

Healthcare Market Updates



TMX	15
CHK	
AAPL	+2.35
PRTG	+0.14
AMZN	-0.73
TSLA	+1.08
AVGO	-0.87
SIRI	-0.65

Weekly Newsletter
Issue 42
22nd March, 2019

Table of Contents

Category/ News Heading	Page No.
Wearables	3-8
Omron gets long-awaited FDA nod for combined EKG-blood pressure monitor	
Withings to add apnea detection to sleep mat	
Huami steps up efforts in R&D of digital healthcare products	
Fitbit introduces budget-friendly line of wearables for kids and adults	
University of Michigan using Apple Watches to build clinical data pool for health research	
Mobile Phones/ mHealth	9-13
Algorithm uses smartphone camera, flashlight to spot diabetes	
Through AI text chats, Sopris Health's new app saves time on clinical documentation	
Mount Sinai spinout OOVA gets \$1M for fertility testing kit	
Virtue, TestCard and ExSeed join Novartis & Wayra UK health tech accelerator	
BACtrack launches remote monitoring app for alcoholism	
Opinion: Four digital health predictions that transpired at the Mobile World Congress	
Smart Home Devices & Appliances	14-19
Biophilia and the Reason Smart-Home Pros Can Own the Wellness Category	
Amazon could soon force you to go on a diet, according to one futurist	
Other Interesting Articles	











Wearables

Omron gets long-awaited FDA nod for combined EKG-blood pressure monitor – March 21, 2019

Applicable Product Categories:

Wearables

 Technologies	Wearable (Device + App)	 Therapeutic Areas	Chronic Condition Monitoring (Cardiac Health and comorbidities)
 Applications	Remote Patient Monitoring	 Geographic Focus	Global
 Segment Focus	Clinical Grade	 Topics (News type)	Competitive Intelligence
 Companies	Omron	 Others	AliveCor

ANALYST TAKE:

Synopsis: Omron has apparently finally received FDA 510(k) clearance for its Blood Pressure Monitor + EKG device, which was originally announced in January 2018 at CES. The device was created in partnership with AliveCor. This is a separate product from Omron's HeartGuide watch, which also incorporates AliveCor ECG technology and was announced at the same time.

Value Proposition: the Blood Pressure Monitor + EKG offering is a home monitoring device that purports to be the first to measure for both high blood pressure and atrial fibrillation, two different risk factors for stroke. Weighing just over a pound, the device displays readings on a screen and can also send them to the Omron Connect app. According to AliveCor's website, its Kardia Mobile device can also now integrate with the Omron Connect app.

Frost & Sullivan views this as a good milestone for the home BP device leader to revitalize its product portfolio with new generation of data-driven integrated digital health solutions, while still maintaining industry gold standards. Frost & Sullivan also views this partnership as a win-win move for AliveCor, considering likely counter impact of existing collaboration with Apple post FDA's approval for Apple's ECG feature. Omron and AliveCor collaboration can prove to be more synergetic given the device vs. data application expertise of these two companies. It will be interesting to see the go to market strategy for the new FDA approved device (i.e. D2C vs. Reimbursement).









End-Users: Hospital, Cardiac Rehab, Consumers

WEBLINK: <https://bit.ly/2TUA6T6>

Withings to add apnea detection to sleep mat – March 21, 2019 (1/2)

Applicable Product Categories:

Wearables

 Technologies	Wearable (Device + App)	 Therapeutic Areas	Sleep Health; sleep apnea
 Applications	Remote Patient Monitoring	 Geographic Focus	Global
 Segment Focus	Consumer Grade	 Topics (News type)	Competitive Intelligence
 Companies	Withings	 Others	Apple-owned Beddit

ANALYST TAKE:

Synopsis: French digital health company Withings has announced its sleep-tracking mat will receive a free update by the end of 2019 to include detection of sleep apnea, a breathing disturbance that can cause cardiovascular issues and depression if left untreated.

Industry Challenge: Insufficient sleep has major health and safety consequences for all age groups. Based on industry estimates, about 9% of women and 24% of men in the middle-age population are affected by obstructive sleep apnea. As per the American Sleep Association, untreated sleep apnea in middle-aged adults costs \$3.4 billion a year in extra medical costs for the United States. Additionally, an overnight **sleep study** test, or polysomnogram cost may range from \$500-\$3,000. Entailing this, low cost and patient-centric wearable sleep monitoring solutions provide a compelling benefit.

