The Cloud is Here Don't Get Left Behind

Willow Valley Computer Club April 4, 2024

Brought to you by....

APCUG's Speakers Bureau, a benefit of your group's membership in APCUG

Judy Taylour, President, SCV Computer Club Member, APCUG Speakers Bureau APCUG Regional Advisor jtaylour (at) apcug.org



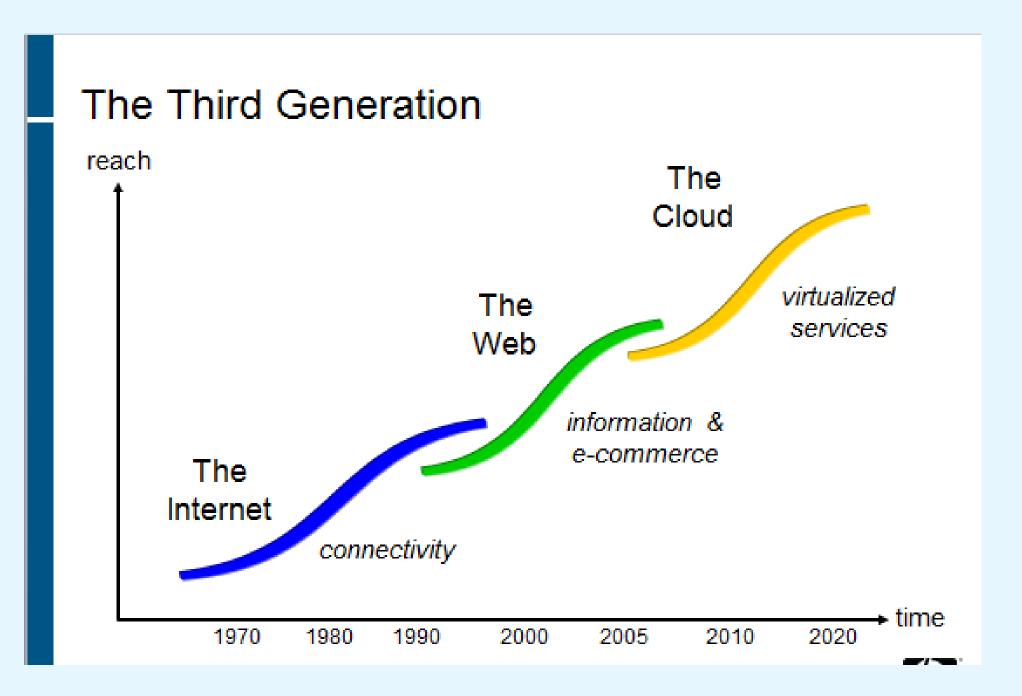




What is the Cloud?

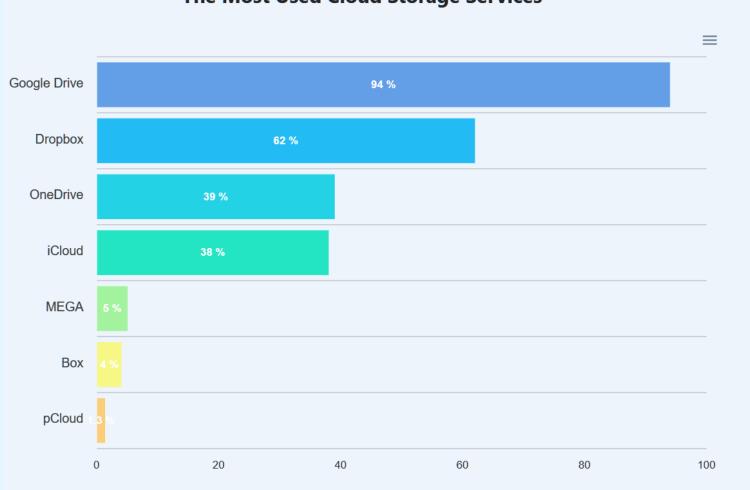






The Cloud

The Most Used Cloud Storage Services



26 Cloud Computing Statistics, Facts & Trends for 2023 (cloudwards.net)



Doug Austin, 4/20/23 https://ediscoverytoday.com/2023/04/20/2023-internet-minute-infographic-by-ediscovery-today-and-ltmg-ediscovery-trends/

Cloud Confusion

One in five Americans (22 percent) admit that they've **pretended to know what the cloud is** or how it works.



