

# Tech Talks

# Applications & The Cloud

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Center for Learning in Retirement

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[Seniortechadvisor.com](http://Seniortechadvisor.com)

# What we'll cover in 6 weeks

- 1) ~~Computers & Operating Systems~~
- 2) Applications & The Cloud
- 3) The Internet & The Web
- 4) Social Media
- 5) Security & Privacy
- 6) Entertainment & IoT

# Software. What is it?

- Computer software, or simply software, is a part of a computer system that consists of data or computer instructions, in contrast to the physical hardware - software is usually written in high-level programming languages
- Software examples include application software, system software, and malicious software or malware

# Today's Topic

## Applications & The Cloud

*But before we begin, a brief history lesson about 'software'*

# Where did Software come from?

- Ada wrote the first piece of software (an algorithm) in the 19<sup>th</sup> century for Babbage's Analytical Engine
- Alan Turing wrote his theory about software in 1935 ([Computable numbers with an application to the Entscheidungsproblem](#)\*)
- Programs stored in memory of digital computers became possible after 1948 – [very limited](#)

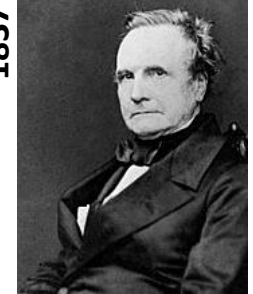
\*[Entscheidungsproblem](#) – (German for "decision problem") is a challenge posed by [David Hilbert](#) in 1928. The problem asks for an [algorithm](#) that takes as input a statement of a [first-order logic](#) and answers "Yes" or "No" according to whether the statement is *universally valid*.

1843



Ada, Countess of Lovelace, publishes "Notes" on Babbage's Analytical Engine.

1837



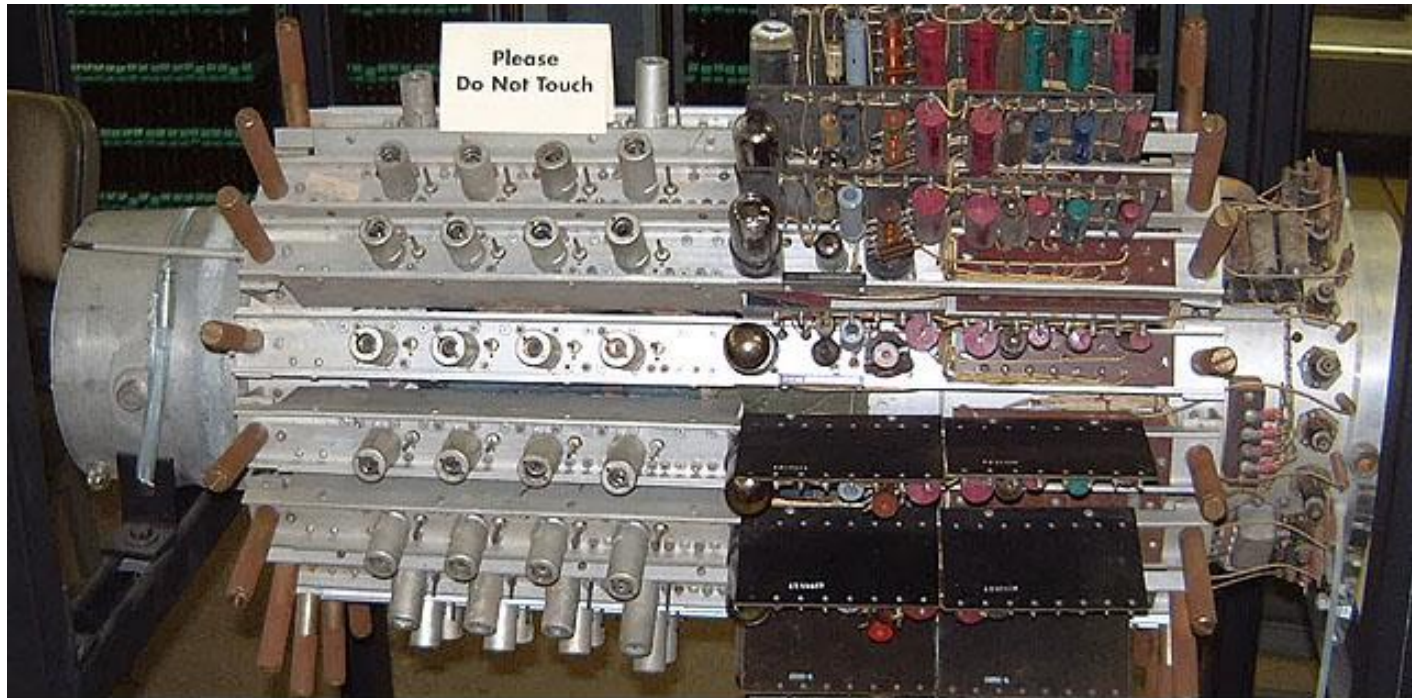
Charles Babbage credited with inventing the first [mechanical computer](#)

