The Latest Thing …
September 2015

Apple

- Earlier today, Apple held its latest event in San Francisco.

Apple: Phones

- This year's versions of the iPhone were unveiled*: iPhone 6S* and *6S Plus*
    - Same display sizes as predecessors: 4.7" & 5.5".
    - 7000-series aluminum body, which is more resistant to bending.
    - Faster, more capable A9 processor.
    - 12MP rear camera capable of shooting 4K video.

Apple: Television

- A new version of *Apple TV* was revealed.
    - Apple TV is a set-top box that permits one to search for and play video from a number of sources, wired and wireless, to a TV.
    - It supports apps and game playing via *tvOS.*
    - Can be controlled via the remote or by Siri.
    - A8 processor.
    - Does not support 4K video.

Apple: Tablets

- A larger-sized tablet, the *iPad Pro* was introduced. ($799 – $1,079)
    - 12.9" display, as compared to the smaller 7.9" and 9.7" iPads.
    - A9X processor, 1.8x performance of predecessor.
    - Force Touch interface and a new stylus support more accurate input.
    - Stereo speakers, located on either side of device.
- The latest edition of the smallest iPad, the *iPad Mini 4* (7.9" display) was shown.
    - Basically, Apple crammed the innards of last year's *iPad Air 2* (9.7" display) into the smaller, Mini frame.

- Apple chose <u>not</u> to create (or, at least, not to reveal) the *iPad Air 3*, the much-anticipated successor to last year's popular iPad Air 2.
  - This could be due to the fact that the tablet market is in a slump right now – even Apple's share of the market – and Apple was fearful that a the iPad Air 3 would decrease sales of the iPad Pro.

Apple: Software

- *El Capitan*, the latest version of the OS X operating system for Macs, will be released September 30, 2015.
- *iOS 9*, the next operating system for iPod, iPhone, and iPad will be released September 16, 2015.
- The 2nd version of the Apple Watch operating system, *watchOS 2*, will be released September 16, 2015.
  - As in the previous version, there is a heavy emphasis on health-related apps.
  - The Watch can connect wirelessly to nearby health sensor devices.
- The biggest software buzz concerns some new features in iOS 9 that support multitasking (i.e., running two apps at the same time) and are designed for the iPad family of devices.
- *Split-view* and *Slide Over* – two apps running side-by-side; best when used in landscape orientation.
- *Picture-in-picture* – permits one to watch video in a small window while using another app.

Meanwhile, over at Android …

- Android Manufacturers also will release smartphones and tablets with new features.
  - Samsung is said to be readying an 18.4" tablet to steal the thunder of the 12.9" iPad Pro.
- Samsung and other Android manufacturers are expected to get behind the "M" version of Android (as yet unnamed) within the next few months.

Television

- 4K (or Ultra HD) TVs have the resolution of four HD TVs. The prices have dropped significantly and now are in the neighborhood of $1,000 for a 55" screen.
- Problem: the lack of 4K video content.
- OLED (Organic Light Emitting Diode) TVs will continue to get larger and drop in price.
    - A 55" OLED set now is under $2,000.
    - OLED TVs have more vibrant colors, blacker blacks, and lower power consumption.
    - Current OLED TVs are about 4.3mm thick, and LG recently demonstrated a model that is about 1mm thick (about as thick as a credit card).
- Some manufacturers have demonstrated 8K (or Full Ultra HD) TVs.
    - This is a resolution equal to four 4K TVs.
    - Some may make it to the marketplace within the next year, but the price probably will be greater than $25,000.
    - Few video cameras exist that can shoot 8K video, so almost no 8K content is available for these sets.
- As I predicted last year, curved-screen TVs are being pushed by the manufacturers.
- Also as I predicted, 3D TVs have gone the way of the 3D dinosaur.
- One I missed: I thought that wi-di (wireless display) TVs would be more common by now.

Computers

- Solid-state drives (SSDs) have improved in reliability, speed, and capacity.
    - At this time last year, prices were about 50¢/GB; one now can find prices around 35¢/GB.
    - New SSD technologies are coming online that should continue this trend.
    - SSDs are and will continue to be more expensive than hard drives, per GB.

- Like *Mavericks* and *Yosemite* before it, the upcoming OS X *El Capitan* will be a free upgrade for Mac computers.
- Computers
- Unlike *Windows 8/8.1*, *Windows 10* is a free upgrade, if you are upgrading from Windows 7, 8, or 8.1.
    - The upgrade must take place within one year of the Windows 10 release date of July 29, 2015.
    - Windows XP users are not eligible for the free upgrade. This probably is because XP computers are too old to run Windows 10 well, if at all.
- Computers
- Unlike Windows 8/8.1, Windows 10 has received a warm reception from users.
    - Could the free upgrade be a contributing factor?
    - All but gone is the *Metro* tiled interface.
    - The start button and its start menu are back in force.
    - Like Windows 8/8.1, Windows 10 boots up pretty quickly.
- Computer processors will continue to stress:
    - Lower power consumption
    - Modest speed improvements
- However, the processor manufacturers also are pushing these features:
    - Faster start-up times.
    - Wi-di monitor capabilities built into the processor.
- Last year, the reversible USB plug, known as USB-C, was just coming into play.
    - This year, Apple and several PC manufacturers have built it in their laptop computers.
    - On Apple's MacBook Air, a $79 adapter is needed to connect more than one device to the computer.

Lighting

- LED light bulbs are more energy efficient than compact fluorescent light (CFL) bulbs, and have dropped significantly in price.
    - One can find the LED bulbs for about $3-$4 / bulb.
    - A 60W equivalent LED uses about 11W.

- The estimated lifetime is about 20K hours of use.
- LED T8 fluorescent bulb replacements also are beginning to gain in popularity.
    - Current prices are about $12-$20/bulb.
    - The bulbs use 15W-20W of electricity.

The Internet of Things

- Something that will gain more ground this year is *the Internet of Things (IoT)*.
- According to Wikipedia:
    IoT is a network of physical objects or "things" embedded with electronics, software, sensors, and connectivity ... [this] allows objects to be sensed and controlled across existing network infrastructure.
- Some interesting examples of IoT:
    - A mousetrap that sends you an email or text when it has caught a mouse. (You can build a better mousetrap!)
    - Home trashcans that will remind you that tomorrow is trash day, and municipal trashcans that will let the city know when they need to be emptied.
    - The *Proteus ingestible pill sensor*, powered by contact with stomach fluids. Communicates a signal to a wearable patch device that indicates the time when you took your meds and the identity of the pill. The patch also can log heart rate, body position, and activity for the physician.
    - The *TrackR* is a device that can be attached to keys, purses, etc. If you lose it nearby, an app on your smartphone tells you how close you are to it. If you lose it far away, Crowd GPS is used so that the phones of other TrackR users "listen" to see if your TrackR is nearby them; if so, their smartphone tells yours where the lost item is.