



CES 2021 Report

Tech Delivers (When It Mattered)

Chick Foxgrover, 4A's Creative Technology + Innovation

CES 2021 – From Leader to Follower

CES is the New Year celebration for followers of technology trends and predictions of consumer behavior.

The expansive trade show provides a more comprehensive view into the ways technology is integrated into society, from visions of smart cities and the future of digital transformation of business, to how the government is involved in promoting and regulating technology.

CES plays a role in technology planning for many industries and is a chance to sum up the past year and to look ahead. What investments were made, what advances in technology made a difference, and which major manufacturers made bets against trends and competitors takes center stage at the annual event. Most importantly, visions for the future help shine a light on where the industry is headed.

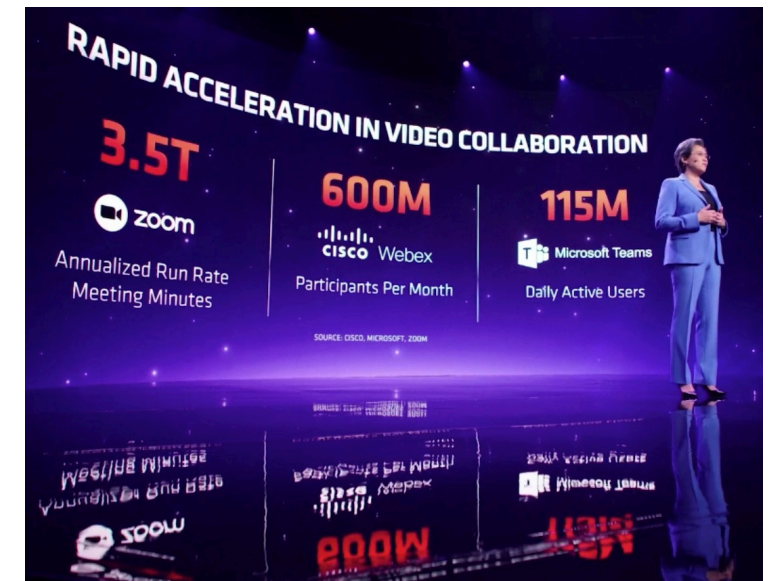
January 2021: A different World.

But this year, with the pandemic and the turn inward to the home, important trends in

consumer and business technology use cases and developments were already in full swing.

Potential CES revelations were overwhelmed by the acceleration of actual digital transformation that had begun months before:

- **Screen-based interactions for business, education and almost any purpose were practical challenges, not the stuff of exploratory innovation.**
- **Digital exercise equipment, digital health monitoring and management became simple common sense several months ago.**
- **Sales of PC laptops rebounded from a long-standing decline.**
- **Media consumption shifted too to streaming services, YouTube, gaming and Twitch.**
- **CES like everyone else, shifted its focus to the new services and behaviors that have emerged in the last nine months.**



CES 2021 Technology delivered when it mattered

Normally we would have escaped everyday life for the outsized, immersive environment of Las Vegas and the excitement of the industry celebrating the achievements of the last year of R&D, new designs and new tech superpowers. But not this year. This year we're doing it between chores, in pajamas, while answering emails, or just trying to keep the kids and dogs out of the metaverse.

Even more important — current affairs, much of it driven by the very technologies CES and our culture have celebrated for a decade, have now put us in a tense and reflective state.

Despite all the challenges of 2020, many of the triumphs celebrated at CES over the years delivered when it mattered. WiFi and broadband performed incredibly well, video conferencing, file sharing, web-based productivity apps of all kinds were ready for their close ups.

The advanced technologies like **AI** and **5G** are already in place and ready for wider application.

Companies and brands are facing the swift currents of needs and concerns of customers. There is much to look forward to and much to think over.

Those companies with strong technology programs and skills were much better equipped to meet the moment. This lesson has not been lost on anyone in business.

Technology provided the practical platform for everyday life during the pandemic and many of those individual and family behavior patterns will persist. The ability to respond quickly to new challenges has proved to be an essential success driver for any organization.

The desires and demands for clarity and transparency on how technology manages the tools we all depend on will also provide

focus for the industry going forward.

