in 1990.

Bluetooth [By Ginger Boone]

Wikipedia definition. Bluetooth is a wireless technology standard for exchanging data from fixed and mobile devices, and building personal area networks (piconet).

Common Bluetooth Devices:

- Cell phones
- Head phones
- Cameras
- Speakers
- Printers
- Keyboards/mouse
- Gaming Consoles
- Watches
- Tablets

How does it work?

Bluetooth is designed to communicate short distances of no more than 30 feet using radio waves in a band of 79 frequencies or channels that center on 2.45 GHz. Bluetooth devices send and receive radio waves through a tiny computer chip and software. Because of the short distances, low power usage, and constantly changing between frequencies, they are considered more secure than wireless networks that operate over longer ranges, such as Wi-Fi. If you have several devices to pair, one is the master and the others are the slaves. The limit is pairing of 8 devices. Sounds real technical, but what's so cool about Bluetooth is that you do not have the wires that tangle up or get lost. Some devices like your cell phones, you have to turn on Bluetooth through your phone settings. Once you turn it on and have another Bluetooth device close by, they were automatically find each other and you usually tap the device setting to pair. Sometimes a pin or code is required. Just keep the manual handy that came with your device, it should have instructions or go to the web site of your device on the support module for instructions on pairing your devices.

Etymology of the Name -Wikipedia

The name "Bluetooth" is an Anglicised version of the Scandinavian the epithet of the tenth-century king, Harald Bluetooth, who united dissonant Danish tribes into a single kingdom and, according to legend, introduced Christianity as well. The idea of this name was proposed in 1997 by Jim Kardach of Intel who developed a system that would allow mobile phones to communicate with computers. At the time of this proposal he was reading Frans G. Bengtsson's historical novel The Long Ships about Vikings and King Harald Bluetooth. The implication is that Bluetooth does the same with communications protocols, uniting them into one universal standard

Sources: www.explainthatstuff.com

3D Printer [By Alan Garrison]

You have likely heard of 3D printers but may not know the variety of potential uses they have. 3D printers continue to increase in availability while price continues to decrease. There are now many models available for a retail price starting as low as \$500.

You're probably thinking – the price sounds great, but what can I do with one? There are many potential uses within the home. One is to make a replacement part for an older appliance such as a plastic latch on the dishwasher door handle. Another great use is for a replacement part for a child's toy or game. I am sure many of you have witnessed the sudden disappearance of the major playing pieces of a board game or even the items for a dollhouse. Some people are making creative storage boxes such as for small batteries, cell chargers, or ear buds. Additionally, some people are making a 3D model of a proposed renovation or remodel of a home.

Rather than using ink or toner like a traditional desktop printer, a 3D printer uses filament as the material for the product you make. Filament comes on large reels, comes in a variety of colors, and it feels like plastic. Once you have selected the image of what you want to make with your 3D printer, you load the filament spool into the feeder on the 3D printer. Depending on what you are making, you might have parts with different colors and need to use different filaments. The printer will then begin using the filament to make the product. The filament becomes very hot and melts and molds into the shape you desire – the 3D printer puts layers of filament on top of layers to create the necessary shape and thickness. The one area that is a bit challenging still with 3D printing is cleaning the filament from the machine nozzle once a job is complete – fortunately printer manufacturers are working to make this easier. 3D printing is not fast – a product can take several hours but the process is amazing.

If you are not quite ready for your own 3D printer, you might be interested to hear of other options. Lowe's has opened an innovation center in New York where you can visit, submit your plan or image of what you want, have an employee help you, and your model will be available to you the next day.

Closer to home, the UNT Library has an area called "The Factory" that has several 3D printers among other state of the art equipment with trained staff on hand to assist you in creating your project. You might stop by "The Factory" sometime to see an actual one on display and perhaps be lucky enough to see one in action. For several years, the automotive industry has been using 3D printers for prototypes. Now, Mercedes Benz is using 3D printers for some of the small parts on the larger industrial trucks. They have discovered that using 3D printing technology is more economical than doing traditional manufacturing runs and having to locate warehouse spare for the extra parts.

