

# NACD<sup>®</sup> CES<sup>®</sup> EXPERIENCE

JAN 9-11  
LAS VEGAS

What happens in Vegas no longer stays there.

This publication is a summary of key takeaways from the NACD CES<sup>®</sup> Experience.

When you think about the future of your business, ask yourself the following question: are you on track for growth or are you prepared to watch your company be cannibalized by nimbler competitors? It was with the hope of helping directors to answer this question that NACD, in partnership with Grant Thornton, created the NACD CES<sup>®</sup> Experience. It is the first and only board-focused experience at the Consumer Electronics Show (CES<sup>®</sup>).

CES<sup>®</sup> has become more than just a technology show. With more than 185,000 attendees and 3,800 exhibitors from across the globe, it has become THE event for those who want to understand how disruptive trends converge to shape the future of business. NACD is committed to exposing our members to technology and innovation and facilitating robust dialogue among directors about the potential impact of these advancements on the companies they oversee. As part of the immersive learning at CES<sup>®</sup>, futurist and tech guru Shelly Palmer curated director-centric, expert-led tours of the exhibits that were most relevant to the future of business and offered VIP seating at his always-sold-out Innovation Series Breakfast.

This event also represents an acknowledgement that as the job of a director gets more complex, the way that directors approach continuing education must evolve. Longtime corporate director and CES<sup>®</sup> attendee Liane Pelletier reflected, "I spent my whole career in the telcom/network business. I now serve on a board of company that includes this line of business. As we think about the advanced network technologies (e.g., 5G) that are in front of us, to actually see the many use cases right here on the floor really brings to life how new infrastructures could be used. It's pretty exciting."

The following is a brief summary of key takeaways from our inaugural event.

## HIGHLIGHTS FROM A DIRECTOR-CENTRIC EXPERIENCE OF THE WORLD'S LARGEST TECH SHOW

### CREATED IN CHINA

As one director observed, "It's no longer about being made in China. It's about being 'created' in China." Chinese companies were on full display at CES<sup>®</sup> with about 1,551 of the 4,229 exhibitors hailing from China—a 400 percent increase from just six years ago according to the Consumer Technology Association, which organizes CES<sup>®</sup>.

Here are some of the event's highlights:

- An all-electric SUV by automaker Byton, cofounded by executives from BMW and Infiniti, was on exhibit. Production is slated for 2019.
- A battery powered spoon or fork for people with hand tremors from Parkinson's disease and other disabilities made by medical-products company Gyenno was on exhibit. The operating system in the utensil detects usage and uploads data to the cloud that helps improve the performance of the handle. While the product is now only available in mainland China, Gyenno was at CES<sup>®</sup> seeking distribution partners.
- An opening keynote by Richard Yu, CEO of Huawei Consumer Business Group, discussed the company's investments in artificial intelligence (AI), the Internet of Things (IoT), and new smart



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about technology  
and disruption,  
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devices. Forget smart phones—Yu showed off the company's intelligent phone, the first to feature an AI processor inside.

### A FUNDAMENTAL CHANGE IN HOW WE SEE AND COMMUNICATE

“AI, blockchain, and augmented reality are three buzzwords changing everything,” said Shelly Palmer, CEO of The Palmer Group. Palmer challenged the standing-room-only audience at the Innovation Series Breakfast to think about and become involved in defining “responsible innovation” as threats to privacy and dire predictions for robotic capabilities become the stuff of reality rather than science fiction.