1937



Alan Turing publishes "On Computable Numbers," describing a universal computer.

# Mercury (delay line) memory of UNIVAC I (1951)



Operates at 104 °F  
Started with 16 delay lines each holding 560 bits (about 9000 bits total)  
The memory subsystem required its own 'room' to operate

Memory Card  
Class 10 1024 GB

1tb Memory Card 1024gb tf Card Micro sdxc sd Card Holder sd Card Reader :  
Card Flash Memory Card  
★★★★☆ 33  
\$19.99 ~~49.99~~  
prime FREE One-Day  
Get it Tomorrow, Oct 22  
Only 2 left in stock - order soon.

If a byte is 8 bits, and this micro-SD card holds 1024 terabytes, that's a 11,428,571,328.57% increase!

# Where did Software come from?

- The advent of ‘personal computer’ software made the hardware ‘useful’, starting with the BASIC interpreter written by Gates and Allen for the Altair 8800, allowing users to create their own programs – this effort launched the PC software industry! The year was 1975...
- 1979 - [Dan Bricklin](#) - “The Father of the Spreadsheet” – co-invented VisiCalc with [Bob Frankston](#), available on Tandy TRS-80... for \$100 – awarded a patent for [VisiCalc](#) in 1981

1975



Paul Allen and Bill Gates write BASIC for Altair, form Microsoft.

1979



Dan Bricklin  
Creates  
VisiCalc

# Software Yesterday and Today

- When network speeds were slow, software was sold on 'physical media' – floppy disc, CD, DVD
- When network speeds improved, it was more cost effective to have users download software 'over the Internet'
- Today, software publishers are moving to a rent vs. buy 'subscription' model which has 2 primary benefits:
  - Supplier – increased revenue since subscriptions need to be renewed and distribution costs are reduced
  - End user – new versions and updates available to subscribers immediately



# Apps

- Aka Software, Programs, Applications

# Application Software ([source](#))

An **application program** (app) is a [computer program](#) designed to perform a group of coordinated functions, tasks, or activities for the benefit of the user. Examples of an application include a [word processor](#), a [spreadsheet](#), an [accounting application](#), a [web browser](#), a [media player](#), a [flight simulator](#), a [console game](#) or a [photo editor](#). The [collective noun](#) **application software** refers to all applications collectively. This contrasts with [system software](#), which is mainly involved with running the computer.

Applications may be [bundled](#) with the computer and its system software or published separately, and may be coded as [proprietary](#) or [open-source](#).

## Top paid/proprietary apps for PCs and laptops

- [Microsoft Office 365](#) – Microsoft's office application [subscription](#)
- [Adobe Creative Cloud](#) – everything Adobe [subscription](#)
- [Carbonite](#) – PC backup software
- [Bitdefender Antivirus Plus 2020](#) – antivirus
- [Malwarebytes](#) (paid version) – malware detection

# Top 10(+) 'free' apps for PCs and laptops

- [LibreOffice](#) or [OpenOffice](#) – office applications
- [Audacity](#) – audio editor
- [Google Chrome](#) or [Firefox](#) - browsers
- [VLC Player](#) – media player
- [GIMP](#) – photo editor
- [Adobe Reader](#) – PDF reader
- [7-Zip](#) – file archiver
- [Kaspersky Free Antivirus](#) - antivirus
- [Malwarebytes](#) (free version) – malware detection
- [OpenShot](#) – video editor
- Plus [OBS Studio](#) – video recording and live streaming

