

Lifestyle Futurism

Since we're talking about tech all year round these days, I made the annual pilgrimage to CES this year with certain expectations. That we'd see lots of talk about 5G, continuing but less emphatic interest in autonomous driving and VR, even higher resolution TVs and nothing dramatically earth-shattering about mobile phones.

Also, going into this year's CES we've seen the beginnings of "tech-lash," a sobering realization of our responsibility to understand and direct the development of advanced technologies in our lives, industries and societies.

iPhone sales are disappointing, fulfilling worries about smartphone sales growth. The duopoly of Google and Facebook continues its dominance, and Amazon grabs more of the retail universe, becoming the no. 3 digital advertising platform by simply showing up. Was there anything especially exciting waiting for us?

Yes. CES IS very important. It's an opportunity for the designers, engineers and manufacturers to demonstrate their idealized vision of our lives with near- and farther-future versions of their products. The drive to digitally transform and connect the built environment and life activities continues.

Every year we see more evidence of the knitting together of life's systems: cars, homes, appliances, services and utilities.

Alongside work on wellbeing and care applications as well as education.

At CES, we are witnessing the emergence and evolution of the tools for creating and managing the mechanics of our digital/physical lives.





Insights and Takeaways - 2019

- Samsung's collaboration with Google (Assistant) and Apple for content augur a trend toward IoT integration pragmatism.
- 5G will inspire new possibilities for the design and delivery of network services and data probably first in enterprise, commercial and industrial applications.
- Very fast 5G and AI on user and close-to-user devices can support decentralization designs for interactive content such as games and mixed reality.
- Voice interfaces are ubiquitous and advance home IoT integration, but access to all capabilities across devices is lacking.
- Al technologies are truly advancing into products and creative applications.
- Wellness and healthcare tech are improving fast, getting a lot of attention and may become a vital component in improving life in an age of spiraling medical costs.
- Autonomous vehicles will change work and entertainment behaviors, but we'll see mobile out-of-home in shared vehicles first.
- Learning to program in childhood is preparing the next generation to be cognitively prepared to work with Al and automated systems.
- Privacy protection and data stewardship are becoming important brand properties.
- Brands will increasingly take their innovations directly to the consumer.
- Mapping marketing to context, content, intent and emotion through Al-driven real-time insights will become as important as profile-based personalization in driving results.







From LG Keynote – CES 2019



5G

Revolutionary. But what, when?

The carriers managed to fumble the ball at the starting whistle by confusing the marketplace with their marketing squabble over their 5G offerings. But it doesn't matter much. It looks like AT&T MAY indeed offer a faster service than 4GLTE, but it will not be 5G in specification or speed.

Qualcomm was showing 5G phones to come and announced that 30 may arrive this year, but wide deployment will take time. And getting any marketing bang out of the new speeds will probably take a while. There may be opportunities for some great case studies for adventurous or tech brands.

But **5G WILL** indeed herald a new age of wireless networking where on-device computing (including Al services) and distributed computing centers (edge computing), will be possible and include data-heavy content like VR/AR and new service applications like mobile gaming, voice recognition and more. Microsoft was showing off its *Project xCloud* (at the Intel area) and Sony's *Playstation Now* may be among the first things in the consumer space with this architecture.

Here, a new world of creative possibilities for interactive brand experience awaits. But ii is a couple years out.











Not wanting to be overlooked during the excitement, cable leaders talk 10G at CES - Michael Powell, NCTA; Tony Werner, Comcast; Pat Esser, Cox; and Phil McKinney, CableLabs.



Autonomous Vehicles

Will we see People Movers first?















You can think of an autonomous vehicle as a people-moving robot. And roboticists talk about the difficulty of designing robots for unstructured spaces likes homes or roads versus factories. Interestingly, many companies were showing sophisticated jitney-like people movers. They were almost as numerous as the futuristic personal car. We may see these sooner before the widespread use of autonomous personal vehicles.

These people and cargo movers fit more immediate use cases, like efficient shared travel, even "moving meeting rooms," and could be deployed at scale in more controlled, semi-structured environments, extending or making existing transit routes more flexible.

For marketers, these vehicles are imagined with gorgeous screens and interactive tech, creating numerous new out-ofhome advertising or brand application possibilities.



Al Everywhere

And use will only grow.

Al was featured in so many of the consumer products at CES this year it would be easy to get skeptical about its supposed presence or relevance.

Here's a short list of where real AI technology is in use today:

- 1. Qualcomm adding AI image recognition and processing to mobile phone chips
- 2. Samsung adding behavior-driven AI to their TV media browser to bring frequently watched and related content across OTT channels to the top of list
- 3. TV manufacturers are adding AI algorithms to upscale video and manipulate/improve sound streams for dialog enhancement
- 4. NBCUniversal is using Al to track program context and emotion, at the frame level, to match appropriate ad content for effectiveness
- 5. P&G Oral-B Genius X toothbrush compares your brushing to hundreds of other patterns to give you advice

The LG keynote presented a near-future vision of connected home or office devices sharing the combined behavioral data to create anticipatory alerts and automate domestic activities. Amazon demonstrated whole-house family alerts made through connected Alexa-driven devices. Integrated self-learning home systems could prove their worth in the future and overcome the many trivial use cases demonstrated today.