With the eventual retreat of the pandemic we may discover a newfound sense of amazement and appreciation for others and the world we live in.

Technology and science move on. There are delightful advances and products to celebrate and desire. But as **Brad Smith of Microsoft** quoted in his CES keynote, “technology doesn't have a conscience.”

How WE decide to embody our conscience in how we live and build our institutions is now the question before us. That, and the role these mighty companies should play in the world to come...



CES 2021

Insights and takeaways

- CES 2021 highlighted many technologies that will matter directly to the home-bound family engaged in a wide array of digital interactions for work, education and entertainment.
- The consumer is hungry for improved digital experiences and with the swift mass adoption of new digital habits, media consumption, purchasing, and communications will even more demanding and align quickly towards best-in-class user experience.
- Consumers are looking for technology that promotes personal and community health.
- When it comes to Automation and AI, expanding and challenged businesses alike are moving quickly to find and implement technology that promises near-term efficiency and productivity, but also long-term sustainability
- Media businesses have enormous opportunities to bring new experience technology that can meet the need for novelty and stimulation to replace travel and gathering. Habits and tastes have formed around a much wider array of digital entertainment and commerce interactions during the pandemic will persist into the post-pandemic future.



Sony Corp.

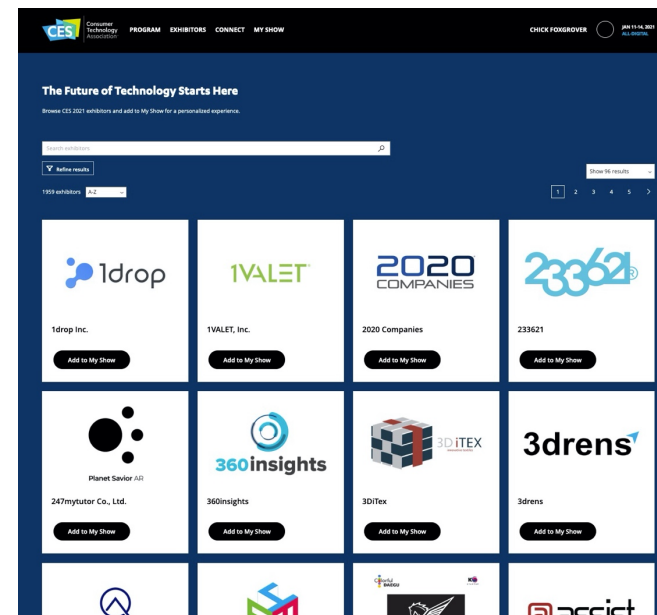
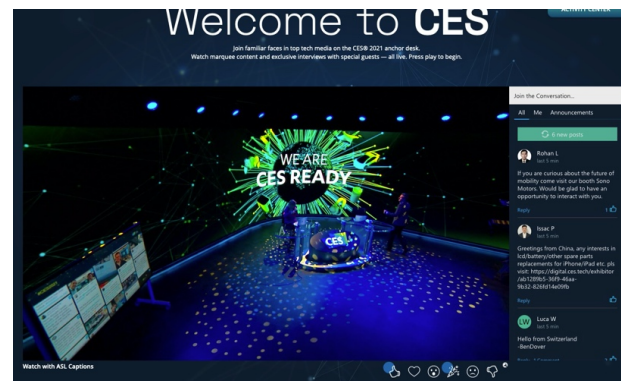
THE CES Experience 2021

A for effort, B- for effect

The keynote videos were beautiful but couldn't really be expected to generate the same kind of feeling of the massive stage projections CES is capable of and the exhibitors' pages were standard one-page web-brochures.

Exhibitor listings made no attempt to give you much of an idea of what was behind any brand you weren't already familiar with.

The central hub allowed a view into the social media activity.