As the price continues to decrease and the 3D printing technology continues to mature, many more industries will continue to increase use of these machines. Who knows – 3D printers may someday become as widespread as inkjet printers have become.

Sources:

- <http://www.reuters.com/article/us-daimler-3dprinting-idUSKCN0ZT201>
- <https://www.solidsmack.com/cad-design-news/lowes-begins-offering-store-assisted-3d-scanning-printing-services/>
- <http://www.makeuseof.com/tag/6-ways-to-make-use-of-a-3d-printer-at-home/>

*Did you know
that email
existed before
the World Wide
Web was born?*

Skimming: A Tale of Two Swipes [By Matthew Fenton]

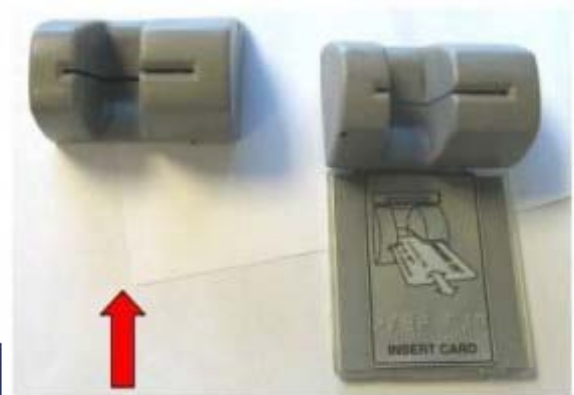
Skimming can mean several things – to remove a substance from the surface of a liquid, to read something quickly noting important points, or to bounce a stone over an expanse of water – but today I am here to talk about the informal meaning – to fraudulently copy payment card information.



provided some examples courtesy of <https://krebsonsecurity.com/>.

If that was not bad enough, thieves have started implementing their tactics in retail establishments across the country. Most often, these new skimmers are placed over the top of credit card terminals in self-checkout lanes. Self-checkout lanes have become a common convenience everywhere we shop, but the concepts that make them so convenient also put them at risk. Cashiers are not constantly

Basically, a nefarious individual will place a similar faceplate, keypad, or card swipe over an existing one so that every time a card is swiped the magnet stripe, pin number, or card number is recorded. The crook then either physically retrieves the device after a set amount of time or in some cases gets close enough to connect wirelessly over Bluetooth. Obviously skimming is nothing new and there have been a lot of news stories showing rudimentary, yet convincing, swipes attached to gas pumps and ATM machines. I have



The real card reader slot.

The capture device

monitoring them for suspicious activity giving gutsy criminals a small window of opportunity. Below is an example of one such skimmer found at a Wal-Mart in Kentucky. As you can see, it would be very difficult for the average person to identify such a device as being fraudulent.



At this point, you may be wondering, is the whole world against you? Are you doomed to have your card information stolen? Is there nothing that can be done to protect you? Well you are in luck! I have a couple tips that can help keep you out of trouble. Most importantly, inspect a device before you attempt to use it. Do not be afraid to pull or tug on the swipe mechanism, as it should not be loose or wiggle. Skimmers are not designed to last forever and are typically removed very easily. Also, it may seem silly, but shielding the keypad while you type in your pin number is an easy way to deter prying eyes or well-placed cameras. Finally, be sure to check your accounts regularly for any suspicious activity and be sure to report any to your financial institution.

Mosaic, released in 1993, was the first popular web browser.

Streaming TV [By Matthew Trammell]

With high speed internet now available in many apartment complexes and neighborhoods, streaming TV is rapidly growing in popularity and can even be a great way to save on your monthly expenses. Sound exciting? Great! My family recently made the change and we have been happy with our decision. I called our cable company and changed our plan to Internet only. Then, I installed our selected streaming apps on each of our streaming devices. Now, I have access to a variety of TV shows and movies that I can watch on my TV, computer, phone, or tablet. Yet, figuring out how to get the content that you like to watch can be a bit overwhelming. So, let us get going!