Privacy and Tech Ethics

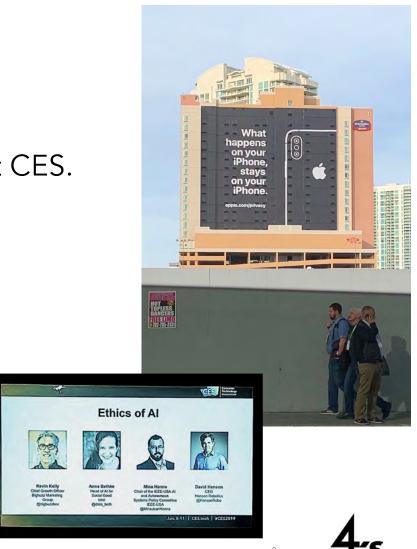
Privacy came up in almost every session at CES.

From marketers to health care entrepreneurs to toy designers, everyone has decided that they must address privacy in designing products and services that interact with humans.

Apple had a marketing coup with its building poster touting its privacy stance. It was mentioned countless times during the show.

4A's member Kevin Kelly (Founder/CEO BigBuzz) led a fascinating panel on AI ethics and another panel addressed algorithmic bias.

It's clear that data stewardship and fairness in tech-driven decisioning and operations is now a part of brand purpose.



4A's Creative Technologies - CES 2019

Shelly Palmer Breakfast Insights and values

Shelly Palmer has had a deep relationship with CES for many years, with his tours, briefings and more. He also has a number of meetings for clients and selected attendees to hear from leaders in the technology and media space.

Shelly Palmer is a thought leader and these talks and interviews very often touch on the most important themes of the conference. Here are some highlights:

- Shelly Palmer: 8K TVs are beautiful, but the production workflow isn't there yet. Not even enough 4K content today.
- Samsung: Building security into connected products is a must.
- Samsung: 5G will put fiber speed connectivity in your pocket.
- PwC: There is momentum for federal law on data-use.
- Palmer Group: Opensourcing your technology development is good for your brand.



- Facebook: Stories outside the the timeline and Instagram messaging are important opportunities for connection.
- Hulu: Investing in content but also **providing many subscription choices** are driving our growth.
- Hulu: Our Culture Lab helps us find social moments where it's possible for us to participate.
- Quantcast: All web parties need to share data to counteract the duopoly dominance. We'll use AI to understand audiences.
- Shelly Palmer: We must assert our humanity in developing the responsible use of powerful advanced technologies. We all share more core values than our polarized age suggests.
- 4A's: This applies to both marketers and agencies. We share the creative impulse and common goals for growth.



C Space Sessions

Marketing Technology Thought Leaders

The CES C Space is dedicated to advertising and marketing companies and technologies. This year the C space marketing technology sessions were very worthwhile. Sessions topics included:

- The diversification of technology in media and marketing
- How marketers are looking at tech
- The resurgence of marketing tech

The speakers were a great mix of tech-savvy marketers from brands, publishers, networks and agencies. Some highlights:

- Vice Media: 5G will make everyone a broadcaster.
- Belkin: content marketing against intent is more powerful than personalization in consumer electronics.
- AmEx: economic cycles can drive brand purpose.
- RPA: Gen Z are identity shifters.
- AmEx: The news feed collapses the media journey; personalization here essential.
- IBM: Clients want more convergence between ad tech and martech.
- TransUnion: Consent-based data use legislation is coming everywhere.





- Braze: Brands have to behave as citizens in world society.
- Adpredictive: CMOs will be the next CEOs: they understand the customer best.
- AmEx: Programmatic is all about your goals and data strategy that drive the tech. The tech is getting better.
- Young Turks: We can't push messages, we have to pull engagement to our content.
- IBM: Creating the store as a shopping application is the key to retail.



4A's Creative Technologies - CES 2019

C Space Sessions Linda Yaccarino - NBCU

MediaLink's CEO Michael Kassan had a great conversation with Linda Yaccarino, Chairman of Advertising & Partnerships, NBCUniversal, with lots of insights for media and advertising people.

- TV isn't going anywhere. The consumer's relationship with great content is still strong.
- The commuting experience moving to autonomous vehicles will bring great opportunities to bring our content everywhere.
- Better, more interactive delivery is great, but content is still what motivates people to act.
- Apple has been very, very smart about data use responsibilities. Very disciplined.
- We will see addressable advertising in linear TV this year: 35% of NBCU viewing in OTT with addressable capabilities.



