Title: Top 5 Digital Health Technologies Making Waves at CES 2021

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The <u>Consumer Electronics Show (CES)</u> hosted in Las Vegas annually by the <u>Consumer Technology Association (CTA)</u> has been at the forefront of breakthrough <u>technologies</u> for decades. Taking the events of last year in stride, CES was produced virtually in January 2021 and the vast display of <u>health</u> and wellness focused technology did not fail to impress! Here is a list of the Top 5 <u>Medical Technologies</u> debuted in the 2021 show, that grabbed our attention!

1. Mask Up! An uber cool twist to staying safe.

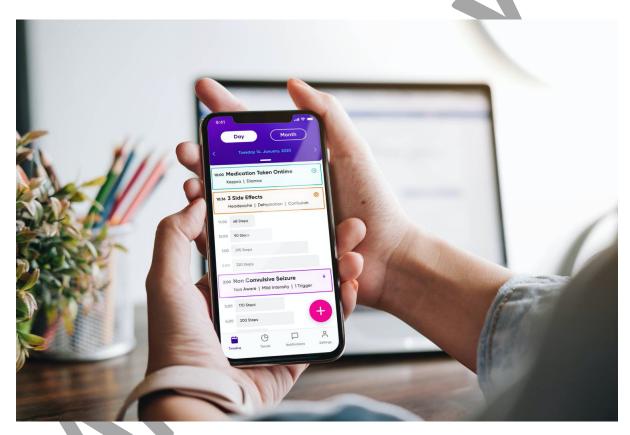
In addition to the protection that it offers, face masks have become a versatile fashion staple. Technology then stepped in and gave it an interesting edge. Razer, a company most known for video game products, revealed their "smart mask" called Project Hazel, which is transparent, has an inbuilt filter for air circulation and ventilation with high bacterial filtration efficiency, as well as a built-in microphone to amplify and clarify speech from behind the mask. The most impressive feature is its wireless charging case which is lined with a UV light to auto-sterilize the mask while it charges.



2. Bringing Calm to Chaos. Epilepsy management, anytime, anywhere.

"<u>Epsy Health</u>, is a free epilepsy management app, that was awarded two CES Innovation Awards at this year's show: the "Best of Innovation Award" for the **Health and Wellness** category, and an "Innovation Award" in the Software and Mobile Apps category."

Available in Android and IOS versions, the application helps patients suffering from epilepsy to track their seizures and medications. Changes in seizure patterns are also analysed which can help the physician and the patient accurately identify triggers like mood, diet or sleep on their condition. The application has already received rave reviews from over 10,000 users, with a 4.8 star rating in app store and Google Play. 93.4% of patients using the app said that it helped them to improve their compliance to medication. As a bonus for neurologists or epileptology specialists who use the app for their patients, the company also provides access to the Epsy Hub, which gathers patient information in a single web based platform, to give them paperless records of individual patients. These reports can be analysed to track patient progress and can be shared with colleagues easily for holistic care approach.



3. Prevention is Better than Cure. At home patient monitoring, the smart way.

Omron Healthcare created the <u>Vital Sight</u> in its effort to "<u>Go for Zero</u>", a campaign that aims to reduce the incidence of heart attacks and strokes through preventive care by regularly monitoring patient statistics like blood pressure, heart rate and weight. The Vital Sight kit comes with a smart blood pressure monitor and a smart scale. Readings taken on both instruments are auto captured through the application and can be transmitted easily to treating physicians to be added into electronic medical records. Regular monitoring helps to catch variations early and intervene before its too late, acting as an early predictor and preventive measure for cardiovascular disease. The system can also be automatically connected to a clinical

emergency medical response service, where abnormal readings can trigger responses or alerts.



4. Is beauty only skin deep? A Smart Mirror that shows more than just a pretty face.

Themis by Baracoda (Care Os) is a connected smart mirror that was declared the winner of the CES® 2021 Innovation award. It acts like a personal wellness assistant, providing skin analysis, smart alerts for visible health effects like pallor or redness, fertility cycle reminders, temperature sensor, face and product recognition and voice command all with a fun user interface. It links seamlessly with other smart devices like a smart scale or ECG tracker, as well as linked with its own smart phone application to provide analysis of daily trends. It's added bonus for the make-up enthusiast in the family, are in built make-up and hair tutorials that can be played on the mirror surface itself.

(Video showing the mirror in action- taken from their press package- double click to play) Can be uploaded directly in the blog, or through this link: https://www.youtube.com/watch?v=8aTVc4nQRks)

5. Smart Lamps Light the path to fall prevention.

Nobi has created a smart lamp, that is programmed with sensors to detect patient falls. Incidents will trigger an alarm that alerts care givers or family members, in order to improve response time to the delivery of emergency care for senior citizens and patients with disabilities living independently or in facilities. According to the US Centers for Disease Control and Prevention, one in every four people above the age of 65 years, fall every year. An older adult is treated for falls once every 11 seconds in emergency rooms. This has resulted in more than 2.8 million injuries and around 27,000 deaths, making fall prevention a health concern especially for the geriatric population.

Along with its successful launch at CES 2021, the Nobi Smart Lamp also won the prestigious Henry Van De Velde Award for Business Innovation and Consumer Design.

Conveniently masked as an aesthetically pleasing, modern lamp design, Nobi's artificial intelligence algorithm controls its sensors, that are able to detect movement patterns in a room. These motions activated sensors are activated if a patient wakes up in the middle of the night and lights up to improve the field of vision. If the sensor detects a fall, it will ask the patient to confirm if they are alright and if it fails to get a response, it sends an automated alarm to a programmed contact, failing which an emergency service is alerted. In addition, it seamlessly integrates with other smart devices like scales or blood pressure monitors, to give a holistic analysis to healthcare providers. Its safety features also include an inbuilt smoke alarm and air quality indicator.



The increased focus on home monitoring and fitness tracking devices is an indicator of the widespread increase in **health** awareness in the community. The demand for **wellness management technology**, from **smart phone applications** to wearables and remote patient monitoring devices shows that people are ready to take their health into their own hands. The boom in **telehealth** services also shows an enthusiastic response to the adoption of **digital health technology** and we can expect to see newer and smarter innovations coming our way in the near future, when science fiction is on a fast track to becoming reality!

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