- Augmented reality (AR) through special eyewear and 3-D modeling will continue to transform how shoppers are able to envision products in their homes or offices and how media subscribers experience stories and entertainment.
- Voice-activated commands will be everywhere whether through Apple's Siri, Amazon's Alexa, or Google Assistant, allowing us, if we choose, to talk to our refrigerator, vacuum cleaner, clothing, and stuffed animals. And it's not all talk. Haptics—sensor-driven ability to control devices with a wave of a hand or finger tap of the air—were on full display, most notably as Intel hosted a concert featuring musicians but no physical instruments.
  - Other products monitor brain waves to help improve sleep or to anticipate a driver's move to initiate braking or acceleration. Nissan Intelligent Mobility demonstrated a concept car with brain-to-vehicle technology on one end of the product spectrum, and on the other end, BrainCo, a brain-machine interface (BMI) engineered in the Harvard Innovation Lab, is marketing a wearable headband that reads brain activity for focus levels to improve learning.
- Sonya Sepahban, director of Cooper Standard and Ge-nomenon Inc. and former senior vice president of General Dynamics, said that while virtual reality (VR), AR, wearables, and IOT were on full display at CES®, there was a difference in the show this year. “Underlying what I see this year that's different from other years that I've been here is that everything has the same theme of focusing on the final customer—the final user experience—more so than being these isolated gadgets,” she said. “If you look at what Google is doing, what everybody is doing here is providing some technologies and some piece parts to that final experience. I think all of us, regardless of what product we're producing, if we thought in that way, it would expand our view of where we can provide more value, where we can compete, and where we can partner with others.”

### MAKING CONNECTIONS: SMART CITIES

Autonomous vehicles are not simply the wave of the future—they



Mike Desmond, Partner, National Audit Industry & Growth Leader, Grant Thornton; Dave Wedding, Regional Managing Partner-Southeast, Chairman of Board, Grant Thornton; Liane Pelletier, Director, ATN International, Expeditors International of Washington Inc.; Chair, NACD Northwest Chapter; M. Christian Mitchell, Chair, Reis Inc., Lead Independent Director, Western Asset Mortgage Capital Corp., Director, NACD.

are already being integrated into vehicle production today. Ford CEO Jim Hackett showed an example of a man driving his car who suffered a heart attack while driving. The car was able to detect the man was suffering a health trauma and the autonomous element of the vehicle took control, safely pulling the car over to the side of the road and calling 911. While this was happening, an alert was also sent to local traffic in the area to divert vehicles to other routes to clear a faster path for an ambulance.

NACD first discussed connected cars and vehicle-to-vehicle technology at the 2016 NACD Global Board Leaders' Summit, when the then innovation chief for the U.S. Department of Transportation Chris Gerdes shared how connected vehicles could dramatically reduce the rate of crashes. Fast forward two years and automakers such as Ford are unveiling plans for connected cities and displaying how data and connected devices can improve communities. Ford's first test of this concept will be, of all things, pizza delivery. Ford displayed a self-driving delivery vehicle and earlier this year announced it partnered with Domino's to test the service. At CES®, Ford announced a partnership with Postmates to test expanded delivery services in cities to include groceries and other items. Meanwhile, Toyota has teamed up with Pizza Hut to pilot its delivery vehicle. Both Ford concept vehicles are expected to be tested at MCity, a 32-acre urban testing ground for driverless and automated vehicles built at the University of Michigan with cooperation from the Michigan Department of Motor Vehicles.

### EVERYTHING OLD IS NEW AGAIN

Companies that may have been considered old-line—BlackBerry,

Honeywell, or ADT—have reinvented themselves through their understanding and embracing of technology. So while your BlackBerry with the keyboard and trackball may be gathering dust in a drawer, through a series of smart acquisitions, the company has been able to branch out into operating systems that are embedded in people's daily lives (QNX) and security. (AtHoc).



**“As a director, you want to have your thinking informed. This is one of the best places that you can do that, and it’s one of the easiest, least expensive ways you can literally sit in front of a crystal ball and look into the future. And, that’s the power of CES.”**

SHELLY PALMER  
CEO, The Palmer Group

## RESPONSIBLE INNOVATION

There was no shortage of innovations that showcased the use of technology for good: robotics in prosthetics were on full display. Olli, a self-driving van designed for people with disabilities, will create a new level of independence for those who have mobility issues, and Aflac took home a CES® “Tech for a Better World” award for its empathetic, plush Aflac duck designed to provide comfort and companionship to sick children. The insurer says it will give away at least 16,000 units of its My Special Aflac Duck to children newly diagnosed with cancer.

But responsible innovation is about more than products that are designed to do good. The first consideration of new technology and its applications should be “do no harm.” Shelly Palmer challenged the audience at his Innovation Series Breakfast to think about and become involved in defining “responsible innovation” as threats to privacy and dire predictions for robotic capabilities become the stuff of reality rather than science fiction.