When asked what "the cloud" is, a majority responded it's either an actual cloud (specifically a "fluffy white thing"), the sky or something related to the weather (29 percent).

51% said stormy weather would interfere with their cloud computing

Back-in-the-Day

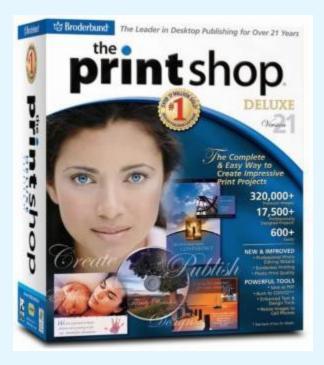
Your Computer

- Hard drive (C: drive)
- Purchase programs
- Install on HD
- Create docs
- Edited photos
- Used web to search / send e-mails....



Programs/Apps on Your HD









Tied to Your Computer

- Programs / Data / Photos...
- Couldn't access from another device or computer





We Started Becoming Mobile

- Save content to storage devices
- Take device to compatible computer
- Open and use content











Who, What, Where is the Cloud

What is the Cloud?

- What is the cloud?
- Where is the cloud?
- Are we in the cloud now?
- These are all questions you've probably heard or even asked yourself
- It is storing and accessing data and programs over the Internet instead of your computer's hard drive

What is the Cloud?

- The "cloud" is a symbol for the internet
- The term "cloud computing" has been around since 1977 when a cloud was used to represent a connection to the Internet outside computers
- You know it's there; you just can't see inside it, much like a real cloud in the sky



Why Use the Cloud

- It's convenient
- It's reliable
- We can access our data from any device with an Internet connection
- Can share photos, documents, etc.
- Effective backup solution

Why Use the Cloud

- It's convenient
- It's reliable
- We can access our data from any device with an Internet connection
- Can share photos, documents, etc.
- Effective backup solution



Cloud Computing

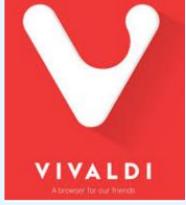
Having secure access to all your applications and data from any network device

















The Cloud

- Since 2020, cloud computing has rapidly expanded
 - Users
 - Infrastructure
 - Spending
 - Development
- By 2025, world will store 200 zettabytes of data
- Half will be stored in the cloud
- A zettabyte is a billion terabytes (or a trillion gigabytes)
 - Each Google account = 15GB

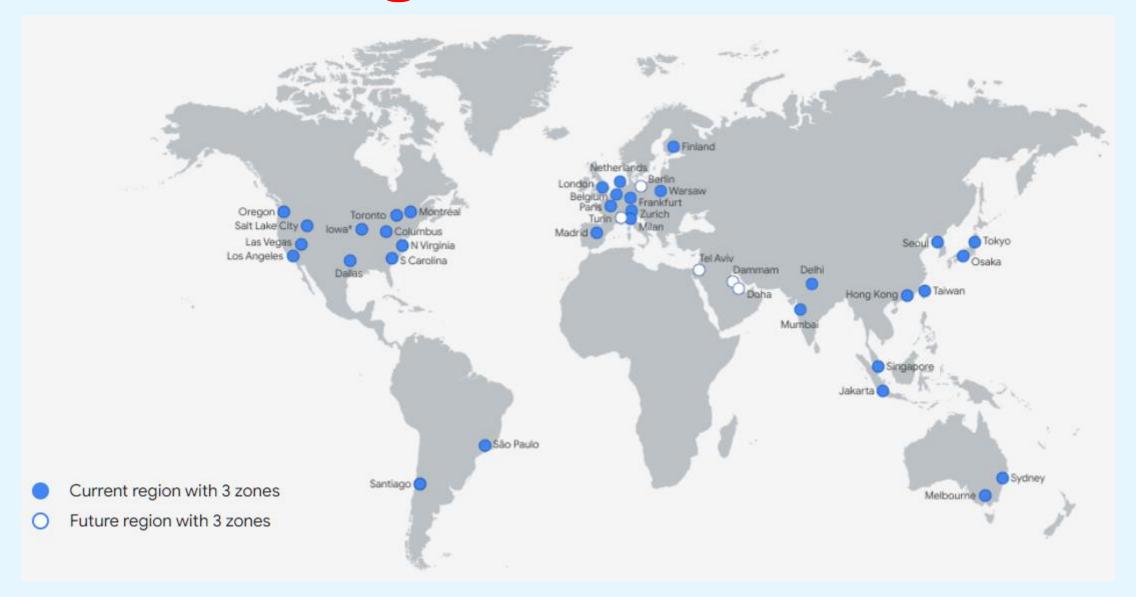
Where does everything live?