Withings to add apnea detection to sleep mat – March 21, 2019 (1/2)

Value Proposition:









- The Withings Sleep is a multisensory sleep tracking mat that sits under your mattress and records movement, tracks heart rate and detects snoring to help users get data on their overall quality of sleep including how much light, deep or REM sleep they have each night. The update will combine measures of respiration, heart rate and movement to alert the user to a possible breathing disturbance while they sleep.
- The feature builds on the Withings Sleep's primary function of monitoring sleep cycles, heart rate and snoring, and then displaying scores and suggestions to users through the companion Health Mate App. The breathing disturbances feature uses respiration rate, heart rate, motion and snoring to log any events through the night. These disturbances are chronologically mapped, rated from high to low and accompanied by educational content related to breathing disturbances that may need professional care. The app also provides educational content so you can learn how these disturbances impact sleep, blood pressure, fitness, and weight, and seek proper medical care if needed.
- Those with the Withings Sleep can update their device with breathing disturbances tracking starting today, through the Health Mate iOS app. Withings sells the Withings Sleep for \$99.95 on its website and on Amazon.
- After the recent ordeal with Nokia, Frost & Sullivan views this as a more focused approach by Withings to capitalize the wearables growth opportunity with sleep health condition, a growing market looking for more cost efficient and patient-centric solutions. By allowing people to track the intensity of breathing disturbances, it is helping them identify warning signs early. As per the company, this announcement is very important as it furthers Withings' mission to bring medical-grade analytics into the home. However, Withings Sleep solution will face direct competition from Apple-owned Beddit sleep monitor system, which is a flexible strip placed under a sheet on top of a mattress that tracks sleep time, heart rate, respiration, temperature, movement, and more. Moving forward it will be critical for these sleep tech companies to prove value to the medical community by demonstrating clinically meaningful outcomes when compared against current industry gold standards.
- **Target End-User:** Sleep test centers, Hospitals, Consumer

WEBLINK: <https://bit.ly/2CxH5a1>

Huami steps up efforts in R&D of digital healthcare products – March 12, 2019 (1/2)

Applicable Product Categories:

Wearables

 Technologies	Wearable (Device + App)	 Therapeutic Areas	Lifestyle and chronic health condition management
 Applications	Wellness and Fitness, Remote Monitoring	 Geographic Focus	Global
 Segment Focus	Consumer Grade	 Topics (News type)	Competitive Intelligence
 Companies	Huami Corp (Xiaomi)	 Others	NA

ANALYST TAKE:









- **Synopsis:** US-listed Huami Corp is ratcheting up resources allocated to digital healthcare services, after the five-year-old company saw spectacular sales performance for smartwatches and fitness trackers.
- **Value Proposition:** The company is the sole provider of Xiaomi Corp's wearables. It designs and manufactures Xiaomi's wearables, including fitness trackers and smartwatches, and also makes self-branded products. As per company recent statement, its revenue in the three months through December increased 63% year-over-year to \$178.1 million, thanks to improved brand recognition. So far, it has sold over 50 million wearable units and helped Xiaomi overtake Apple Inc as the top wearable vendor in the third quarter of 2018 when Huami's shipments more than doubled to 8.2 million units. To better build its brand image, Huami has also inked an agreement with Timex Group, a global leader in watchmaking for more than 160 years. Under the deal, the two sides will explore opportunities to develop new products and increase global presence in the smart wearables marketplace. The company's deep learning AI cloud platform, in partnership with doctors, analyzed more than 11 million pieces of monitoring data of people's heart rates last year and found that 18,000 were abnormal, helping users identify health problems that may have gone unnoticed for a long time.
- Frost & Sullivan views Xiaomi brand by Huami as a strong competitor especially in Asia and other low-cost destinations. With focused R&D collaboration and more collaborative research with leading academia/CROs, can make its products more clinically vetted (medical-grad) yet being cost competitive. During 2019, Huami is expected to generate revenue in the range of 750 million to 770 million yuan.

WEBLINK: <https://bit.ly/2CusNa0>

Fitbit introduces budget-friendly line of wearables for kids and adults – March 11, 2019

Applicable Product Categories:

Wearables

 Technologies	Wearable (Device + App)	 Therapeutic Areas	Lifestyle and chronic health condition management
 Applications	Wellness and Fitness, Remote Monitoring	 Geographic Focus	Global
 Segment Focus	Consumer Grade	 Topics (News type)	Competitive Intelligence
 Companies	Fitbit	 Others	NA

ANALYST TAKE:









