



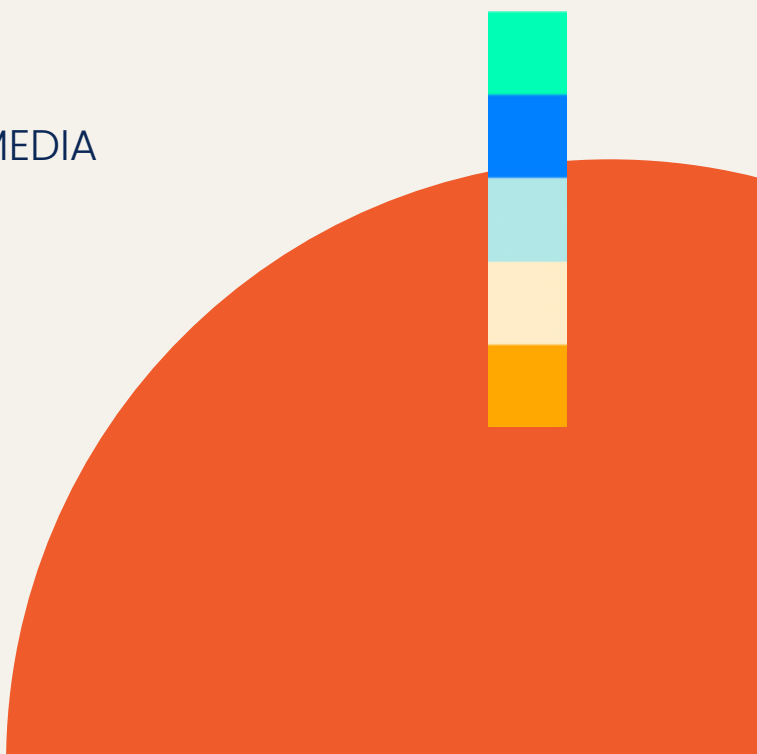
CES TRENDS & TAKEAWAYS

2021



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OVERVIEW

Given the events of the past year, CES 2021 was forced to adapt heavily. As a result, it became a show unlike any other in the trade show's history.

During the pandemic in 2020, technology took on an increasingly important role for most people and, arguably, accelerated opportunities for companies to introduce new technology-driven products and concepts. Many of those organizations doing so will be better positioned to capitalize on changes that will solidify and potentially accelerate when the pandemic eventually comes to an end.

Our review of the event looks at several categories, including consumer electronics, apparel, retail, financial services, automotive, travel, gaming, CPG and telecom & media. The most notable aspect was the widening availability of data to the extent there are commonalities apply to new products across all industries.

While this reality may be viewed as a positive trend for many marketers, our survey work illustrates concerns around whether data is taken away from a consumer's control.

Toward those ends, we continue to see the importance of tying brand-building efforts to data and technology. The trust developed over time with strong brands can help persuade consumers to try new products and part with information they would otherwise view as too sensitive to share.



CONSUMER ELECTRONICS

According to GroupM's LIVE Panel research prior to CES, 54% of respondents agreed, "it's important my household is equipped with the latest technology." For those individuals, there were many new product highlights building on the following trends:

- **Health & Wellness:** The BioButton™ provides continuous monitoring of vital signs to provide an early warning for COVID-19 among other conditions. While a separate product currently, it's easy to imagine this type of technology being integrated into smart watches in the future.
- **Assistance:** The U by Moen Smart Faucet has a voice interface to control the temperature and amount of water. Need ½ cup of warm water to make brownies? Just ask it.
- **Entertainment:** Television sets have long been a staple of innovation and this year saw a step-change with the introduction of Mini-LED and HDMI 2.1. In addition, while this might not be the year of VR, Sony released a Spatial Reality Display with 3D visuals that doesn't require goggles.
- **Companionship:** Pets became a hot commodity during the pandemic. Building on this consumer trend, the Moflin AI Pet Robot beat its Kickstarter goal by over 30X and won Best Of Innovation at CES with fluffy faux furball that develops emotional capabilities.
- **Conservation:** A number of technologies are on display this year to power devices without plugging them in including Shower Power a hydro-powered, Bluetooth shower speaker and Ambient's low light harvesting solar cells that could enable 'forever battery life' in the growing number of connected devices around our homes.

But perhaps the coolest product of them all was one you can't see at all. The Mojo Vision Lens, a contact lens that utilizes the movement of your eye for navigation with designs on eventually replacing your phone. While an innovation such as this one would likely be well-received by many consumers, the marketers behind such products will still need to be mindful that the sensitivity of data related to highly personal products will likely be particularly heightened.



54%

of respondents agreed,

"it's important my household is equipped with the latest technology."

Source: GroupM

APPAREL

While there were no particularly notable announcements among major apparel companies at CES this year, the sector's manufacturers have still had a growing relationship with consumer technology in recent years.