- Server farms, aka Data Centers, that provide massive storage and processing power
- A server is a computer that provides data or services to our devices (computers, tablets, phones, etc.) over the Internet

How do we access the Cloud?

- Wi-Fi
- At friends/neighbors/on vacation/city parks/libraries
- Starbucks
- McDonald's.....
- Nothing to forget (USB drive, etc.)
- External HD stays at home

Google Data Centers



Google Data Center





Google Data Center



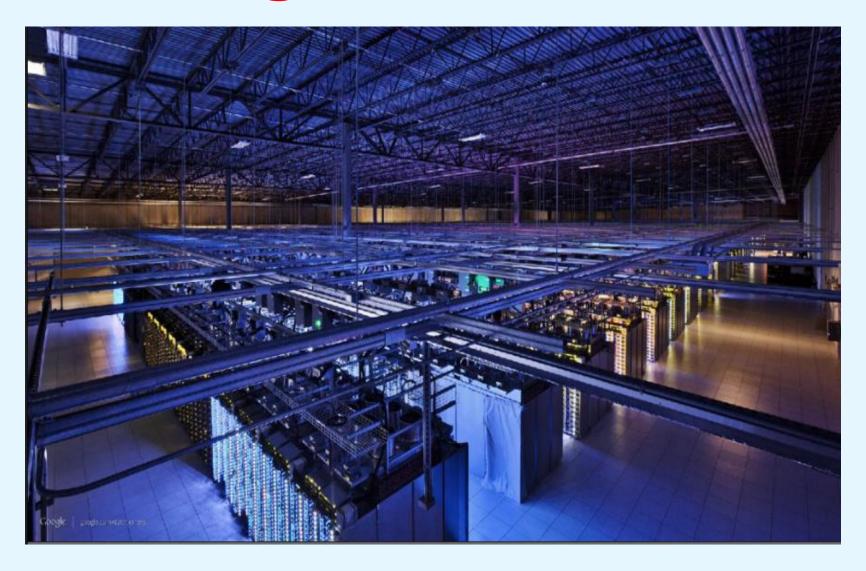






Tulsa World - https://tinyurl.com/3fey32y5

Google Data Center



Google's Shipping Container Data Center



Pros and Cons

Pros

- Data is encrypted
- You won't use all the space on your hard drive
- If your device crashes, you will still have access to your files
- It will take you a long time to use up all the space offered by most cloud providers
- Ease of access any time
 - Any device
 - Any place in the world

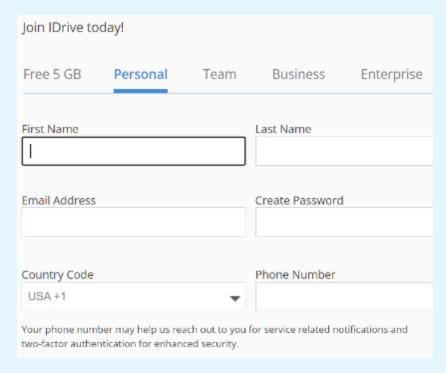
Cons

- Need an Internet connection
 - Fast and reliable
- Storage space comes at a cost
 - Few online services are fully free
- Security and privacy concerns with some providers

What do we need to access the Cloud? Is it safe?

What Do We Need to Access the Cloud?

- Internet connection
- Account
- Username & password / passphrase
- Agree to terms



What do we need to access the Cloud

- How old is your router?
- Where is it located?
- Try a Wi-Fi extender
- Research a mesh network
- Ethernet cable?
- Change out your ISP-provided equipment

Is the Cloud safe?

- Servers are usually located in warehouses with few on-site employees
- Files stored on cloud servers are encrypted (scrambled), which makes it harder for cybercriminals to access

What type of security do you need?