First, you need Internet to stream TV. Do not drop your Internet! There are two basic choices for Internet: cable or satellite. I recommend cable Internet, if available in your area. Cable is generally more reliable since it delivers the Internet to you via a wired medium. In return, you will have faster download speeds and more consistent speeds. If cable is not available in your area, satellite is a good alternative. Keep in mind that with satellite, inclement weather, trees, and other obstructions may interfere with the strength and consistency of your Internet signal and speed. Next, you must choose your download speed. Download speed is typically measured in Megabits per second (Mbps). A top streaming content provider recommends 3.0 Mbps for standard definition video, 5.0 Mbps for high definition video, and 25 Mbps for ultra-high definition video. The primary cable companies in the Denton area are Charter and Frontier. AT&T, alongside Charter and Frontier primarily serve the Dallas area. For satellite internet, HughesNet and Exede are two options to consider. Lastly, do not forget the router. A router is the hub of your home network and how you will get the Internet to your streaming devices. Generally, your Internet provider will allow you to purchase or rent a router. Alternatively, you can purchase one from your favorite electronics store.

Second, you need a streaming device. Chances are you probably have one. Computers, laptops, tablets, and smartphones all make great streaming devices. Simply download the streaming apps that you want, log in to your account, and start watching. If you are in the market to buy a new TV, you can purchase a Smart TV or Roku TV that come preinstalled with apps. If you already have a TV, you can buy and connect one of many devices, such as a Roku Streaming Device, Amazon Fire TV Streaming Stick, Apple TV, Blu-ray player, PS3/PS4, or Xbox to your current TV. I am sure that I missed a device, so please do not assume that this list is all inclusive. Roku is a popular company in the streaming world. Most of their TVs and devices come preinstalled with many of the apps that you would need. Some devices, such as Smart TVs and Blu-ray players have apps installed on them, but you cannot remove them or add new apps unless the manufacturer decides to provide a firmware update. The bottom line with streaming devices is to find out which apps come preinstalled on them and to find out if you can install additional apps. Once you have a streaming device, connect it to your TV, as instructed in the user manual, and to your router, either wired or wirelessly. Alright, I think that about covers setting yourself up for streaming TV. Let us move on to the fun part! The apps!

Finally, you need streaming apps. First, I would like to note that many of the apps require a paid subscription to view content, so please keep that in mind. I started the process of selecting apps by first looking at our DVR and making note of the shows that we watch. With two young kids, we do not spend a lot of time watching live TV, so DVR was very important to us. If you search for "streaming TV", you will see Netflix and Hulu among the search results. Inconsequently, these are two of the most popular app providers. Netflix has a large selection of original shows, TV shows, and movies. Hulu has its own original shows and movies as well, but it really shines in offering current TV show seasons and episodes. I also like how Netflix and Hulu give you access to the complete seasons of a TV show. This allows you to go back to Season 1, Episode 1 and catch up. I bring this up because Amazon

*The first domain name registered was **Symbolics.com**. It was registered on March 15, 1985 to Symbolics Inc. Symbolics ceased to exist May 7, 1996.*

Bill Gates, the founder of Microsoft was a college dropout.

Prime Video, a third app option, tends to give you the first few seasons of a TV show and then requires you to buy its remaining seasons. Amazon Prime Video, however, does come with the benefit of Amazon Prime Shopping and the ability to have nearly anything at your doorstep within two days. An Amazon Prime Video subscription starts at \$10.99 per month. The basic plans for Netflix and Hulu start at \$7.99 per month. Each provider offers additional add-ons that can increase the amount of content available, limit commercials, increase video quality, and/or increase the number of simultaneous devices that you can watch content on. All three providers come with a 30 day trial which allows you to try their service and see if they have your favorite shows.