- Transparent platform partnerships will be key.
- It was not a tough year for data! A tough year for some companies. We took our eye off the most important issue: the viewer experience.
- Brand purpose is connected to your messaging distribution partners. Social-only isn't always the way to go.
- We're using machine learning for contextual intelligence.
 We're tagging emotional attributes at the scene level for better ad matching.
- We've given ourselves permission to self-disrupt!



P&G LifeLab

Innovative products & new brand experiences



P&G made their CES debut this year and it was big news for the CPG and advertising communities. With its *Life Lab* they brought their own Eureka Park-worthy innovations with numerous branded T-shirt tech assistants and their own content stage as they push their way into new experiential lifestyle modes for the generations moving to direct-to-consumer brands.

"I would say that the days of advertising as we know it today are numbered," P&G's Marc Pritchard declared on stage at CES. "We need to start thinking about a world with no ads."

To demonstrate the point, P&G featured cutting-edge products, some Al-powered, that it hopes can deliver big brand sales results through personalized high-tech product experiences.

- Oral-B Genius X Toothbrush
- Opté Beauty Wand Precision Skin Care
- · Airia connected scent device
- Olay Skin Advisor
- Gillette self-heating razor
- DS3 reduced water-use cleaning products

















Google Everywhere

Number 2 tries harder

Amazon had a terrific exhibit showing off the growing family of Amazon-branded products and the numerous other voice-activated gadgets that work with Alexa. But Google bought out the show, even larger than last year. It built a large experience pavilion outside the main convention center and hired a large number of human Google Assistants to assist in the many booths throughout each of the CES conference centers where Google Assistant was an integration partner.

















Kids @ Play Sessions

Are we looking at the future of work?

Take a look at technology development through the lens of the products people are creating and talking about for children. As you might expect, there is a lot of emphasis on learning to program and "play" with simplified engineering, computers and robot toys. This is a fascinating cultural perspective on our visions (and fears) of the future of work and even the challenges of maintaining the current and future technologies of the home.

Roboticists and AI engineers debate about how **robots should be designed to be effective human collaborators** in another hall at CES. While educators and entrepreneurs demonstrate toys meant to teach coding and critical thinking to children by having them program robot balls and other objects to move and follow instructions.

A lot of attention is also paid to parent-child interaction, and a bit of worry about whether physical play and the imagination will suffer. All this mirrors adult real-world concerns in advertising and business generally.

Generations in the very near future may have a very different view of robots, automation and AI assistants than current adults.

Brands and agencies can take away real insights from watching this space and what the kids are making of it and what kinds of behaviors and attitudes will emerge.







Al and voice – children's new BFFs? Building tomorrow's leaders with today's play



Wellness and Healthcare Tech

Soon to bring real social value?

The healthcare area at the Sands Convention Center has gotten bigger and flashier every year. There is also a large amount of wellness related gear on the Eureka Park startup floor.

Incorporating a number of converging and improving high tech areas from connected home and personal devices to neuro appliances and body sensors, this part of CES now feels potentially like the most consequential.

With spiraling and seemingly uncontrollable healthcare costs, bringing reliable preventative health technology into the personal and home economy could have a profound impact on future healthcare improvement.

Sleep tech and stress reduction figured prominently, mirroring a major societal concern.

Injury prevention tech could become a major field for innovation.

Connecting smart appliances with smart watches and other quantified self applications for self care and finally connecting to health care provides may bring real social value in the future.



Stress reduction band tricks the brain into a lower rhythm





Hip protection air bags











Some amazing things at CES





Flexible screens on the way - here from Royole



LG OLED TV Screen rolls up and down in it's box



Segway Skates





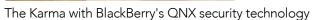
Personal racing drone





DJI Osmo Pocket tiny 3axis stabilized handheld video camera

Kano Harry Potter programmable wand





Follow up with us at 4A's CreateTech, Feb. 5, NYC!

The Innovation Imperative

Many of the trends and topics at CES tend to percolate through the rest of the year. And we'll be following the most important. We welcome your thoughts and ideas about technology in life and marketing.

If you're a 4A's member and would like to share your expertise on marketing technology, creative technology and/or innovation through our publishing program, please contact Chick Foxgrover to submit a topic. cfoxgrover@4As.org

We also produce a conference every year called **CreateTech**, which will be held on February 5, 2019 in NYC.

CreateTech delivers stories and conversation about the creative possibilities of advanced digital technologies and platforms. This year, creative technologists and leaders in advertising, marketing and other accomplished creative minds will gather together to begin a discussion of a new "Innovation Imperative".

So along with the exciting work and possibilities of AI, mixed reality, voice computing and all else, we'll begin this year with a look at the many dimensions of innovation; adapting to survive and thrive.

Check out the agenda here: http://createtech.aaaa.org/. Please join us at CreateTech 2019!







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4A's 5 Bryant Park New York, NY 10018 +1 212.682.2500 www.4As.org

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