- Security app
- Firewall
- Router
- Strong Password / Passphrase

Companion Program

Malwarebytes

Password

- Strong password
 - Minimum 12+ characters
 - At least 1 capital letter, number, symbol
 - •NhrbAj#M2mgJgP10!
 - Don't use a dictionary word
- Use a Passphrase = more secure
 - Sentence or series of words, spaces OK
 - NTPCUG Meets 3rd Saturday

Password Programs

- Stores your login information for websites you use
- Log in automatically
- Encrypted password database
- One master password to remember
- Can generate random passwords







Two-Factor Authorization (2FA)

- Two-step security authorization process
- In addition to password / passphrase
 - Password & pin #
 - Fingerprint
 - Facial recognition (built-in camera)
 - Text message
 - Phone call

What can we do in the Cloud?

Apps

Office Suites
Social Networking

E-mail

Chat

Zoom

Back up

What can we share?

Documents

Spreadsheets

Presentations

Photos

Videos

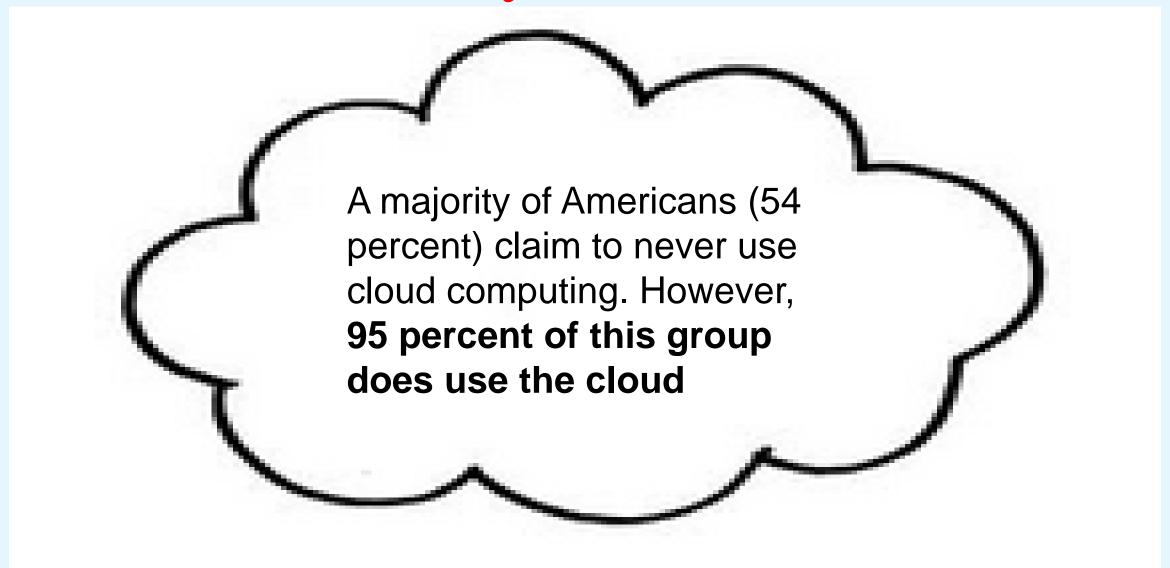
Calendars

Much more....

APCUG's Newsletter Contest

Online file sharing





Online banking

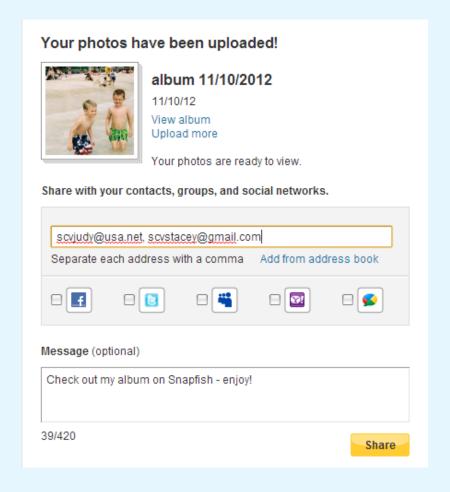


Online shopping

Social networking (Facebook, Twitter, etc.)