Now, I would like to spend some time on streaming live TV. Search for "streaming live TV" and you might come up with services such as Sling TV, DirectTV Now, and Hulu Live TV. My oldest is 2 years old and he likes many of the Nick Jr shows. I stumbled upon Sling TV while searching for how to get Nick Jr without paying for cable TV. Sling TV has two basic packages: Sling Orange for \$20 per month and Sling Blue, which includes Sling Orange, for \$25 per month. Sling Orange gives you 28 channels. Sling Blue gives you 44 channels (which includes Nick Jr). Sling TV also has several add-on channel packages to choose from. DirectTV Now is a second option. Their basic plan starts at \$35 per month and includes 60+ channels. Of course you can add channels for \$50, \$60, or \$70 per month. That will get you 80+, 100+, or 120+ channels respectively. Hulu Live TV is a third option. For \$39.99 per month, you get 65+ channels, plus access to the entire Hulu streaming library. Additionally, with each service, you can add premium movie channels like HBO and Showtime. Now, you may be thinking about DVR? Me too! Hulu Live TV does have cloud-based DVR for an additional fee. Sling TV is rolling out cloud-based DVR as an add-on. It is currently in beta testing. DirectTV Now has video on demand on content which is available up to 72 hours after a show airs. I expect that DirectTV Now will consider a cloud-based DVR solution if they are not already doing so. Finally, each of these services that I mentioned gives you a 7 free day trial to see if they are right for you and provide the content that you want.

As you can see, there are many cable TV alternatives out there. I am sure that as you research streaming TV, you will come across even more apps and services. Some may not even have a subscription fee. Let me conclude by going over our current streaming TV setup. As much I wanted Nick Jr for my kids, we decided on Netflix and Hulu. Netflix and Hulu both have a great selection of content. My son already has some new favorite shows. My daughter is 6 months old, so she does not have any favorites yet. For streaming devices, we have a PS3, Windows 10 PC, Windows Phone, iPhone, and Amazon Kindle Fire tablet. I bought our router from our cable company, Frontier. They provide our Internet. I went with 50 Mbps speed. Because of the changes we made, we cut our cable bill by nearly 35% and we still enjoy most of the content that we watched while we had our triple bundle package.

*1024 Gigabytes is
equal to 1 Terabyte.*

Net Neutrality [Daniel Wiersema]

Most people when they hear of Net Neutrality, they stop listening. Maybe because they don't know what it is, or think it will not affect them, or they just don't care. So what is Net Neutrality? The Definition of Net Neutrality is "The Principle that Internet service providers should enable access to all content and applications regardless of the source, and without favoring or blocking particular productions or websites." A more simple definition would be Pro Net Neutrality would be everyone is on a level playing field. Whereas if we did not have Net Neutrality there would be favors bought and given to companies, people, and sites.

So if laws are past that make it where the internet is no longer on a neutral playing field, things would look a lot different then what we see. One home example would be, you own Netflix, but not amazon prime streaming. You love Netflix. But since there is not an even playing field. Amazon decides to pay your Internet Service Provider for a faster connection to you, but Netflix decides not to. So when you go to Netflix and try and stream it will lag and slow. Or Netflix could pay for it, but charge you the customer more. One the other hand your Internet service provider could charge you more for using that service. Another example is what if we as UNT don't pay for it, but another college does. When people go to our websites the page might load slow or not correctly which in turn leads to people clicking away and less views. Which means more unhappy students and employees.

If you use the internet in anyway, having fair Net Neutrality laws put into place is great for you. Competition is great if it is on an even playing field that is what makes things better. Remember next time Net Neutrality comes up in a vote or even a conversation. If the internet is not on a level field then anything from loading a webpage to watching a movie, to paying a bill to listening to music might become a daily frustration.

When Computers Make You WannaCry [Keith Kellermeyer]

Typically, we try and think of computers as tools, but we're slowly finding that computers are becoming more like extensions of ourselves, rather than a something to pick up, use, and put back down. That being said, when your computer begins to show signs of a virus, your blood pressure rises, heart begins to race, and head starts to pound, as if you're body has contracted it, rather than your machine. And what are you so worried about? Not necessarily the machine itself, but what it holds: your data.

What we know

Recently, there have been several global attacks on electronic devices that have left governments, and entire countries, crippled. The two most recent attacks are called WannaCrypt and Petya. These two names refer to ransomware - a version of malware in which your data is held hostage until you pay a ransom. Your data is encrypted without your knowledge and then a ransom note is displayed requesting payment. But the two attacks featured above have evolved beyond just encrypting your data.

WannaCrypt and Petya not only encrypt your data to be held hostage, they use your computer to gain access to other computers on your network, and spread like a worm. This is how these attacks became global. Petya, upon release on June 27th, was distributed to the entire country of Ukraine within hours. Banks, ministries, metro systems, and even the radiation monitoring for Chernobyl Nuclear Power Plant were affected and went offline.