Apparel companies are helping to produce the fitness devices and machines that we use at home. Lululemon's recent acquisition of Mirror went somewhat under the radar last year. Still, it was a huge play in the world of apparel and arguably going well beyond prior efforts from their larger competitors.

More generally, as apparel brands become more like technology brands versus "fashion" brands, the implications for marketing choices from related initiatives are significant. These initiatives provide another reason for consumers to engage with brands and potentially provide brand owners with significantly better data on highly desirable consumers. The competitive implications could be significant, especially if some companies have more or better data than others.

We note that in our survey of consumers released immediately prior to CES, 60% of consumers said they had used fitness trackers and, of this group, 53% said they have relied on fitness/health trackers more during the pandemic; only 54% of consumers say they think their data should be shared with anyone other than themselves. Toward these ends, apparel manufacturers should be mindful that ongoing investments in strong brands will provide consumers with heightened levels of confidence that the company they are engaging with will be a responsible steward of the information a given device produces.



Source: WSJ



60% of consumers said they had used fitness trackers.

53% said they have relied on fitness/health trackers more during the pandemic.

54% of consumers say they think their data should be shared with anyone other than themselves.

Source: GroupM

RETAIL/ETA



As we dive into each new year, CES gives us a chance to celebrate the newest technologies that show the potential to make our lives easier and more connected than ever before. Historically, the show was relevant for retailers because these companies served as the primary distribution channel for manufacturers. In our pre-CES survey, 69% of consumers agreed with the statement that “I love to buy new gadgets and appliances”; however, the relevance of technology to retail now goes well beyond the products themselves.

Some of the news from the event this year featured e-commerce prominently. For example, Walmart announced a relationship with HomeValet, which provides temperature-controlled “smart-boxes” for grocery deliveries. General Motors announced a new business called BrightDrop that will produce e-commerce-optimized products, including electric delivery vans and electric pallets.

Beyond e-commerce, the actual shopping experience is also benefitting from technology.

Over time, augmented or virtual reality glasses will allow consumers to experience a store uniquely tailored to them. Consumers will have a new way to engage with the retailers they buy from and, when they do, they will be looking for personalized experiences and products.

Last year fundamentally changed the relationship between retailers and consumers, and those retailers need to invest to meet these evolved consumer expectations. In 2021, we will only see this trend continue, fueled by new technology and services. Retailers that have made these investments in the past will be the winners as we move forward through the year.

69%

of consumers agreed with the statement that

“*I love to buy new gadgets and appliances.*”

Source: GroupM





82%

believe only they or a family member should have access to health data.

Source: GroupM

Source: Digital Trends



HEALTHCARE

In a year dominated by a pandemic, broader health tech shifts—data-driven, personalized and with an emphasis on preventative care/wellness—have taken on new urgency in a time when access to doctors and healthcare has become far more challenging, especially given the limitations of video screens.

With this context, healthcare had a prominent presence at this year's virtual CES. We saw trends related to remote care alongside better integration of health and wellness capabilities into products not originally designed as pure-play health-tech.

Among the standout products announced, CareOS announced the Themis Smart Mirror, a mirror that doubles as a personal health and wellness assistant, performing skin analysis, temperature checks, gamified hygiene, smart alerts and fertility cycle reminders. Toto debuted new toilet-tech with their new Wellness Toilet, which uses “multiple cutting-edge sensing technologies” to scan a person's body and waste to recommend dietary changes.

Looking at remote monitoring and data collection, virtual care and other digital health solutions, companies including Philips,

Omron and HD Medical highlighted tools designed to allow patients and their care teams to monitor important biometrics.

For an example of health and wellness capabilities embedding into other products, biometric sensor maker Valencell showcased their new blood pressure monitoring sensors, offering “cuff-like accuracy” integrated into wearable tech on your wrist and fingers. While the tech isn't yet FDA-approved, there's a good chance our smartwatches will eventually offer frictionless blood pressure reading throughout each day.

While trends, tools and related technologies are exciting, data privacy and trust remain outstanding. There still are not great answers to the questions of who has access to your data, what they'll do with it, and how you can avoid losing control. And it matters – GroupM's survey showed that 82% believe only they or a family member should have access to health data. In comparison, only 7% believe the company that built the device should access an individual's health data. Data management and transparency will be critical for any brand looking to build trust in this incredibly personal space.

AUTOMOTIVE

Among automotive manufactures, GM dominated CES 2021. They used the virtual format to create #GMExhibitZero and successfully demonstrated how they were bringing the worlds of autonomy, electrification and AI into mobility experiences that will matter in the future. The aforementioned BrightDrop announcement addressed opportunities associated with the delivery economy. It was made tangible with the news that FedEx would buy 500 of the new electric fleet vehicles, scheduled to roll out in 2022.