- **Synopsis:** Fitbit recently unveiled the Fitbit Versa Lite Edition, its newest addition to the Fitbit Versa smartwatch family which also includes the Fitbit Ace 2 for kids 6+, the Fitbit Inspire and Fitbit Inspire HR. The new Fitbit products are high-quality, easy-to-use and more affordable.
- **Value Proposition:** The company on Wednesday rolled out a Fitbit Versa Lite smartwatch at \$159.95, roughly \$40 less expensive than its main Versa product. Fitbit also said it will replace its existing fitness trackers with the Fitbit Inspire and Fitbit Inspire HR, which cost \$69.95 and \$99.95, respectively. Both are about \$30 less than comparable older models. Fitbit also redesigned its kids activity tracker. The new version, the Fitbit Ace 2, costs \$69.95, \$30 less than its predecessor. The company also says lower prices will attract health plans that want to encourage members to become more active but don't necessarily want to spend hundreds of dollars doing so.
- Frost & Sullivan views this as Fitbit's reaction to increasing competition and a logical move to claim the less crowded demographic segment such as kids wearables and fitness band products. Additionally, the new products come as Fitbit tries to regain momentum. Its activity trackers sparked a craze of consumers logging their movement and trying to hit at least 10,000 steps per day. However, in the long-run Fitbit has to pivot its efforts to get into the medical-grade wearable segment.
- **End-Users:** Consumers (adults and kids), Private Health Insurance companies, and employee health programs.

WEBLINK: <https://bit.ly/2HAb9G4>

University of Michigan using Apple Watches to build clinical data pool for health research – March 19, 2019

Applicable Product Categories:

Wearables

 Technologies	Wearable (Device + App)	 Therapeutic Areas	Lifestyle and chronic health condition management
 Applications	Remote Monitoring, Digital Biomarkers	 Geographic Focus	Global
 Segment Focus	Clinical / Consumer Grade	 Topics (News type)	Competitive Intelligence
 Companies	Apple	 Others	NA

ANALYST TAKE:

- **Synopsis:** The project will combine participants' Apple Watch data with genetic tests, survey responses, EHR data and other health information.
- **Value Proposition:** The University of Michigan is collaborating with Apple on a research study with 1,000 people already enrolled through its health system to discover if data collected on Apple Watch, combined with other health information, can provide more information for doctors about a patient's health, wellness and risk for disease. In the beginning, each research participant donates a blood sample for routine laboratory testing. They are then sent survey questions through an app on their iPhone on a variety of health topics during the study. There are no treatment or control groups in the observational study, he said.
- As per the research lead, Dr. Sachin Kheterpal, "the goal of the study is to understand the relationship between biosensors, health information and health outcomes. By asking participants to wear an Apple Watch and use a blood pressure monitor, we will be able to better understand their daily health and level of activity"
- Frost & Sullivan views this collaboration as Apple's continued focus on clinical validation of its healthcare focused wearables solutions. With increasing focus on concepts such as Precision Medicine and Real World Evidence (RWE), the Apple's research may provide instrumental evidence on the actual application of digital biomarkers, which will be boon for the wearables industry in the long run. This study is also expected further open up the clinical trial market application for Apple's wearable solutions.
- **End-Users:** Academia, ACRO/CRO, Pharma Clinical Trials.

WEBLINK: <https://bit.ly/2Hz0MCI>











Mobile Phones/ mHealth

Through AI text chats, Sopris Health's new app saves time on clinical documentation – March 19, 2019 (1/2)

Applicable Product Categories:

Mobile Phones

 Technologies	mHealth App;	 Therapeutic Areas	NA (Care delivery workflow optimization)
 Applications	Virtual Scribe	 Geographic Focus	Global
 Segment Focus	Consumer Grade	 Topics (News type)	Innovative Application/ Use case
 Companies	Sopris Health	 Others	-

ANALYST TAKE:

- **Synopsis:** Denver-based startup Sopris Health launched today the latest version of its mobile, artificial intelligence-powered clinical documentation system. Called Sopris Assistant, the tool guides practitioners through the composition of a clinical note and imports it into the EHR system in less than a minute.
- **Industry Challenge:** While digital technologies are transforming the healthcare industry, often its perceived that these digital solutions are increasing the burden for practicing physicians and more critically increasing the gap between the physician-patient relationship. For example, while electronic health records improve communication and access to patient data, researchers found that stress from using EHRs is associated with burnout, particularly for primary care doctors such as pediatricians, family medicine physicians and general internists. According to Allscripts report, about half (51 percent) of physicians reported frequent feelings of burnout in 2017, up from 40 percent in 2013. Fifty-six percent of physicians said documentation burdens contribute to burnout, and 24 percent blamed increased computerization of EHR work.