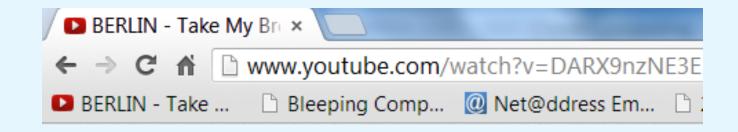
Sharing photos online



Online Games - Pogo

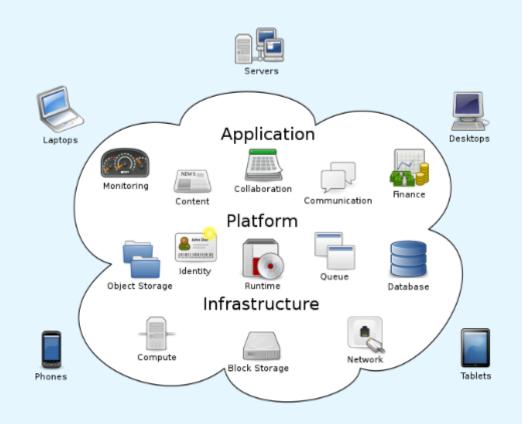


- Listen to Music
 - Pandora Internet Radio
 - Spotify All the music, all the time
 - https://play.google.com/music/listen
 - YouTube
 - Favorite Song



Today's Devices Can Link Together Via the Cloud

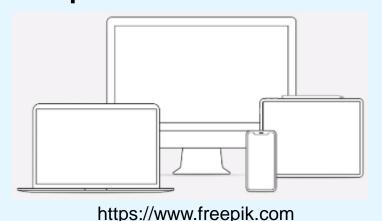
- Smartphones
- Tablets
- Desktops
- Laptops
- Cameras
- Printers



Synchronize your data

- Allows you to access a file, folder, or directory across different devices
- Create it on your computer
- Visit a friend and collaborate with him/her to update it
- Access it on your phone to show another person







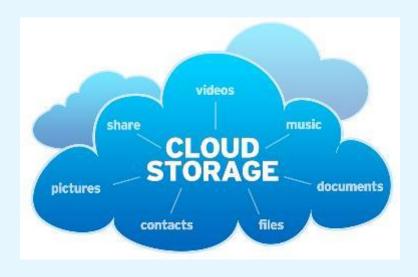
What is Storage in the Cloud?

Redundant back-up of your important files/data/photos, etc.









What is Storage in the Cloud?



Chromebooks

- Are all about the cloud
- Designed primarily to use when connected to the Internet
- Google's Chrome OS
- Don't need security software
- Automatically checks for and applies security updates

Chromebooks

- Use Google Docs
- Can access them directly from Chromebook
- Can work off-line and save to USB drive
- School districts use Chromebooks for students and staff

Backup / Storage in the Cloud

- External Hard Drive
- DVDs
- Redundant = Cloud
- Data stored in multiple locations
 - Protected Password
 - Encrypted
 - Access anywhere / anytime
- Latest version v. many versions
- Free v. Paid

Backup / Storage in the Cloud

FREE

- •Google Drive 15GB
- iCloud 5GB
- Amazon Prime 5GB
- Amazon Prime Photos Unlimited
- Dropbox 2GB
- iDrive 5GB

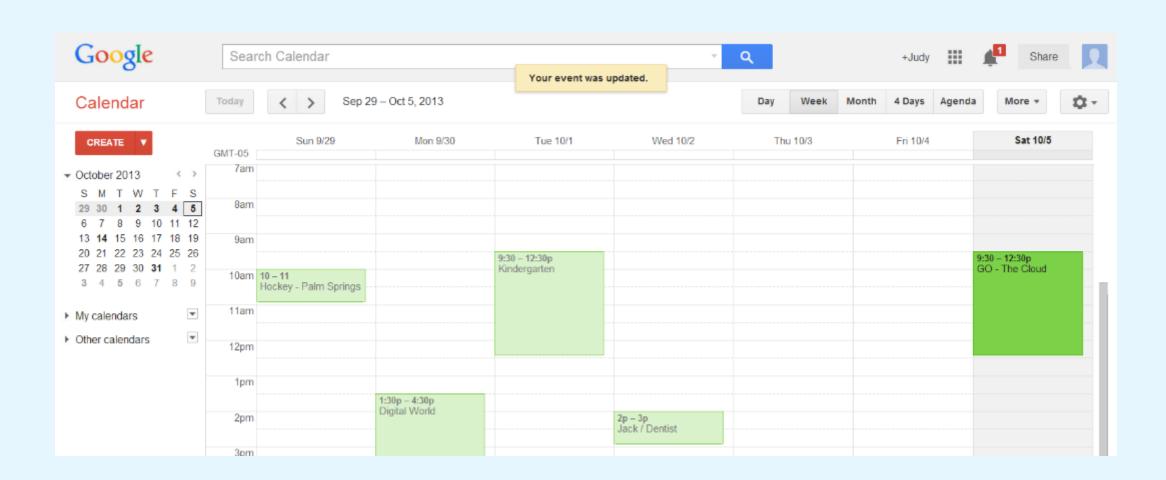
Backup / Storage in the Cloud

PAY

- Office 365 1TB \$69.99 / \$99.99 year
- Google Drive 100GB \$2/month
- Amazon Prime 1TB \$60/year
- iCloud 50GB \$1/month
- Dropbox 100GB \$10/month
- iDrive 2TB \$59/year