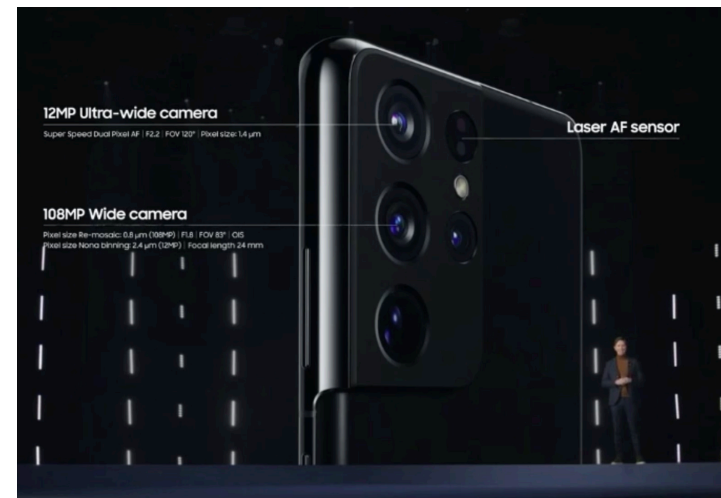
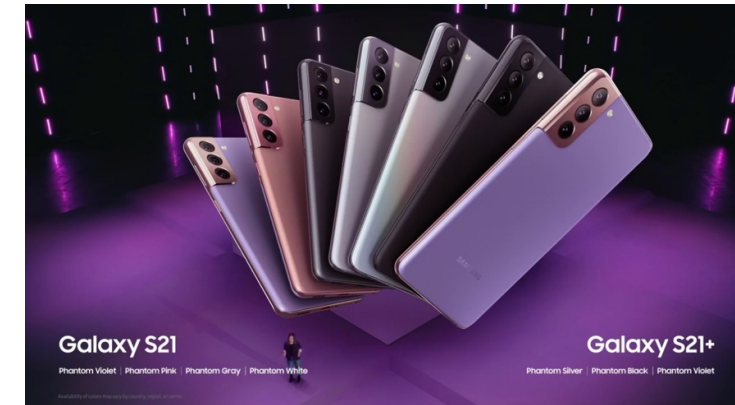
THE CES Experience 2021

Samsung builds a world around the phone

Samsung exemplified what is possible today with a virtual presentation in a beautiful virtual environment for their presenters to inhabit.

Usually Samsung presents an expansive universe of digital living in their keynote presentation, but this year used the introduction of the **Galaxy S21** as the centerpiece taking up most of the streaming presentation.

They introduced a beautiful new UI to better compete with Apple's iOS and the high-end Ultra 5G with a extraordinary set of cameras and software features that may dethrone the iPhone 12 Pro Max.



P&G LifeLab

Back again, Zoom & Avatars

P&G has made CES a priority for the last two years and came back again for the virtual version, which for some, was disappointing. The products they're developing are moving forward but without the **LifeLab** setting the products failed to deliver much excitement.



P&G did create a VR version of the LifeLab but there was only a short video to experience. More at [Fly through](#) and the LifeLab [site](#)

TV or Monitor

Looking forward to convergence

Screen technology keep moving forward to new heights of clarity, size and immersiveness. Check out any of the major vendors and there are wonders to behold. And since work, family and entertainment have all moved in with you, there is every reason for consumers to look into upgrades.

In addition, TVs and monitors are packing more technology every year. Computer monitors are promoting new features to complement the now daily use of video conferencing. From 5 megapixel cameras, Microsoft Team buttons to even Windows Hello Facial recognition log-in.



Much praised – Dell 40in curved monitor. More immersive gaming and business command center monitors are showing up in all manufacturers' catalogs.



Many newer TVs now have image recognition AI that can figure what programming is running, contextually enhance the picture and sound or deliver programming recommendations and soon addressable ads, and as WiFi connected devices could have more presence sensing abilities.

As we move from room to room at home (or office), the screen is our portal to the current version of the metaverse where life takes place. In many ways there is little distinction, and one day screen configuration and management for both will be the same.



The Dell line up

Rolling Screens

[TCL](#) showed a scrolling screen and confirmed they'd release a rollable phone this year.

[LG](#) showed a rolling TV screen last year and produced a prototype of a phone with a rolling screen for this year's show.

While folding screens and phones were launched last year, this is the year of the rolling screen that may eventually prove more practical and popular.

Critics point out that it's the same technology and with the same current limitations, mostly fragility.

Some years away, but the trend is very intriguing.