# Top 10 'free' apps for tablets and smartphones

- [Color Note](#) – notepad
- [Google Mail](#) (Gmail) – e-mail
- [CamScanner](#) – document scanner
- [Google Maps](#) – GPS navigation
- [Google Hangouts](#) – Google chat and phone
- [Total Commander](#) – file manager
- [Today Weather](#) – weather
- [Pandora](#) – music
- [WhatsApp](#) – worldwide chat and voice communication
- [SwiftKey](#) – alternate keyboard
  
- Another source: [Best Android apps of 2019](#)

# Top 10 'free' apps for Chromebooks

- (Microsoft) [Office Online](#) – cloud based Office apps
- [Pocket](#) – content syncing service
- [Overdrive](#) and [RB Digital](#) – eBook and audio book reader
- [Evernote](#) – cloud note-taking
- [Roboform](#) – (free version) password manager
- [Kindle Cloud Reader](#) – eBook reader
- [Weather.com](#) – weather
- [Pandora](#) – music
- [Polarr](#) – photo editor
- [VLC for Chrome OS](#) – media player
  
- Another source: [Best Chrome Apps](#)

# Apps for your Smartphone

- 'Essential' Apps (top 10)

	<u>Apple</u>	<u>Android</u>
• <b>App Store</b>	Apple App Store	(Google) Play Store
• <b>Email</b>	(Apple) Mail*	Gmail
• <b>Contact list</b>	(Apple) Contacts*	(Google) Contacts
• <b>Browser</b>	Safari, <a href="#">Chrome</a>	Chrome
• <b>Weather</b>	(Apple) Weather*	<a href="#">The Weather Channel</a>
• <b>Music</b>	(Apple) Music*	Pandora
• <b>Maps</b>	(Apple) Maps*	(Google) Maps
• <b>Calendar</b>	(Apple) Calendar*	(Google) Calendar
• <b>Photos</b>	(Apple) Photos*	(Google) Photos
• <b>Voice Assistant</b>	Siri*	Google Assistant

# Apps for your Smartphone (continued)

- 'Nice to Have' Apps (top 10)

	<u>Apple</u>	<u>Android</u>
• <b>Note-taker</b>	(Apple) iNote, <a href="#">EverNote</a>	<a href="#">ColorNote</a> , <a href="#">Evernote</a>
• <b>Document Scanner</b>	<a href="#">CamScanner</a>	<a href="#">CamScanner</a>
• <b>File Manager +</b>	(Apple) Files*	ES File Explorer
• <b>Video-calling*</b>	(Apple) FaceTime*	(Google) Hangouts
• <b>Wireless File Transfer</b>	<a href="#">Air Transfer</a>	<a href="#">WiFi File Transfer</a>
• <b>Social Media</b>	FaceBook, Instagram, YouTube, Twitter, LinkedIn...	
• <b>Hands-Free Auto</b>	(Apple) <a href="#">CarPlay</a> **	<a href="#">Android Auto</a>
• <b>VLC Media Player</b>	<a href="#">VLC Media Player</a>	<a href="#">VLC Media Player</a> *
• <b>Keyboard Mod</b>	<a href="#">SwiftKey</a>	<a href="#">Swype</a> (default)
• <b>Level</b>	<a href="#">Bubble Level +</a>	<a href="#">Clinometer</a>



# The Cloud ([source](#))



# What is the cloud?

The cloud refers to software and services that run on the Internet instead of locally on your computer. Apple iCloud, Dropbox, Netflix, Google Drive, Microsoft Office 365, Adobe Creative Cloud, Gmail – these are all examples of cloud services, and there are many, many more.

# Where is the cloud?

The **cloud** consists of large groups of remote servers that are networked to provide centralized data storage, and online access to computer services or resources. Most of us participate in what's called a "public cloud". These cloud services are rendered over a network that is open for public use. Public cloud service providers like Amazon AWS, Microsoft and Google own and operate the infrastructure at their [data center](#)(s) and access is generally via the Internet.