Organize Your Life in the Cloud

Google Calendar



Evernote

- Capture anything
 - Save ideas, things you like, things you hear, and things you see
- Access anywhere
 - Works with nearly every computer, phone and mobile device
- Find things fast
 - Search by keyword, tag or even printed and handwritten text inside images

EVERNOTE

Evernote



Evernote Stuff November 2017

https://www.theverge.com/2017/9/6/1621556 2/evernote-app-organize-how-to-usemaximum-productivity

La Verne November Meeting

Find Lost Items https://www.komando.com/tips/426076/spo nsored-new-tech-helps-you-find-your-lost-

WINDOWS 10 FALL Update

11/4/17

https://www.groovypost.com/howto/usingcortana-pick-up-where-i-left-off-windows-10-feature/

APCUG - Social Media Linnks



The PC Users Group of Connecticut

April 13 at 12:07pm · 🚱

The PCUG of CT - Updated Computers/Technology

https://www.facebook.com/ThePcUsersGroupOfConnecticut/



Boca Raton Computer Society, Inc. added an event.

April 24 at 11:00am · 🚷

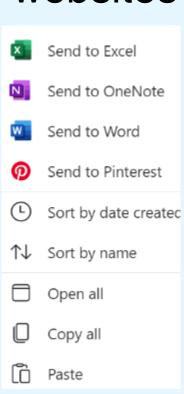
westchester

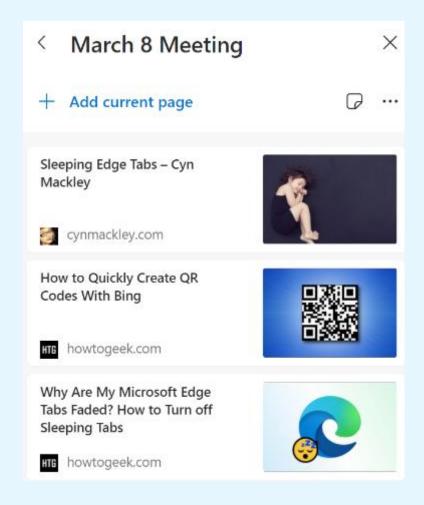
Boca Raton Computer Society
Non-Profit Organization

Edge Collections

- Helps you keep track of your ideas on the web
 - Collecting notes for research
 - Favorite shopping websites
 - Planning a trip







- Gmail
- Yahoo / Rocketmail
- Hotmail / Outlook
- iCloud mail













Google Meet



- GoTo Meeting
- Microsoft Teams
- Skype



- Web Ex
- Zoom.us











- Google Voice
 - Choose own number
 - Good for User Groups
 - Readable text voicemail via E-mail



Streaming with the Cloud Playing Games in the Cloud Social Media is in the Cloud

Streaming with the Cloud

- How long has it been since you have been to Blockbuster?
- Do you still have your cassette player?
- With the power of the Cloud, we are streaming
 - Video into our devices
 - Watching YouTube videos on our TVs
 - Attending lectures

Streaming with the Cloud

- Who hasn't watched...
 - Netflix
 - Prime Video
 - Hulu
 - Apple TV
 - Disney+
 - Roku Discovery+
 - Locast to cut the cord and watch local channels

Streaming with the Cloud

- No one wants to experience a lag in their streaming
- Cloud computing allows companies to ensure highest viewing quality for consumers
- Cloud technology will continue to improve our streaming experience