TCL confirms it will launch a rollable or foldable phone this year

By James Rogerson · 4 days ago

And shows off its rollable concept



(Image credit: TCL)



LG prototype CES 2021



TCL's prototype phone with a rolling screen. VIDEO: TCL



TCL demonstration video



Rollable medical scanner in Star Trek Beyond 2016

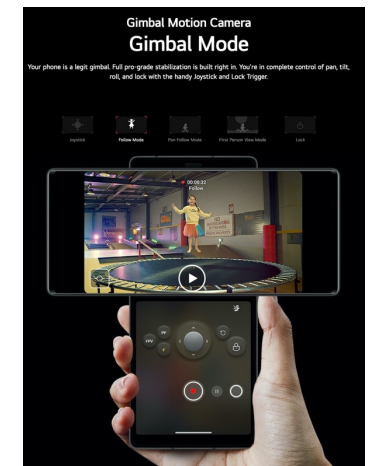
LG Wing

Real Innovative Design

At the 4A's, we've talked about how the creator/consumer on social platforms best exemplified by TikTok and Snapchat has become an important contributor to the media ecosystem. One only needs to remember the [@420dogface208](#) and Ocean Spray connection championed by Gary V to understand (more on this heartfelt story [here](#)).

Given the importance, content creators would be pleased to hear about LG's announcement of its **Wing** phone that allows you to flip the screen horizontally for viewing horizontal video. This seems to still be desirable despite Snap's attempt to sell humans on the viability of vertical video which still feels like you're looking at the world through picket fence,

But the genius of the Wing lies in the Gimbel and other video shooting modes that allows creators to shoot videos in motion and create effects all with in the phone camera itself, while holding the camera naturally in one hand with the horizontal screen as the camera lens.



Super Cars 2021

Sony, Sion, GM

Sony's Vision-S Tesla model seems to be getting closer to reality with much-viewed road test videos hinting at advanced features like gesture control, 5G and 360-degree sensor awareness.

The Sion Electric car can charge normally but also has solar panels built into the body that can add enough power for 20 miles of driving each (sunny) day.

Much of the press was surprised to see the announcements from GM this year, whose announced prototypes are real achievements in functionality and beauty.

The Halo car follows the pattern of autonomous people movers in very great style and the

But more readily important was an entire digital delivery ecosystem called Brightdrop, complete with a 250-mile range EV van and touch-directed "propulsion-assisted" delivery box, and mobile management services.

Sony Vision S



Sion Solar Electric



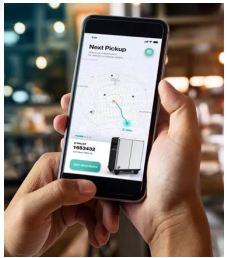
Cadillac Halo pod car concept

Cadillac also dove into the world of pod cars with its Halo concept.



GM BrightDrop EV600 van concept

This battery-powered commercial van is sure to get couriers and delivery companies all hot and bothered. It promises 600 cubic feet of storage, in addition to proper technology like motion sensors, traditional driver aids and a 13.4-inch infotainment screen.



A's

Cars 2021- Interiors Rule

Interior environments with designs for comfort, expansive digital views of real and imaginary spaces, seem to fit our spaceship-like passenger pandemic existence. We may as well be on our way to Mars and be comfortable and entertained doing it. Tesla and countless prototypes led the way and now car interiors are fulfilling our visions. Marketers and video artists can hardly wait for the opportunity to create for these spaces.



Sion Solar Car Interior



Sony Vision S



Cadillac Halo Pod Concept



Mercedes Digital Dash

5G and WiFi 6e

Steady progress

Whereas **5G** has been the big news in communications for the last couple of years, sales and deployment of 5G services is moving about as fast as many critics said it would. And like some other technology such as **VR**, we're likely to see the first commercial successes in the infrastructure and manufacturing sector.

That said, new phones are released as 5G ready and make up an increasing amount of the somewhat depressed sales of smartphones in 2020.

