

## Technology

# Tech faithful gather to worship at the cathedral of innovation

## Leaders looking to the cutting edge for salvation

**LAS VEGAS:** After a rollercoaster year for the tech world, many industry leaders are looking to the cutting edge for salvation. As tech industry players converge in Las Vegas for the 2018 Consumer Electronics Show, an overriding theme is that gizmos, artificial intelligence, cloud computing and superfast internet connections hold answers to many if not all ills—the new religion. One of the world's largest trade shows, CES is drawing an expected 170,000 people and 40,000 exhibitors from dozens of countries showing wares in robotics, digital health, artificial intelligence, sports and more.

Technology will continue to improve communication, enchanting us with bolder and brighter screens, exhibitors say—but it additionally vows to end urban congestion, treat cancer and depression, and help us live fitter and more productive lives. Jensen Huang, chief executive of the computer chip and artificial intelligence group Nvidia, said advances in machine learning have opened up vast possibilities, including the ability of software writing software. “This means we can solve previously unsolvable problems,” Huang told a media event Sunday, ahead of the official Tuesday opening of the trade event.

Some exhibitors envision a world where self-driving cars could be summoned any time of the day, eliminating struggles to find parking or petrol stations. Machines would tend to the tedium of traffic, which would run smoother since vehicles would wirelessly “talk” to one another to optimize travel efficiency. A new “intuitive and intelligent” car from Chinese startup Byton aims to tackle the billions of hours lost to traffic congestion around the world each year.

Those times lost “could be used for things which are so much more fulfilling,” Henrik Wenders, vice

president of Byton, said Sunday at one of the first media events at the show. While tech is being touted as a solution to many ills, there is also a darker side, noted analyst Bob O'Donnell of Technalysis Research. “Tech is being seen as the cure for everything, but it can also be the cause of societal issues,” O'Donnell said, citing concerns over cybersecurity and a recently revealed flaw in computer chip technology that could leak data. “Most people in tech are optimistic, but they may be naively optimistic.”

### Digital doctoring

Robin Raskin, who heads the CES segment called Living in Digital Times, pointed to advances in health and medicine in recent years, particularly new technologies to assess cancer and treatment possibilities. Startups and major firms are also using new apps and technologies to tackle diabetes and depression.

One startup on Sunday unveiled eye-tracking technology to analyze ailments including autism, concussions and Parkinson's disease. RightEye co-founder and chief executive Adam Gross heralded the technology as “a game-changer” for the health care and sports industries, emphasizing the ability to quickly and accurately generate “amazing insights” into health, vision and performance. In collaboration with doctors or trainers, the information could be used to guide therapies or exercise routines.

“The potential for this technology to change people's lives around the world is incredible and really exciting,” Gross said. Technology will automate and augment the treatment of disease in the years ahead, predicted Consumer Technology Association research manager Lesley Rohrbach. “You can talk with a health care provider through an app, and get



LAS VEGAS: E-vone smart shoes with falling alert are displayed at CES Unveiled Las Vegas, a press preview event before the start of CES. —AFP

remote monitoring,” Rohrbach said, speaking at CES. “You can visit your doctor without actually physically visiting them.” Virtual reality is also being incorporated into therapy, used to treat traumas, phobias and even dementia from aging, according to Rohrbach.

### Cities smarten up

As much of the global population migrates to urban areas, technology is powering “smart cities”—where sensors, cameras and cloud computing work

like house elves to manage needs like recycling, trash disposal, traffic, pollution and road repairs. Inside homes, devices can make sure water and air stay clean, and that people are sleeping well.

Technology can also keep us safe, exhibitors say. Biometrics including fingerprint, iris and facial recognition are being built into smartphones, computers and padlocks as security features. Robots, meanwhile, are being designed to do everything from patrol oceans for fish poachers to watching after us, especially as we age. —AFP

## Using ‘digital Lego’, urban communities redesign India’s slums

**MUMBAI:** When urban designer Trupti Vaitla asked residents of a Mumbai slum what new features they'd like to see in their dilapidated public space, she was surprised by one popular answer: a patch of grass. The Lotus Garden is the only open area for about 200,000 people who live in cramped and squalid tenements abutting the city's biggest landfill. The municipal corporation had done little for its upkeep and it was littered with trash.

Three years ago, Vaitla and her team were tasked with transforming it into a space that people would actually use. They expected residents to suggest elements like lighting, elaborate landscaping and a gym. The team didn't expect such enthusiasm for a simple lawn. “But they were excited to be involved, and for them, a patch of green was really important — a small oasis in their otherwise drab and congested world,” said Vaitla, chief executive of Mumbai Environmental Social Network (MESN). Vaitla's team, backed by funding from United Nations Habitat, which promotes sustainable urban development, spent months cleaning up Lotus Garden. They installed lights and water, planted shrubs and grass, and built an open-air gym.

From the very first day, residents including women and children who had earlier avoided the space, swarmed in. Vaitla said. The appetite for areas like the Lotus Garden is not surprising. In Mumbai, with its population of 18 million and counting, soaring real estate prices and relentless construction, public spaces are shrinking. “In a crowded slum, these spaces are particularly relevant, as people have nowhere else to go,” said Pontus Westerberg, digital projects officer at UN-Habitat. “These spaces also impact on their health, sanitation, safety, access to emergency services.”

### Digital Lego

Encouraged by their success with Lotus Garden, MESN and UN-Habitat collaborated on another space in the nearby Gautam Nagar neighborhood. This time, they decided to use technology to encourage even more community involvement. The team settled on Minecraft, a video game that allows players to build their own worlds using virtual Lego-like pieces. For the past five years, UN Habitat has used Minecraft in its Block by Block program, which aims to encourage some of the poorest communities in the developing world to participate in upgrading their common spaces.