Playing Games in the Cloud

Play online board games with Tabletop Simulator on

Steam







Reading in the Cloud

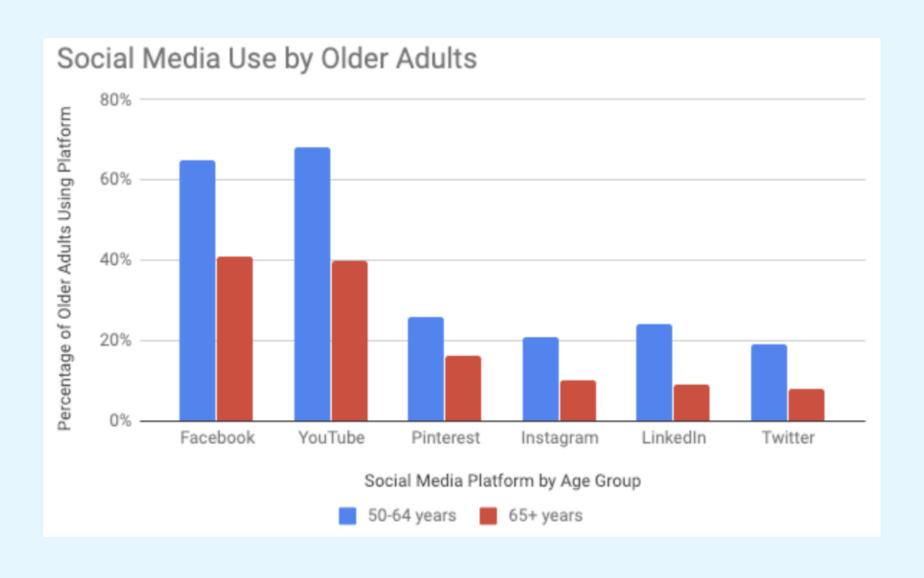
- Are you a fan of reading books with an eReader, your tablet or phone?
- There are many apps for reading eBooks in the Cloud via the Internet
- Use Calibre to manage your eBooks
- Access and sync your content from any device with
 - Google Drive OneDrive Dropbox

Social Media – it's in the Cloud

- Facebook
- YouTube
- Twitter
- Instagram
- Pinterest
- Nextdoor

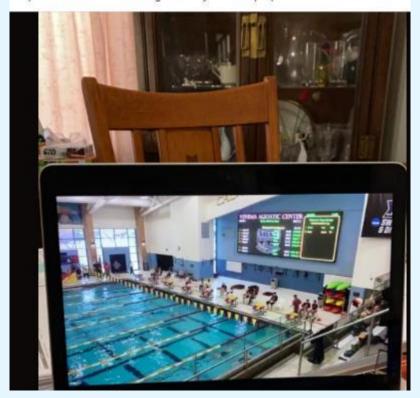


Social Media – it's in the Cloud



Social Media - Facebook

Yep this what I will be looking at all day on the laptop!







Social Media – Pinterest

Pinterest

Today

Explore

Q Search for easy dinners, fashion, etc.

Log in

Sign up

Follow



Dennis Fuerst

16 Followers • **5** Following







Social Media – Instagram **Sharing Photos**





westranchhockey • Follow



westranchhockey. committed to play for the Matadors. The 6'3" 175lb goalie was a standout for the start up West Ranch Wildcats Hockey team in the LA Kings High School Hockey League. Jack was featured as the LA Kings Player of the Week several times and lead the Wildcats to the playoffs each year he was on the squad. Jack brings great size and work ethic to the Matadors









45 likes

SEPTEMBER 2, 2018

Social Media – Twitter

Abby Stokes @abbystokes Oct 22, 2015

Battery saving tips for smartphones + tablets + portable battery charger recos -> tinyurl.com/owxwzbk #techtips



Abby Stokes @abbystokes · May 6, 2015
There's still time to shop! 5 TECH GIFTS FOR MOTHER'S DAY -> tinyurl.com/oanhbqv #mothersdaygiftidea







Social Media - Nextdoor

FYI #BobCatFire Evacuation
Orders & Warning

BOBCAT FIRE EVACUATION WARNING



Deputy Sheriff, PIO #LASD Joana Warren



Deputy Tracy Koerner Public Agency Person 1

Hair: white? ball cap, lightish, reddish hair, beard

Top: Greyshirt

Bottom: khaki shorts

Shoes: unk Age: 30

Sex: m

Race: Caucasian Build: medium

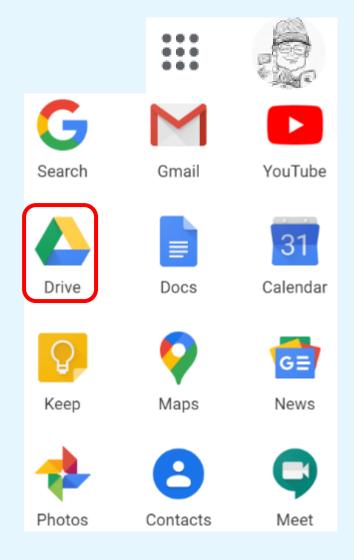
Other: carrying some type of clipboard, constantly typing on phone