Perhaps bigger news was the [announcement](#) of **WiFi 6E** standard certification using the 6GHz airwaves added to the 5GHz and 2.4GHz used now. This is the first really big change to WiFi in 20 years and will provide better speeds. Not all countries, however, have signed on and you still need compatible devices to take advantage, so at this point buying in means future-proofing. But Samsung's new S21 is WiFi 6E ready and the manufacturers are ready to release millions of new devices this year. With all of these upgrades on the horizon, remember to add WiFi upgrades to your 2021 home tech budgets.



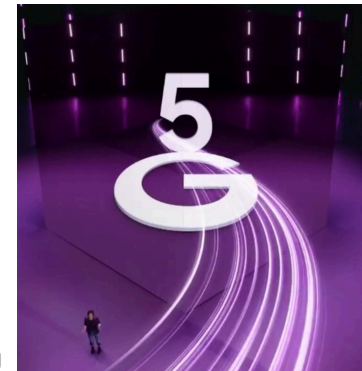
LinkSys WiFi6e Router



Wi-Fi CERTIFIED 6™:
Worldwide Wi-Fi 6E
interoperability



Netgear Nighthawk RAXE500



Samsung

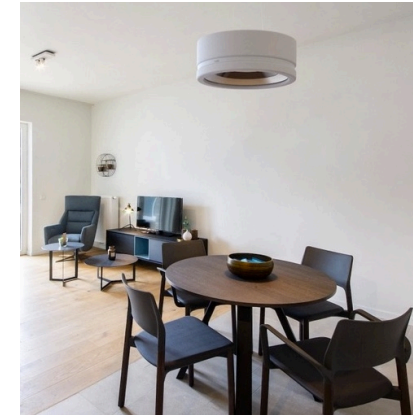
Smart Home in a Pandemic

Safety first sensing

Smart home tech sales were steady in 2020 but new directions were promoted at CES 2021 that focus on the healthcare potential of this tech in order to meet the more pressing needs of people now stuck at home during a pandemic.

WiFi sensing is a technology that allows the WiFi signal to detect motion and gesture in the air. Networking vendor Linksys won an innovation award for its WiFi 6E mesh system that can distribute its subscription-based WiFi sensing capabilities to other devices on the network.

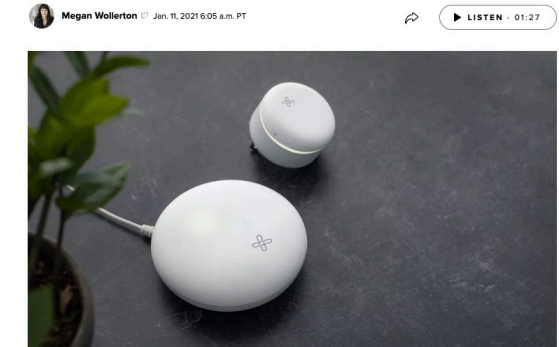
Very useful for falling alerts and home security, we may see the use cases expand to gesture based interfaces that complement voice and the dream of the hands-off home controls.



Nobi lamps can detect falls and alert others

Origin's Hex Home security system analyses motion with simple sensors

This system claims to monitor your whole home with just a couple devices.