## THE INTERSECTION OF AI AND HUMAN CAPITAL

While AI and machine learning were largely on display at CES®, the human element that underscores these technologies is crucial. Data scientist, corporate director, and artificial intelligence symbiote J. T. Kostman notes that there are several factors that make computers both wonderful and problematic. They are fast, precise, obedient, and “incredibly stupid.” Kostman explains, “If you tell a computer, ‘Put the gas in the car,’ odds are pretty good that you’re going to get soggy seats in your vehicle. It will do exactly what you said [to do] very, very quickly.” AI is about changing how the machine processes information—giving computers goals rather than just instructions. One director, a former chief human resource officer, highlighted the unintended consequences of AI, and how the criteria that are used to identify high-performing candidates, for example, can actually “make bias intelligent” and create systems more inequitable to women and people of color. Algorithms are no better than the people who are programming them. Kostman cautions, “If you initiate bias into a system—remember: faster, smarter, better, more optimal, more precise!—[the machine] will just do it better.” You must help the system understand that having heterogeneous perspectives, voices, and minds in an organization is a beneficial thing, Kostman says.

## COMPETITION BECOMES COOPERATION

Partnerships can be key to advancing your company and companies must think in a multidimensional way about who their competition is and who will make for a good partner in the future. One example of an unexpected partnership is between Levi’s and Google. Who would have expected a company best known for its jeans and a company best known for its search engine would come together to create a smart jacket? Adding technology to fabrics creates totally new categories of functional clothing. “It’s not just enough to understand what could impact your business to grow it or hurt it and who you should have relationships with strategically, but you must ask what are the unique combinations of technologies,” said Maureen Connors, director of Fashion Incubator SF and NACD Northern California Chapter.

## A NEW MANDATE FOR THE BOARD

To effectively oversee this new wave of technology, board members must be more vigilant than ever before when they are exercising oversight of leadership, judgment, and ethics throughout a company, particularly when it comes to things like talent, privacy, security, and reputation risk. The *2018 Edelman Trust Barometer* bears this out: an overwhelming majority of respondents cite guarding information quality, protecting privacy, and safeguarding consumers as critical to rebuilding trust in business. Again, directors should also rethink where and how they get information as part of the increased need for engagement around technology governance.

## WHAT DIRECTORS ARE THINKING ABOUT

Following the sessions and tours, directors in attendance spent time in small-group discussions focused on sharing their key takeaways from the NACD CES® Experience. The following is a sample of what's on the boardroom agenda related to some of the insights learned at CES®:

- **Focus on enterprise risk and capital allocation.**

- Keep an innovative ear to the ground and do not allow oversight to become mired in specific risks.
- Redefine what risk means for your company in a time of volatility. Effect changes to ensure your company is resilient and agile with regard to the total ecosystem. (Don't just partner with the latest and greatest in the moment.) As Maureen Connors said, "As you look at the board strategy going forward, and [what] your investment in R&D is, tech assumes kind of a solid state. I think directors need to rethink the strategy going forward, asking is there an opportunity with any of these [technologies]? How soon? What will it cost and how could it impact our current strategy?"

- **Connectivity is increasing.**

- Everything that can be connected will be. What does this mean for our business models?
- Have we considered the associated security and privacy risks of increased connectivity? What are we doing to mitigate these risks?

- **Figure out what you don't know, and then know it.**

- What processes can boards put into place to drive innovation internally?
- Have discussions on how to become aware of what's happening around you and understand where the competition is coming from. Experiential, "on-the-ground" learning becoming more critical as technologies and applications evolve.
- The board wants to hear ideas management left on cutting room floor. "What strategy or strategies did you decide not to pursue and why?"

- **The rise of Asian companies and influence will be significant both in technology and the world at large.**

- Do we have the right salesforce in China?
- How do you tap into this market?
- Do you understand the next wave of competition and the companies driving it?

- **Consider the impact of recognition technology.**

- Security is important—how do we incorporate this into our business and how do we harvest that data?

- **Talent is every board member's responsibility.**

- In the boardroom, you cannot have a single person be a subject-matter expert and assume that is sufficient (e.g.,

one cyber expert on the board does not suffice).