Google in the Cloud

Using Google in the Cloud

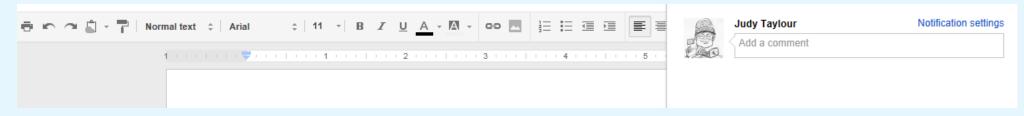
Access via Gmail account / Drive



Using Google in the Cloud

- Docs create a document, spreadsheet, slide, forms, drawings
- Share a file/folder with someone
- Calendar
- Google Photos
- Create notes and reminders with Google Keep

Google Docs

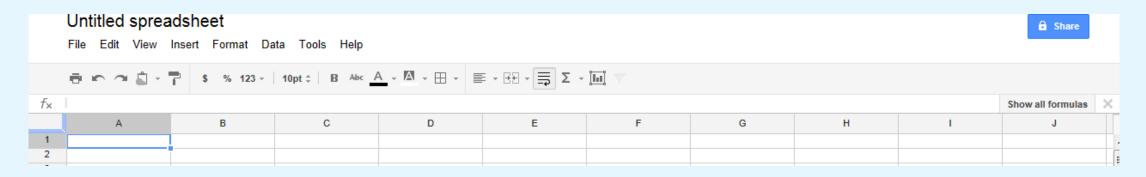


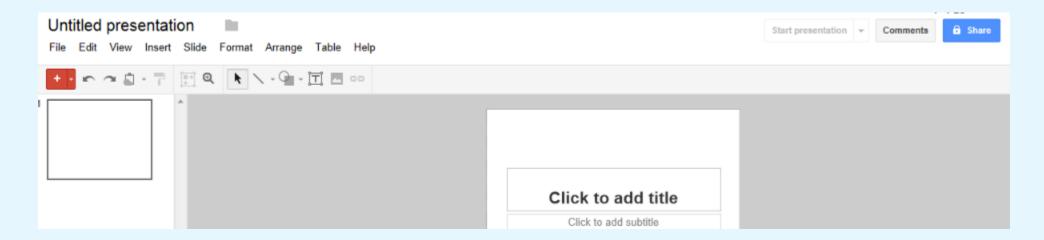
Comments

Share

Comments

Google Sheets - Slides





The Cloud and AI

- Al in Cloud computing still in early stages
- Individuals increasingly turning to Cloud to store and manage data
- Easy access from anywhere, any time
- Cloud-based AI systems can learn and evolve over time
- Becoming more effective at processing data
- Al can help improve security by identifying potential threats and taking action to mitigate them

Cloud Computing In Education

- Quickly becoming the norm
- Chromebooks + Google Docs
- Flexible, cost-effective, improve communication and collaboration, store data
- Cloud-based learning allow teachers to create and deliver course content online
- Can store student records, grades, and other sensitive data

Cloud Computing In Healthcare

- Playing an increasingly important role in healthcare industry
- Store and manage data = no more paper folders and files
- Apps and services are online
- Improve patient care
- Physicians have better access to data and analytics
- Can save money on hardware and IT costs

- Is all about the Cloud
- Huge amount of data needs to be stored and processed – Coud is the perfect platform
- TechJury.net approximately 15.14 billion connected IoT devices as of 2023
- Equivalent to just under twice the total number of people worldwide (eight billion)
- 2.5 IoT devices per person on the planet

- 2023 How many IoT devices per person
- 13.4 in North America
- 3.1 in South America
- 9.4 in Western Europe
- 4.0 in Eastern and Central Europe
- 1.5 in Africa and the Middle East

Largest Users

- Farmers
- Healthcare
- Energy
- Finance
- Manufacturing

After Presentation Discussion

- We learn from each other...
- Members Helping Members = what are they using
 - Security programs
 - Password programs
 - Backing up
 - Favorite cloud apps
 - Home Automation
 - ??

The Future of Computing is Here, in the Cloud!