Origin Hex Uses WiFi Sensing for home security

CONTEXT USAGES: RADAR-BASED, RANGING-BASED, SENSING-BASED

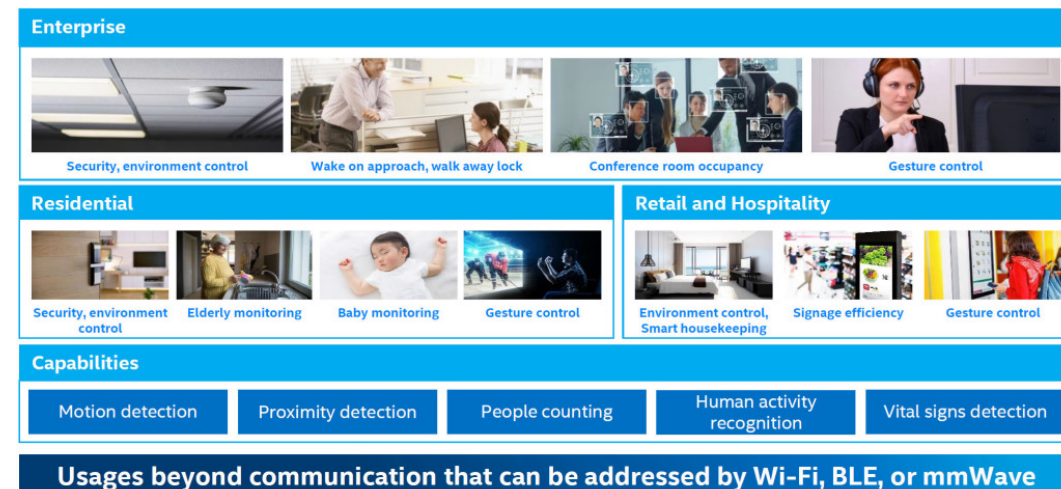


Chart: Intel

Smart Home in a Pandemic

Safety first

Devices and sensors that measure and purify air quality were also a big trend at CES this year. **CleanAirZone** uses enzymes to clean the air and **OneLife** has a washable filter with ionizing technology. **Airthings** tracks other interior environmental properties that factor into virus transmission such as CO2 levels, humidity and temperature.

Temperature sensing cameras that have been available for some time are now being built into home tech to help keep everyone safe



OneLife's X air purifier



CleanAirZone



Ettie Temperature-Taking
Video Doorbell

Cool things 2021

Even this year there were some very desirable things to look forward to... and a couple are even available!



Razer Transparent masks



Ampere water-powered blue tooth shower speaker



Razer Gaming Chair – NOT available soon!



Cadillac Evtol Flying Car



JLab JBuds Clip-On Bluetooth Speakers



LG Transparent TV Screen

A Readable CES 2021

1. [CES 2021 Highlights: 79 Top Products, Photos, and Announcements | WIRED/](#)
2. [CES 2021 Virtual Floor Tour | MDC & Stagwell on Vimeo,](#)
3. [From touchless to high-tech, the smart home at CES 2021 reflected the times - CNET,](#)
4. [Dell Elevates The Work From Home Experience At CES 2021,](#)
5. [The best monitors of CES 2021: Acer, Dell, HP, Viewsonic and more | Tom's Guide,](#)
6. [These are the WiFi 6e routers announced at CES 2021,](#)
7. [Wi-Fi sensing adds motion detection and gesture recognition to your wireless network | VentureBeat,](#)
8. [The 15 Best Devices From CES That You Can Buy Now ,WIRED,](#)
9. [Amazon,'s newest product lets companies build their own Alexa assistant for cars, apps and video games | TechCrunch, /](#)
10. [Fitness-tech-at-ces-2021-has-smart-yoga-mats-for-relaxing-and-a-sports-wall-for-punching,](#)
11. [CES 2021: Here's a better look at Sony's Vision-S electric car | TechRadar,](#)
12. [TCL confirms it will launch a rollable or foldable phone this year | TechRadar,](#)
13. [GM goes all-in at CES 2021 with air taxis and EVs galore](#)
14. [Presenting the Best of CES 2021 winners! | Engadget](#)
15. [The Tech That Will Invade Our Lives in 2021 - The New York Times](#)
16. ['Immersive' LifeLab Experience Enables P&G To Show Off Products,Technology,](#)
17. [Samsung Introduces a One-Stop Shop that Curates Every Step of Your Cooking Journey ,Samsung Global Newsroom,](#)
18. [L'Oreal's Technology Incubator Releases Two Innovations At CES 2021,](#)
19. [Air purifiers at CES 2021 are getting smaller, smarter and more innovative than ever - CNET,](#)
20. [These are the WiFi 6e routers announced at CES 2021,](#)
21. [CES: Young Streaming Players Philo, Pluto TV See Growth, But Uncertainty Remains](#)
22. [Best TVs of CES 2021: Brighter OLED, Mini-LED QLED, 8K and HDMI 2.1 - CNET,](#)
23. [CES 2021: Best New Products, Releases, Reviews, TVs, Speakers, Laptops - Rolling Stone](#)
24. [CES 2021: All the announcements that matter,](#)
25. [LG will demo a 'bendable' OLED gaming TV at CES 2021](#)

CES 2021 Report 4A's Creative Technology & Innovation

A publication of the 4A's

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

