



Consumer
Technology
Association™

CES 2019

Key Takeaways & Cool Concepts

Cheenu Seshadri
January 2019

The analyses included here are the author's own based on publicly available information and expresses his own opinions. He's not receiving compensation for it and neither does he have a business relationship with any companies mentioned in this article.

CES 2019: Fewer Flagship Devices, Greater Intelligence (1 of 2)

No ground-breaking devices were announced, but smart assistants continue to gain traction

1



Mostly Hype

- Verizon talks up 5G as 4th industrial revolution!
 - Reiterated that 5G is about vertical specific solutions and not 4G LTE on steroids
 - However, no specifics on new business models or use cases
 - Neither, did wireless carriers detail how 5G will allow them to compete with cable for home broadband
- AT&T continues to play up the 5G E (Evolution) network. While it has rolled out some of the key enablers to 5G like 4x4 MIMO and 256 QAM, it is LTE-Advanced being marketed as 5G
 - Unfortunately, 3GPP has no clear-cut rules around how the “5G” label ought to be used
 - AT&T did advance the timeline for nationwide 5G network rollout to early 2020
- No flagship devices with 5G announced
 - However, upstream value chain participants Intel and Qualcomm crowed about progress in selling chipsets to handset OEMs

2



Is for Real



- Instead of devices OEMs, tech titans Google and Amazon continue to battle it out for supremacy at CES
- Google poured huge marketing dollars and seemed to be in every corner of the convention, including a Disney theme park style ride
 - “Hey Google” was on the monorail, booths, and shirts!
 - Google Assistant showed promise of being able to do more than just telling the weather or turning on lights – E.g., in the interpreter mode, it can translate conversations in real-time
 - Hardware partners launched next gen products with Assistant built in – E.g. LG’s Smart Clock and KitchenAid’s Smart Display
- Amazon was also omnipresent and numerous partnerships from smart home to smart auto and everywhere in between were announced
 - Highlights include Ford’s new Infotainment system powered by Alexa, Lenovo’s smart tablet and display, Vuzix smart glasses
 - Amazon’s Ring announced a new smart peephole camera and Key by Amazon announced Key for Business and in-garage delivery

CES 2019: Fewer Flagship Devices, Greater Intelligence (2 of 2)

No ground-breaking devices were announced, but smart assistants continue to gain traction

3



Walled Garden Begins to Crumble

- Apple has been highlighting the services business as its smartphone sales stagnate and new partners expand the iTunes and AirPlay ecosystem beyond iPhone, iPad and Apple TV owners
 - *Leading TV makers like LG, Samsung, Sony and Vizio will support AirPlay 2*
 - *Samsung's 2019 TV line-up will additionally offer iTunes integration and a firmware upgrade will extend this to 2018 TVs as well: Samsung TV owners across the globe can purchase Apple iTunes movies and TV shows*
- In December 2018, Apple announced that Apple Music would be available on Amazon's Echo speakers
- Outside of N America and certain W European markets, Apple's share of smartphones is anemic and its share of streaming devices and smart speakers is also in the range of 5-15% in major markets; these moves ought to reinvigorate growth in services revenue

4



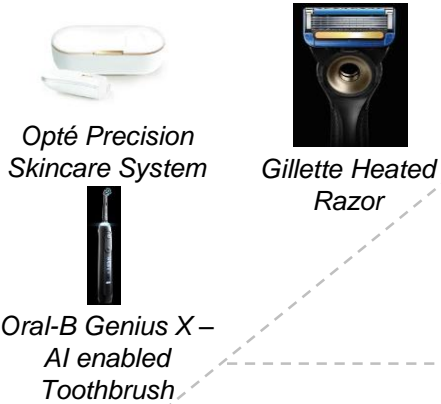
Detroit Goes to Vegas

- A few years ago, CES used to be all about smartphones – no more! Automated vehicle technology dominated the show floor
- Chinese market / OEMs take the lead in the push towards level 4 autonomy
 - *Byton had its K-Byte premium sedan that is expected to offer level 4 autonomy by 2021*
 - *The M-Byte electric vehicle offers level 3 autonomy and is seen as a Tesla competitor*
- Intel's Mobileye announced several autonomous vehicle deals with Chinese OEMs – it aims to offer autonomous public transport solution by 2022, and is co-developing ADAS (Advanced Driver Assistance Systems) with Great Wall Motors
- BMW, Mercedes, Hyundai, and Audi showcased VR, gesture control, voice-powered virtual assistant technologies, but are generally targeting the middle of next decade for fully autonomous vehicles
- Since a bold claim 2 years ago of enabling level 4 autonomous vehicles by 2020, Nvidia walked back to showcase a level “2+ System”, a fancy moniker for ADAS – more a reflection of what auto makers are demanding in the near-term and less tech companies talking about future possibilities
- Beyond passenger vehicles, Daimler unveiled a self-driving truck and Bosch unveiled a driverless shuttle bus concept

CES 2019: Other News of Note & Cool Concepts

While there were some CES first-timers, old-timers chose other venues to launch flagship products

P&G's Debut at CES



Samsung Galaxy S10

Launch scheduled for Feb 20 in San Francisco



Bell Nexus

4 passenger Air Taxi



LG Signature OLED TV R

Rollable TV



Otter Pop

iPhone OtterBox with built-in "PopGrip"



Wilkinson Breadbot

All-in-one artisanal bread making machine



Travelmate Robotics

Self-driving suitcase



Segway Ninebot Loomo Go

Delivery Robot