# Is the cloud secure – can I trust it?

Public Clouds...

*Are hardened thru continual hacking attempts*

*Attract the best security people available*

*Get the latest security gear due to economies of scale*

Heck, yeah! Weighing all the benefits – low cost, good security and reliability, and access to data and services anywhere, anytime!

## What Cloud services do I have access to?

We'll talk about Cloud storage, back-up, apps and utilities – read on:

[Cloud Storage](#) – a model of data storage where the digital data is stored in logical pools, the physical storage spans multiple servers (and often locations), and the physical environment is typically owned and managed by a [hosting](#) company.

Examples: [Amazon AWS](#), [DropBox](#), [Google Drive](#), [Microsoft OneDrive](#), [iCloud](#)... [Which is right for me?](#)

**Cloud Back-Up** – a service that provides users with a system for the [backup](#), storage, and recovery of [computer files](#). Examples: There are MANY, but my favorite right now is [Carbonite](#). You can find more information about Carbonite features [here](#). Suffice to say that Carbonite has saved our bacon a few times and is well worth the ~\$54/year we pay when renewing under the 3-year [contract](#) for their ‘Basic’ service level. As icing on the cake, Carbonite provides a [remote access](#) application that allows individual files to be downloaded to any computer using a web browser.

Comparison of online back-up

services: [http://en.wikipedia.org/wiki/Comparison\\_of\\_online\\_backup\\_services](http://en.wikipedia.org/wiki/Comparison_of_online_backup_services)

**Cloud Apps** (generically called ‘[Cloud Computing](#)’) – infrastructure is off-site (provided by a third-party) and accessed via the Internet, users can connect from anywhere. Maintenance of **cloud computing applications** is easier, because applications do not need to be installed on each user’s computer and can be accessed anywhere, anytime. Examples: [Google Docs](#), Microsoft [Outlook.com](#) (both free) – and many, many more thanks to the introduction of the Google [ChromeBook](#)...

Why aren’t Microsoft [Office 365](#), and Adobe [Creative Cloud](#) on the list? Glad you asked...

## Cloud ‘Utilities’

Books – Kindle [Cloud Reader](#), [OverDrive](#), [Hoopla](#)  
Music – [Pandora](#), [Spotify](#)  
Video – [NetFlix](#), [Hulu Plus](#), [Amazon Instant Video](#)  
Printers – [Google Cloud Print](#)  
FAX – [RingCentral](#), [faxZERO](#), and [others](#)  
Converters – [CloudConvert.org](#)  
YouTube Downloader - [Apowersoft](#)

## Password Managers – [RoboForm](#), [Dashlane](#), [LastPass](#), [KeePass](#), and [more](#)

What is a password manager? It’s a program that keeps your passwords and other logon information in an encrypted database. That way, you only have to remember one password–the one that opens the password manager.

But are Password Managers [safe](#)? Good question. But without one, you’re going to use the same password over and over again, and pick passwords that are easy to remember and, therefore, easy to guess.

Here's what [Lincoln Spector](#) at [PCWorld](#) has to say about it:

“I strongly recommend against any cloud-based password management service—especially if that service can access your database ([LastPass security issue](#)). If the service can recover your forgotten password manager's password, or if it can turn over your passwords to your next of kin, that company has access to your passwords, and can be hacked.