More generally, electrification was a key topic of focus for the company. Concept vehicles from GM subsidiary Cadillac, including a flying taxi and an autonomous shuttle, were also noteworthy.

Many of these initiatives have been developed with an eye toward energy efficiency, an issue that has been an essential focus for manufacturers and consumers for many years. It will likely, however, take on heightened importance with the beginning of a new Presidential administration and a renewed global focus on the Paris Accord, which the U.S. is likely to rejoin.

Other efforts intended to reduce emissions were evidenced by the German start-up manufacturer Sono Motors, which displayed a new prototype of their solar-powered Sion EV. The vehicle, covered in Solar Panels, is intended to appeal to consumers worried about traditional charging concepts and is scheduled to become available at the end of next year. So far, the early-stage company claims 12,000 pre-orders for a vehicle designed to cost \$31,000 USD.

Component technologies were also exhibited at the event.

Upping the game for HUDs (“Heads-up Display” versus traditional dashboard displays), Panasonic Automotive showed off a new 4K-resolution AR HUD. With massive safety benefits, the offering covers a much larger section of the windshield than existing solutions. It mixes 2D information like vehicle speed, speed limit and fuel range in the near-field view with 3D overlays of navigation directions in the far-field view. Car and Driver reports the software is likely to be seen in a 2024 model vehicle.



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TRAVEL

The travel sector has been deeply affected by the pandemic. Last year's keynote from Delta Airlines created expectations of frictionless, more predictable and personalized travel experiences in the near-term; however, the industry has had to address a much more significant challenge instead.

As a new definition of safety is unavoidably part of the category, consumer preferences and stress points are entirely changed. Health monitoring, testing and telemedicine solutions will increasingly become part of the travel experience. As a result, travel is now much more reliant on developments in the healthcare sector. Toward these ends, CES 2021 unveiled some new products that may encourage travelers to fly and socialize safely.

These products included masks with air purifiers, built-in ventilation systems and even microphones. We also saw news of many general-purpose air purifiers, disinfection robots and lights intended to create cleaner and safer social environments at airports, hotels and restaurants.

Rapid testing solutions were notable, too. FDA-approved BioSticker COVID-19 symptom monitoring, and Clear Health Pass were

highlighted as tools that can quickly clear the status to fly or stay in a hotel.

While there are still barriers to getting consumers comfortable with travel again, consumers' desire to leave, explore, learn, unplug and experience the new and unknown hasn't changed. It may just be starting to change form.

GroupM's survey released prior to CES indicated that 71% of consumers are interested in virtual travel experiences, such as visiting a museum or city virtually. In a world where physical travel returns to pre-pandemic levels, perhaps this indicates hybrid forms of exploration and experiences will become increasingly common. Toward these ends, wider deployment of 5G services and devices may help, as illustrated by commentary from Verizon during that company's keynote.

For marketers, there is a range of considerations that follow. While the pandemic will eventually pass, well-being will remain a priority. Transparently embedding disinfection, healthcare, testing and monitoring solutions into consumers' journeys will be vital to sustaining confidence. Looking for ways to embed virtual experiences with real ones may also help to build or reinforce travel-related brands in years ahead too.



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Source: GroupM

FINANCIAL SERVICES



“
Empathy
is the new black.”

Lou Paskalis

SVP Global Communications Strategy
and Media Investment, Bank of America

Finance is one of the last frontiers of disruption for technology, although the pandemic has accelerated the adoption of fintech and newer payment services.

At CES 2021, while one might assume that fintech would circle transactions, efficiencies and technology, the industry’s event participants were seemingly much more focused on empathy, morality and inclusion.

While there were no significant new announcements, Lou Paskalis, Bank of America’s SVP Global Communications Strategy and Media Investment, said on a panel that “empathy is the new black.” He indicated that, in the absence of in-person interactions, banks should rethink their relationships with customers. Instead of looking at data as mere signals, it is important to focus on the human motivations behind them.

Other concerns were articulated by Catherine Cole, the U.S. CEO of Binance, a cryptocurrency exchange, who said, “Privacy is a privilege people realized they have as they build their digital assets,” and that protecting the digital lives of our consumers is a joint effort by the government and companies. In her view, consumer protection is not about humans versus AI, but good versus bad AI.

On the topic of inclusion, other companies participating in CES, like PayPal or Plaid, see themselves as helping solve a lack of access to financial services for communities who have been historically disenfranchised.

Moving forward, Financial Services will hold more responsibility beyond just protecting people’s money. Along with regulatory bodies, institutions and emerging players will be accountable for inclusion, security, and education as people’s financial lives become increasingly digital, less transaction and more personal.



“

The broader implications of more powerful hardware and better, more realistic software are essential for marketers to consider.

