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If CES 2017 offers any indication of years to come, we might suggest tweaking the event's name: "Consumer Experience Show" might be more fitting. Why? Because this year's extravaganza was less about technology and gadgets and more about how to transform data into convenience, action and experience.

Almost all the "things" we saw were presented in the context of your home, your health or your family. We appreciated this, as it creates a higher hurdle: tech can't just be whiz-bang; it has to provide real (and realistic) value.



Here are the themes and products that caught our eye.

TV and OTT

Attendees and the press were agog at the OLED TVs on display, and LG's \$8,000 W7 led the pack. At .15 inches wide and only 18 pounds, you can barely see it from the side and it has to be mounted on a wall (so it doesn't bend). The richness of the colors and contrasts are incredible. How long will it be before a "TV" is something you can roll up and pack away in a poster cylinder?

That may take awhile, but you can get a great-looking <u>Sony A1E</u> OLED set in the US later this year, thereby bringing another brand to the competition for picture quality that will surely beat whatever you have in your home today.

Finally, the TCL Roku TVs has matched its best-in-class smart TV system with a solid improvement in the picture and visual experience... and it's <u>affordable</u>. Cable companies better watch out!

Observation: As streaming becomes more and more important, consumers will demand an increasingly "cinematic" experience at home. Be prepared to deliver on both technical quality and emotional relevance.

Connected Cars

Ford Motor is leaping over many of its competitors by <u>integrating</u> Amazon's Alexa into its vehicles, thereby allowing you to check the weather or order dinner with both hands on the wheel. Once connected to Alexa, Ford plug-in electric vehicle owners will <u>also be able</u> to use Amazon Echo, Echo Dot or Amazon Tap to execute numerous functions from home, including:

- Start or stop the engine
- Lock or unlock doors
- Check range and charge status
- Determine fuel level
- Obtain a vehicle mileage summary

BMW is leveraging its <u>partnership with Mobileye</u> (an Israeli computer vision company specializing in driverless car tech) to put 40 autonomous test cars out on the road by the end of 2017. The German luxury car maker anticipates having self-driving cars in production by 2021.

Start-up automaker Faraday Future unveiled its first commercial electric vehicle, the long-awaited, self-parking <u>FF 91</u>. This electric car integrates more than 30 sensors, including cameras and a <u>lidar</u> system that navigates the car into its own parking space. Insert teenage driver joke here.

Observation: It will not be long before we'll be able to test content and call-to-action messaging in connected vehicles. Scale is still many years away, but clients relying on everyday retail, in particular, are likely to experiment in the next 18-24 months.

Wearable Tech



Fitness wearables continue to evolve, with the new Misfit Vapor attracting our attention. We like the look of the Vapor's proprietary OS, built-in GPS and touch bezel, and – given that the unit is waterproof and comes with a range of straps – the \$199 launch price is attractive.

The <u>Motivring</u> is one of the new devices we can't wait to test for ourselves. The idea of a "smart ring" has been around for years, but this is the first that's come closest to becoming a reality (maybe).

The ring is basically a tiny fitness watch: it features a heart rate sensor, a pedometer, a

sleep tracker and an "active minutes" counter to motivate activity. All of the data it throws off lands in the Motiv app, where you can view, download and manipulate the measurements to your heart's delight.

Remember mood rings? The new Jagger and Lewis smart collar is basically a mood ring... for your dog. Like a Fitbit, the collar not only detects how many steps your dog takes in a day, but also how much your dog is eating, sleeping, drinking and barking: data that the gadget then analyses to let you know if your pooch might be anxious, ill or bothered (by fleas?). An owner can access this information from anywhere via the Bluetooth-enabled app.

The Polar Team Pro Shirt monitors heart rate and tracks GPS via capture points embedded into the fabric and a small sensor pod on the back collar. Initially intended for team sports, the Shirt allows coaches to "gain insight into their players' effort, speed recovery and other metrics throughout the season."



HP, Dell, Acer and Lenovo

HP, Dell, Acer and Lenovo all showed off <u>VR headsets for Windows PC</u> users. Planned just in time for Holiday 2017, these under-\$500 systems will all feature depth-sensing cameras and some sort of mixed-reality features. We are imagining our children and

grandparents crashing into festive decorations at this very moment.

Smart Home

Smart Home Apple never exhibits at CES, but it still manages to have a presence via HomeKit, the company's platform for letting all kinds of third-party smart home gadgets talk to each other through your iOS devices. It's easy to connect devices using HomeKit, but Amazon has done a far better job signing up an array of product and app partners for Alexa.

Google Home

Google Home announced some positive steps this year, including partnerships with Belkin, Hyundai and Nvidia. You can see all the CES 2017 Google Home announcements <u>HERE</u>.



The "new" news last week was <u>VIV</u>, an AI assistant system created by the guys who built Siri. Billed as a more powerful version of Siri, in fact, VIV's AI is capable of writing its own code to accomplish tasks, even if it's never heard a particular command before.

