

Slide 1



**The Current State
Of Computing**

**Oct 14, 2021
Mike Quinn**

**SUMMERSET
Computer
Club**


computerclub.summerset2.org

The image is a collage of various elements. At the top left, there is a blue login form with fields for 'username' and 'password' (represented by six asterisks) and a hand cursor icon. Below this is a globe of the Earth. In the center, a laptop is open, displaying a globe on its screen. To the right of the laptop is a cityscape with several tall buildings. At the bottom right, there is a smartphone and a tablet. The text 'The Current State Of Computing' is in a light blue box at the top right. 'Oct 14, 2021 Mike Quinn' is in a grey box in the middle right. 'SUMMERSET Computer Club' is in a white box with a blue shadow at the bottom right. 'computerclub.summerset2.org' is in a blue box at the bottom left.

Topics

- **Hardware**
- **Windows 11**
- **Macs**
- **Google/Chrome**
- **Smartphones**
- **Quantum Computing**
- **Viruses**
- **AirTags**





Windows 11

- <https://aka.ms/GetPCHealthCheckApp>
- **TPM 2.0**
 - **Bios – Intel PTT, AMD PSP fTPM, Security Device**
- **UEFI**
- **Secure Boot**
- **Approved processor**
- **New interface (more “Mac-like”)**
- **Android app integration (Microsoft Store, coming soon)**
- **Better virtual desktop support**
- **Better HDR support in Games**
- **Voice typing and voice commands everywhere**
- **Windows 10 support ends in 2025**

TPM = Trusted Platform Module – exists on most recent machines, but probably needs to be “turned on” in the Bios

Secure Boot = booting up into “signed” software – software from a trusted certificate authority similar to the way https:// websites are validated

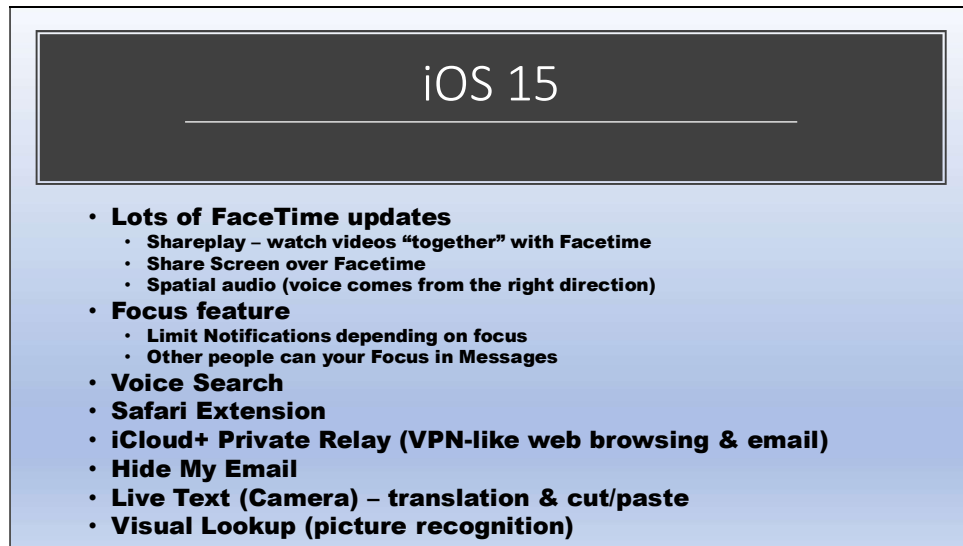
UEFI = Unified Extensible Firmware Interface – handoff protocol from bios to OS

Windows 11

- **Why I maybe shouldn't update just yet**
 - **Microsoft will be acting on feedback to tweak the user interface, lengthening your learning curve**
 - **Apps that won't work or won't work as well on Windows 11**
 - **Not as likely if you're just using basic Microsoft Apps like Office**
 - **Unexpected issues related to hardware compatibility**
 - **Performance issues on AMD chips (up to 15%)**



Slide 7



iOS 15

- **Lots of FaceTime updates**
 - Shareplay – watch videos “together” with Facetime
 - Share Screen over Facetime
 - Spatial audio (voice comes from the right direction)
- **Focus feature**
 - Limit Notifications depending on focus
 - Other people can your Focus in Messages
- **Voice Search**
- **Safari Extension**
- **iCloud+ Private Relay (VPN-like web browsing & email)**
- **Hide My Email**
- **Live Text (Camera) – translation & cut/paste**
- **Visual Lookup (picture recognition)**