The program is a partnership between UN-Habitat, Mojang, the creator of Minecraft, and Microsoft, which owns Mojang. “It can be a challenge to mobilize people in slums — especially the youth — who are resigned to their environment and don't feel a sense of ownership,” said Westerberg by telephone from Kenya's capital, Nairobi. The traditional approach, using maps and drawings, often draws little interest from residents, he said. “But with an interactive design tool like this — I call it digital Lego — they are so engaged, and that makes the process more democratic,” he told the Thomson Reuters Foundation.

The Block by Block program was launched in Kibera, Nairobi's largest slum. It has since been used in about 50 locations in more than 20 countries including Indonesia, Nigeria and Mexico. Once UN-Habitat selects a site, a Minecraft model of the site is built using photographs, videos, maps and Google Street View, if it is available. UN-Habitat then holds a workshop. Residents are put into groups of mixed ages and genders, and given a laptop with the Minecraft model. —Reuters

## Virtual aide market a ‘wildfire’ at CES

**LAS VEGAS:** Voice-commanded virtual assistants packed into speakers and other devices will be a “game-changing” trend this year, Consumer Electronics Show researchers said Sunday. Sales of smart speakers are expected to nearly double in the US, to \$3.8 billion, from last year according to Lesley Rohrbach and Steve Koenig, researchers with the Consumer Technology Association, which organizes the annual CES trade event.

“That market is not just heating up, it is a wildfire,” Koenig said while discussing industry trends expected to play out at CES and globally in the coming year. “Compatibility with digital assistants has become table stakes (in the consumer electronics industry).” Being able to order items, select music, get information, and more by speaking to digital assistants such as Amazon's Alexa, Google Assistant, and Microsoft's Cortana has been such a hit that pressure will be on for more ways to interact with machines using voice, the researchers predicted.

At the same time, artificial intelligence will improve, with machines getting better at thinking like people, anticipating desires, and holding conversations instead of simply taking orders, according to Rohrbach. The CES show-floor was expected to be rife with appliances, televisions, vehicles, speakers, robots, and more augmented with virtual assistant software such as Alexa, Cortana, Google Assistant or Samsung's Bixby.

“We will truly be able to converse with our AI devices,” Rohrbach said while envisioning where smart speaker technology was heading. “AI is going to know you and you will be able to trust the device.” Behind the scenes, telecommunications service providers around the world will continue to roll-out fifth-generation, or 5G, networks capable of moving seemingly limitless amounts of data blazingly fast, according to the researchers.

## Startup unveils ‘car of future’ for \$45,000

**LAS VEGAS:** A Chinese startup unveiled its vision for the automobile of the future Sunday, promising to deliver an “intuitive and intelligent” car to global markets starting next year from around \$45,000. The electric-powered concept car shown by Byton at the Consumer Electronics Show in Las Vegas is touted as a computing device on wheels, equipped with a “digital” lounge featuring a panoramic display acting as a hub for navigation, entertainment and even monitoring the health of its occupants.

Backed by more than \$200 million from investors including Chinese tech giant Tencent, Byton—whose name was chosen to suggest “bytes on wheels”—is among the latest entrants to a crowded field of startups and established players looking to emulate Tesla in the race for a new kind of vehicle which can be adapted for autonomous driving. “This is a product which is tailor-made for the future, which is autonomous and shared,” said Daniel Kirchert, president and co-founder of the Nanjing-based startup.

Byton, led by former executives from Tesla, BMW, Apple and Google, said it expects to launch in China by 2019 and in the United States and Europe by 2020. “This will be the most advanced vehicle in the market as of 2019,” said chairman and chief executive Carsten Breitfeld, a former BMW executive, at a presentation in one of the first media events at the huge electronics show. The Byton car will use facial recognition to unlock and adapt to the driver and offer a range of other ways to interact including voice control with Amazon Alexa, touch and gesture. It will include 5G connectivity to the inter-



LAS VEGAS: Bellus3D Face Camera Pro, a 3D face scanning camera that can create 3D face models for applications such as eye wear, wigs virtual try-on, 3D virtual makeup, before and after results of dental/medical/cosmetic surgery, and 3D printing, is displayed during a press event for CES 2018. —AFP

Such 5G networks will be key to enabling machines such as self-driving cars to process sensor data quickly enough to make real time decisions, they said. “Clearly, we don't want self-driving vehicles to hesitate for even a millisecond, so we are going to need 5G,” Koenig said. Those higher speeds will also be necessary to “make virtual reality really wireless,” handle data used to manage “smart cities,” power augment-

ed reality, and even to channel the flood of high-definition video streamed online. “5G and AI are heralds for the coming data age,” Koenig said. Spending on consumer electronics devices and streaming services in the US alone was expected to climb slightly more than 3 percent this year to \$351 billion, with the number of “connected” devices in the country rising to 715 million from 671 million last year. —AFP



LAS VEGAS: The Byton connected car is seen during its launch at CES 2018. —AFP

net cloud and improve its functions with artificial intelligence. “It will improve your experience the more it knows you,” said Kirchert. While other concept electric cars have been promoted at prices of \$100,000 or more, the new Byton will face competition from the Tesla Model 3 and offerings from major automakers. Byton said the car will have a range of

more than 500 kilometers (300 miles) before needing a recharge and will be able to “top up” its battery in 15 to 30 minutes. It will be offered with “level 3” autonomy which enables some functions without a driver and be capable of “level 4” for near-autonomous function from 2020, according to the company. —AFP