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GAMING

CES isn't traditionally the place where game developers and publishers make big announcements; it's usually the time for companies that make the parts that power the computers or consoles to come out and shine. Developers of processors, graphical cards and computers announced improved products, which should broaden the availability of more powerful devices to a greater number of individuals.

Beyond the hardware, with 2020 seeing an uptick in new gamers, CES 2021 was an excellent opportunity to give a peek underneath the hood of what the future of gaming holds.

The timing for several game releases for Sony's PlayStation 5 was announced as well, including Kena: Bridge to Spirits (scheduled for March 2021), Ghostwire Tokyo (scheduled for October 2021), Square Enix's Project Athia (January 2022) and Capcom's Pragmata will now be released in 2023.

However, the more important news of the week—undoubtedly timed to CES, even if not directly part of the event—came from other video games publishers. Ubisoft and Disney's Lucasfilm division announced that Ubisoft will

develop Star Wars games, ending the exclusivity previously enjoyed by EA, although EA is still expected to develop new titles. Separately, Bethesda Softworks, which Microsoft acquired in September 2020 for \$7.5 billion, announced its own news with Lucasfilm, tweeting that it would develop an Indiana Jones title.

The broader implications of more powerful hardware and better, more realistic software are essential for marketers to consider. Specific new marketing opportunities may emerge, to be sure. Still, more generally, to the extent that consumers spend more leisure time with gaming, the harder it will be to reach consumers in traditional places.

On the other hand, a necessary counterpoint is that, as traditional media is consumed less, strong products, brands and product distribution become increasingly important factors for marketers of all kinds to consider.



P&G made up for lack of physical presence with the LIFELAB. With this immersive digital experience, attendees could create their avatar, interact within virtual showrooms and even chat via their computer mic. New products on display included the Oral-B iO Electric Toothbrush, Microban 24 Hour Home Sanitizer range and the EC30 Single-Dose Cleaning range, illustrating a focus on consumer health and environmental sustainability.

Beyond the goods themselves, changes to the related consumer purchase experience have been prevalent in the past year, and many efforts to improve current conditions were demonstrated at the event.

IBM's Bob Lord recalled how their Call for Code initiative led to developing an app that safely enables users to visit physical storefronts while ensuring social distancing. Wayne Liu of Perfect Corp. offered insight into technology that allows consumers to trial beauty products through AR overlays while speaking with a retail assistant over video chat.

Michael Suswal from Standard Cognition illustrated how their 'Cell Phone to No Phone' approach to contactless checkout allows for tracking movement of goods in and out of the store environment, allowing customers to enter, purchase and exit in a matter of seconds. Consumers want to see less friction in their buying processes and brands are likely to benefit when testing and implementing similar technologies.

More generally, brands on CES panels tried to convey their efforts driving or contributing to social change.

Mark Pritchard's Spotlight Session message was centered around supporting consumers and bringing societal change through constructive disruption, such as extending their responsible media supply chain and the introduction of 'The Choice' campaign. However, as Gabby Cohen from DTC razor brand Harry's put it, "working backward, it's really hard to develop a social mission that's innately connected to the customer experience" and that it "has to be part of the fabric of the organization, and not a side hustle." CSR will undoubtedly be a key pillar of packaged goods companies' go-to-market strategies for this year and beyond.



Brands on CES panels tried to convey their efforts driving or contributing to social change.



TELECOM AND MEDIA

Verizon kicked off CES with a presentation focused on the 5G services they offer. As we noted in our recent survey of consumers, a majority of them believe they already have devices capable of receiving 5G connectivity. While actual sales of products are well below this threshold, it won't be long—next year, perhaps—before it is an accurate figure.

With the very real expansion in bandwidth and reduced latency that 5G enables, new brand experiences will be enhanced over time, at least to the extent that brands invest in related opportunities. More broadly, there were not any non-incremental investments relevant to the telecommunications services business.

CES was more significant for device introductions, as illustrated by “rollable” and “foldable” phones at lower, more realistically scalable prices than those announced in prior years.

Such flexible screens may ultimately be more meaningful as price points fall, as they would make a broader range of video experiences more portable and more ubiquitous, especially if tied to 5G services.

As for content, significant announcements did originate from the conference, although Netflix did use the week to announce—outside of CES—a massive new film release slate for 2021.

The use of devices and services by consumers can be driven by access to content, whether developed by studios, marketers or other consumers. While none of this content will explicitly require access to 5G or a foldable or rollable phone, as consumers find they may want to consume more content in more places, incremental purchases of these inter-related services and devices may follow.



51.5%

of consumers believe they have a 5G device such as a mobile phone that can connect to a 5G network.

Source: GroupM

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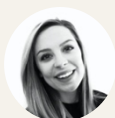
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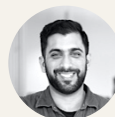
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