What happens next?

With ransomware gaining traction, security concerns have been mounting at a global level. Nobody knows what, or who, the next target could be. The International Space Station? North Korea's nuclear missiles? Or even the thousands of medical devices imbedded in people across the world. Insulin pumps and pacemakers are two of the most common medical devices controlled and adjusted through wireless technology, managed by your physician. Imagine if their network became infected with ransomware, which then spread to the medical device keeping you alive. You could be held ransom by the machine in your chest.

I guess we really have become "one with technology".

Ubuntu is an ancient African word meaning 'humanity to others' and it also means 'I am what I am because of who we all are'. Ubuntu is also the name of a popular Linux Operating System distribution.

Payment Card Industry – PCI – Credit Card Processing [By Mickie Tate]

PCI applies to all system components included in or connected to the (credit) cardholder data environment (CDE). The CDE is comprised of people, processes and technologies that store, process, or transmit cardholder data or sensitive authentication data.

The most effective way to become PCI compliant is to not have PAN (credit card Primary Account Numbers) in the environment. One way to accomplish this is by using tokenization. If reference or identification numbers are needed, consider using the last four digits of the credit card number or a tokenized version of the card number for identification if necessary. The difference between tokenization and encryption is that encryption can be reversed engineered, a token cannot. Encryption is an important tool within PCI but encryption in-and-of-itself does not reduce the PCI scope. There are very specifically defined ways that encryption can be used to limit the PCI scope and the implementation must be assessed and approved by the PCI Committee.

Once you have removed as much PAN from the environment as possible to limit scope, the next step is to segment the CDE from the rest of the computing environment. Segmenting the CDE from the remainder of the network further reduces the scope of PCI, reduces the amount of work necessary to be PCI compliant and limits the number of areas that are vulnerable for compromise. Segmentation is not a requirement, but very beneficial. Segmentation can be accomplished in several different ways but any PCI implementation must be discussed with, and approved by your IT representatives and the PCI Committee.

Technology plays a major role within PCI but the importance of the human factor cannot not be emphasized enough. Institutions and organizations can spend literally millions of dollars toward PCI compliance but the human factor can undo all of the IT security anyone can put in place.

Social engineering remains one of the biggest threats to all levels of IT security, including PCI. Always remember and adhere to the basics of good personal IT security:

- Create a strong password (consider using pass phrases);
- Never give your password to anyone;
- Never store your password in a public place such as in your desk, on your monitor or under your keyboard;
- never click on *unknown links* whether coming from an unknown source or what looks to be a known source (as these addresses can be spoofed as well); and
- Never leave your system unattended without locking the console when you plan on being away from your system for any significant length of time.

PCI is complex and there are many moving parts but when managed properly and conscientiously, technology and human risks and vulnerabilities can be reduced, and PCI compliance can be made manageable.

In 1950, Frank McNamara, head of the Hamilton Credit Corporation, founded the Diners' Club Card. This is the first card that could be used in multiple locations.

*September 29-
October 5, 1918
the British 4th
army breaks
through the
reserve defenses
of the Hindenburg
Line.*



Dear UNT community member,

UNT's University Information Services group and the UNT System Information Technology Shared Services group would like to invite you to attend their first joint conference, **I.T. Works!**, on **Sept. 29 in the Gateway Center**.

The conference will include a full day of break-out sessions that will provide you with a learning opportunity and raise your awareness and familiarity of the breadth and depth of IT services. Faculty and staff presenters will discuss why IT projects fail, evolving academic needs vs. operational security, artificial intelligence, analytics and more. This conference will also highlight the strategic, tactical and operational parts of Information Technology that provides our institution a competitive advantage.

In addition to UIS and ITSS, participants and presenters will join us from Administrative Information Technology Services, University Information Technology, Classroom Support Services, Information and Decision Sciences faculty from the College of Business, and IT Management and Service Teams from UNT colleges and schools.

[Register for the conference online](#) and indicate your session preference. Please note the first 200 registered participants will receive lunch.

Please watch for more information as we get closer to the conference date. If you have any questions, you can email us at UNTITConference@ad.unt.edu or call 940-565-4790.