Finally, there was Amazon's Alexa, the app that ate CES 2017. If Amazon is correct, 2017 will be the year that Alexa goes from humble home assistant to an all-encompassing presence built into every gadget we own.

How useful Alexa will really be inside the numerous devices she's been shoved into remains to be seen. LG's new <u>smart fridge</u>, for instance, is an ideal home for Alexa. Fridges are always on, play an important role in one of the busiest rooms in the house and have historically relied on humans for mundane functions, like buying milk or eggs. Many other low-use products seemed less useful, but companies are rightly signing contracts to take potential partners off the table, and consumers will vote with their wallets, as usual.

Mixed Reality Lenovo Phab 2 Pro

The <u>Phab 2 Pro</u> is the world's first smartphone to <u>include Tango</u>, a new Google technology that enables augmented reality (AR) gaming and utilities. Just look through the Phab 2 Pro, and you'll see objects and information overlaid onto the real world.

Asus unveiled the ZenFone AR, which boasts not only Tango but also Google's Daydream, allowing it to deliver virtual reality experiences.

Observation: Point and shoot no longer applies only to photography. Imagine your products placed into environments and scenarios literally created (and shared) by consumers. Either we will create those "worlds," or someone else will.

Robots



Robots Probably the most talked-about <u>robot</u> at CES 2017 was <u>Kuri</u>, a 20-inch-tall rolling bot that might win this year's award for most adorable. Created by Mayfield Robotics, Kuri can follow you around, taking video, telling stories, monitoring the home and greeting guests. It also has more personality than many others, as Mayfield smartly enlisted Pixar to help get the motions and sounds just right. Currently available only for pre-order, Kuri will retail for \$700 and be available for Holiday 2017.

Another robot that caught our eye last week was AvatarMind's <u>iPal</u>, which was cruising around the Sands Expo belting out hits from "Frozen." This "social robot" can play games, tell stories, dance and engage in video chat. It can also receive touch responses, recognize emotions and provide trivia answers. Tests indicate that the 3.5-foot-tall iPal can entertain children "for hours," with only 5 percent of kids reportedly being scared of the petite machine. We're scared, but we're old.

Observation: As Isaac Asimov said in 1942, "a robot must obey the orders given it by human beings..." but "must protect its own existence..." A short- to mid-term opportunity exists to help robots become suggestion experts and companions, but it will be a long time

'til this is an opportunity at scale. In the meantime, it is the terrain of ethicists and start-ups.



Voice Recognition

Voice is the <u>next computer interface</u>, and it's driving a more sophisticated smart home market. In the case of Echo and its alter ego, Alexa, for example, we already know that the data trail we leave across the <u>Amazon Cloud</u> enables automated or predictive replenishment enabled by an infrastructure from warehouses to aircraft and drones. In the case of Google Home, we are starting to see the manifestation of our "voiceprints" on the Play Store, Maps, Waze, Mail, Search, Calendar and Chrome, as Google Assistant uses the hints we provide to smooth the next steps in life's journeys, from booking travel to autodialling conference calls.

Echo is also bringing a new category of connections to life called "skills." Early examples include "Alexa get me an Uber" and "Alexa open 'Johnnie Walker'" (in this case, guided tastings and a stroll through whiskey knowledge). Skills will proliferate but unite behind the need for services and content that will respond to new person-to-machine interfaces in order to maximize their distribution, discovery and utility.

Artificial Intelligence

Wiidii is "the first hybrid personal assistant" to combine AI and human interaction. Available on Android and iOS, <u>Wiidii</u> assists you by suggesting places to go, making all your travel bookings and appointments and so on. By having natural conversations with Wiidii, it learns and provides increasingly relevant and useful answers.

You and I may not want it, but this year's Show made it clear that devices are getting smart (meaning they can learn and act upon what they've learned), and system designers have discovered an unspoken consumer desire to be "understood" and helped by gadgets.

Conclusion

CES 2017 was about the increasing intelligence and connectivity of everything, driven by advances in machine learning, artificial intelligence, passive sensors, robots and robotics. We are heading into a period where the impossible is not only probable but present, and it's less about the devices themselves and more about how they, and we, are changed by connected data.

All this points to a seemingly-inevitable leap into an untethered world in which devices operate increasingly independently of the smartphone and screens, responding instead to voice, gesture and physical and emotional signals from us and each other. CES 2017 provided an update on the increasingly-intelligent loop that connects humans and their data exhaust to the things that move us, entertain us, feed us and maintain the health of our bodies and safety of our homes. For advertisers, the questions are simple and the answer complex. How do we build, maintain and make discoverable a data story around brands, with and without screens, to ensure their prominence and survival in an age of machine-generated relevance? Let's take some action toward this ultimate goal in 2017.