- How does technology change your boardroom composition? What about committee structure?
- In the organization at large, the board must ensure management has talent programs in place to drive a pipeline of new generational talent.
- Effectively harness data to eclipse your competition.
  - To outpace competition and protect your company from disruption, you need to collect data, turn it into insights, and turn that into actionable information. Director Liane Pelletier observed: "A couple of the technologies that we talk most about are AI and data analytics. For legacy companies, we sit on so much data. In fact, we need to think of that as a tremendous asset. How to mine and monetize that data for the purpose of our next product line is really exciting."
  - As the amount of data your company has grows, so too must considerations and considerations around privacy and security evolve.
- Leverage integration to create new types of consumer products and engagement.
  - On display at CES, we saw Peloton, a fitness company founded in 2012, which created an indoor-cycling-studio experience that can be accessed on your schedule in the comfort of your own home. This company combined the concept of community with exercise and entertainment to develop an entirely new product.
    - Ditto for PicoBrew, a home beer-brewing machine whose magic is not in the technology but in the community it has built around the product, including hundreds of established craft breweries around the country who share their recipes with users, and



Gerald M. Czarniecki, who chairs several boards, including ECO Building Products Inc., National Leadership Institute, National University and Chair Emeritus, NACD Florida Chapter; Chair, helped sum up the key insights from the event.

would-be brewmasters who review and rate users' creations.

- Benchmark Electronics' board member Jeffrey McCreary observed, "To me, the theme that was even more important here is the concept of both personalization and connectedness. The personalization element is going to have big ramifications on a lot of things in commercial real estate, the retail experience, and in the automotive experience."

- The role of the board is constantly changing.

- While boards will continue to be tasked with the key hallmarks of upholding good governance, their role is expanding.

- "Part of the role is also opening minds. Directors can have a broader peripheral vision and come back from experiences with ways in which we can actually effect what's going on at a company," said Sonya Sepahban.

## RELATED RESOURCES

The Palmer Group, *2018 Media & Tech Trend Report*

NACD Blog post, "A Walk-Up to CES: What to Expect from the Annual Tech Extravaganza"

Recode, "Meet Shelly Palmer, King of the CES Tour Guides"

John Schwartz, "Blockchain or Blockheads? Bitcoin Mania Mints Believers and Skeptics"

Kim S. Nash, "Seeking Enlightenment, Corporate Directors Embark on Tech Pilgrimages"

Brian X. Chen, "The Big Tech Trends to Follow at CES 2018"

David Pierce, "Let's Hope CES 2018 Brings Some Sanity to Personal Tech"

Erin Essenmacher, "What Happened in Vegas: Highlights from CES"

Erin Essenmacher, "Revisiting Four Disruptive Trends From CES"

Cheryl Soltis Martel, "Winning Start-Ups: Where Are They Now?"

shellypalmer.com

*2018 Edelman Trust Barometer Global Report*

CES® 2018 Keynote

Kim S. Nash, "What a Visit to CES Taught a Board Director About the State of IT"

## KEY TRENDS

Shelly Palmer shared the following key trends as areas The Palmer Group has on its radar:

- Accelerated disruption of the media business
- AI and machine learning
- Augmented reality (AR)
- Blockchain and smart contracts
- Chat as an app killer
- Cognitive cloud services
- Datification
- Emerging network technologies (e.g., 5G, WiGig)
- The evolution of retail (AR experiences)
- Human/machine partnerships
- Internet of Things (IoT)
- Open source
- Policy changes
- Quantum computing
- Robotics and artificial muscles
- Sensor technology
- Social media addiction
- Streaming video and streaming data
- Well-matched algorithms and training sets

## UPCOMING RELATED EVENTS

Do you want to learn more about some of the key findings from the NACD CES® Experience? NACD Chief Programming Officer Erin Essenmacher will be sharing insights at the following chapters later this year:

	DATE	LOCATION
NACD Northern California Chapter	Jan. 31	WilmerHale 950 Page Mill Road , Palo Alto, CA
NACD Heartland Chapter	Feb. 13	The Kauffman Foundation Conference Center 4801 Rockhill Road, Kansas City, MO
NACD Texas TriCities Chapter	March 9	Vinson & Elkins 2801 Via Fortuna, Suite 100 , Austin, TX
	March 16	Junior League of Houston 1811 Briar Oaks Lane, Houston, TX