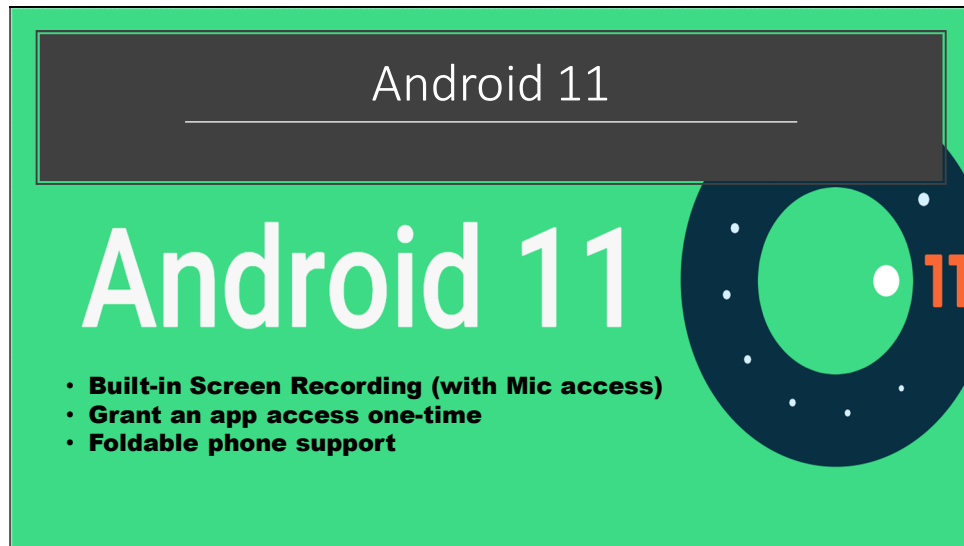
<https://www.apple.com/ios/ios-15/>

Update to Maps

Lots of Photo updates

Wallet can store IDs now

Health app updates

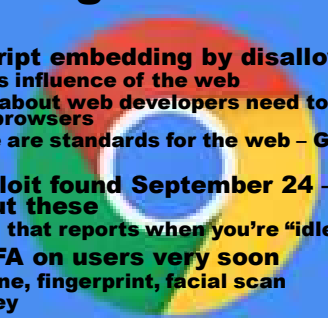


Nothing earth-shattering in Android 11 – basically an evolution

Foldable phone support = apps can get hinge angle to modify their display.

<https://www.techradar.com/news/android-11>

Google/Chrome



- **Breaking JavaScript embedding by disallowing it (Jan 22)**
 - Trying to bully it's influence of the web
 - Made comments about web developers need to test against early versions of web browsers
 - This is why there are standards for the web – Google trying to do a runaround
- **11th zero-day exploit found September 24 – Google was not forthcoming about these**
 - Found in new API that reports when you're "idle"
- **Google forcing 2FA on users very soon**
 - Code sent to phone, fingerprint, facial scan
 - GA, Authy, Yubikey
- **"Search Term" Warrants**

<https://www.the-sun.com/tech/3789783/warning-to-delete-google-chrome-surveillance-risk/>

https://www.theregister.com/2021/10/04/chrome_breaks_web/

<https://www.komando.com/security-privacy/enable-google-2fa/810928/>

Web developers and standards groups are pretty upset about the JavaScript breakage.

Smartphones - Iphone

- **Iphone 13**
 - **128, 256 or 512 GB**
 - **Camera can go macro at 2 cm**
 - **Pro model gets 120 Hz Display with Dynamic Refresh**
 - **Pro model gets 3x Optical zoom**
 - **Iphone 12 has 2-2.5 optical zoom**
 - **Better optical stabilization**
 - **Night mode**
 - **Cinematic mode for video (better autofocus)**
 - **Up to 1 TB storage (2x previous models)**
 - **Brighter display**
 - **Battery lasts longer**



Smartphones - Android

- **Samsung S21 Ultra (out now)**
 - **Android 11**
 - **108 MP main camera, dual telephoto lenses (54 MP for lesser models)**
 - **So-so battery (9 hours 53 minutes)**
 - **S-Pen support**
- **Samsung S22 Ultra (soon - rumors)**
 - **Better gaming display/hardware**
 - **Big Battery**
 - **S-Pen dock**



<https://www.tomsguide.com/opinion/samsung-galaxy-s22-ultra-leaks-tip-a-phone-thats-in-its-own-league>

Smartphones - Android

- **Pixel Pro 6 (out soon)**
 - **Android 12**
 - **More performance**
 - **Adaptive Battery**
 - **Pro = 120Hz down to 10 Hz**
 - **4x optical, bigger sensor,**
 - **50 MP wide and ultra wide**



Quantum Computing

- **Basic unit of data = qubit = quantum bit (not binary)**
 - Still a 0 or 1, but can be both at the same time or in transition
 - Allows for many answers to be tried at once
 - This will be an issue for current cryptograph eventually
- **Mostly has to be done near absolute-0 temperature**
- **Room Temperature versions currently being investigated**
- **3 minutes = 10,000 years (Google claim)**
- **Probably still 5-10 years from any practical uses**

Googles Quantum Computer paper:

<https://www.nature.com/articles/s41586-019-1666-5.pdf>

Viruses

- **Ransomware**
 - **Backup, backup, backup**
- **Crypto Miners**
- **Nvidia Software – update it**
- **IoT (Internet of Things)**
 - **Be very careful with these**
- **Use good Antivirus, AntiMalware**
 - **I like Defender and Malwarebytes for Windows**
 - **Norton 360 with LifeLock Select has good reviews**
 - **Norton 360 for MacOS and iOS**
 - **Norton Mobile Security for Android**
- **Viruses against infrastructure**

<https://blogs.innovanathinklabs.com/cyber-threat-latest-computer-viruses/>
Antivirus is less useful on MacOS, iOS, and Android

AirTags

- **Great product to find stuff**
- **Can also be misused to track people**
- **iPhone will tell you when there's an AirTag nearby (but only if you're moving and the AirTag is moving with you)**
- **Bluetooth Scanner**
 - **Use a Bluetooth scanner (LightBlue is a decent free android app, BLE Scanner for iPhone)**
 - **Will identify as an Apple device**
 - **"NFC Tools" will let you read owner's "Lost Tag" message if you can get near the AirTag**

Adding an AirTag to a static location near you isn't nearly as interesting as one that moves with you, which is why Apple doesn't bug you about every AirTag that it sees.