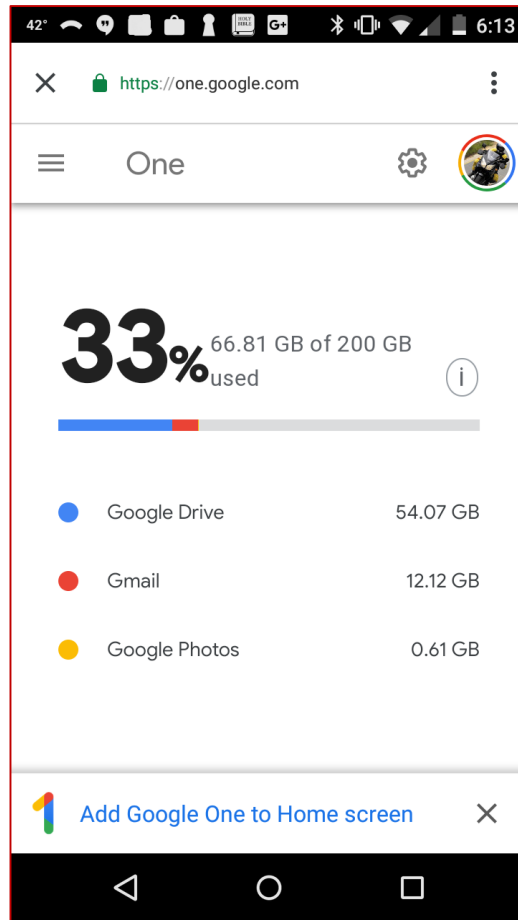
Instead, use a local program on your computer ([RoboForm – free version](#)). That way, the encryption stays close to home. It's not on the Internet, and even if someone did get ahold of your data file, it would be useless without the password.”

Banking, Credit Card transaction processing...

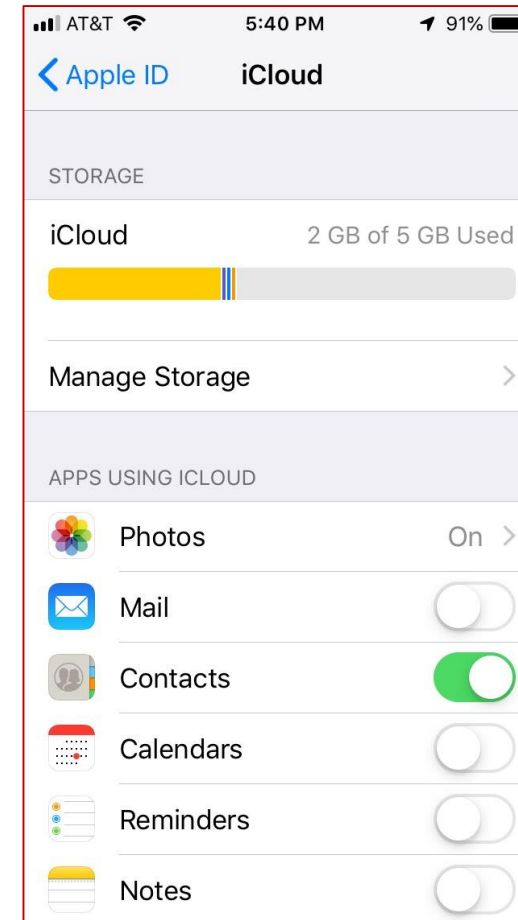
Closing Comments: In case it's not apparent, the 'cloud' is where computing (and even entertainment to some degree) is headed. Complex operating systems and the high performance platforms required to run them are expensive and must be maintained. Purchased applications are expensive and become obsolete quickly. By choosing wisely, and investing some time in learning how to use the cloud effectively, you'll save money with little loss of functionality. For many (but not all) it's a journey worth taking...

# Default cloud services you're probably already using

Google  
Android  
\$1.99/mth  
For 100GB  
\$9.99/mth  
For 1TB  
(15GB free)



Apple  
iOS  
\$.99/mth  
For 50GB  
\$2.99/mth  
For 200gb  
\$9.99/mth  
For 1TB  
(5GB free)



# Other useful articles:

[My PC backup dilemma](#)

[What's the best way to back up your data? Physical back-up or the 'cloud'?](#)

[RoboForm 7 – what is it and why do I care?](#)

[Free Microsoft Office! Check out Office Web Apps...](#)

[Convert your files in the Cloud – cloudconvert.org \(beta\)](#)

[Google Cloud Print – a cool new capability from Google](#)

[Microsoft Office Apps for iPad – I'm not so sure...](#)

[Adobe's Creative Cloud – a really good idea!](#)

[It's Time to Consider a ChromeBook](#)

[ChromeBook Power Tips – a PCWorld article](#)