Through AI text chats, Sopris Health's new app saves time on clinical documentation –

March 19, 2019 (2/2)

Value Proposition:








- **How “Sopris Assistant” Works:** The new Sopris Assistant doubles down on a mobile experience outside the confines of an exam room, asking a few key questions in a unique chat interface. The Sopris Assistant is trained to know what questions to ask by specialty, by visit type, by note type in the simplest exchange possible. Providers use face or touch to securely authenticate and open the Sopris Assistant app, then tap the selected patient from a list imported via EHR integration.
- The Sopris Assistant walks the provider through an interactive chat interface, asking to:
 - Select the type of visit – a visit model created and vetted by specialty
 - Answer minimal questions via voice, text or trained “chips” that intuitively suggest appropriate, common answers – Sopris Assistant continually learns over time, making new suggestions specific to the user
 - Review the clinic note automatically generated by Sopris Assistant and submit to HER
- As per Dr. John Froelich, a practicing orthopedic surgeon and co-founder of Sopris Health, “Sopris Assistant is a response to the reality that many physicians don’t want documentation to be a part of their exam room encounter, but their hands historically have been tied with outdated, cumbersome and expensive technology solutions.
- Frost & Sullivan views Sopris Assistant as a timely solution that focuses on operational efficiency to augment physicians during patient consultation and considers the human factor in doctor-patient relations. Sopris Assistant compresses 5-10 minutes of documentation per visit down to 45 seconds or less, instead of 2 hours of documentation after clinic or pajama time at home, which provides an actual ROI to busy practicing physicians. Additionally, a complete note is submitted by the provider to the EHR before stepping foot in the next exam room – with only a positive impact to patient experience, patient panel and workflow.
- However, Sopris Health is not the only player in the virtual scribe space, company such as IKS Health’s virtual scribe, Suki, virtual scribe Saykara, and Augmedix are some of the well know competitors in this space.
- **Target End-User:** Hospitals and Physician Practices

WEBLINK: <https://bit.ly/2UPI8Kx>

Algorithm uses smartphone camera, flashlight to spot diabetes – March 19, 2019

Applicable Product Categories:

Mobile Phones

 Technologies	mHealth App;	 Therapeutic Areas	Diabetes
 Applications	Diabetes Monitoring	 Geographic Focus	US
 Segment Focus	Clinical / Consumer Grade	 Topics (News type)	Product Innovation
 Companies	UCSF	 Others	-

ANALYST TAKE:

- **Synopsis:** New research set to be presented during American College of Cardiology's 68th Annual Scientific Session describes how the camera on a smartphone could be used to screen for Type 2 diabetes.
- **Value Proposition:** Diabetes is associated with changes to how blood flows through a person's blood vessels, an effect that researchers from UCSF suggest could be used to detect early changes. By applying a deep learning algorithm to an existing heart rate dataset, the team's approach was able to correctly identify the condition in nearly three-quarters of individuals examined in the study. An application using the photoplethysmography (PPG) signal, which is readily obtained from smartphones and wearable devices, can detect diabetes. The researchers found that 6.0 percent of the participants had diabetes. Seven percent of the 1,440,000 PPG measurements were derived from participants with diabetes. In the test dataset, the AUC for predicting prevalent diabetes was 0.772. The negative predictive value was 97 percent.
- Frost & Sullivan views this as an innovative research finding given that the CGM for diabetes monitoring continue to be a black hole for the industry in terms of R&D innovation. Newer diabetes technologies designed for consumer use are generally geared toward managing the chronic condition, but the diagnostic and risk-estimate space has lately seen some advancements as well. It will be interesting to track the commercial scaling of this prototype.


WEBLINK: <https://bit.ly/2F6eUR0>

Mount Sinai spinout OOVA gets \$1M for fertility testing kit

– March 13, 2019 (1/2)

Applicable Product Categories:

Mobile Phones

 Technologies	mHealth App	 Therapeutic Areas	Fertility Testing
 Applications	Fertility Diagnostics	 Geographic Focus	Global
 Segment Focus	Clinical Grade	 Topics (News type)	Technology Innovation
 Companies	Mount Sinai, OOVA	 Others	-

ANALYST TAKE:

Synopsis: OOVA, a Mount Sinai Health System spinoff focused on fertility and women's health, has raised \$1 million in a seed round led by Special Situations Life Sciences Innovation Fund, with additional contributions from Company Ventures and angel investors.

Industry Need:

- It is widely known that infertility is a growing challenge across the world. The World Health Organization estimates that 1 in 4 couples in developing countries have been affected by infertility. The CDC in the United States, however, estimates 1 in 8 couples have trouble getting pregnant, and approximately one-third of infertility is attributed to the female partner, one-third attributed to the male partner and one-third is caused by a combination of problems in both partners or, is unexplained.
- With changing lifestyles, infertility is rising, however exact statistics are not monitored or available.

Mount Sinai spinout OOVA gets \$1M for fertility testing kit

– March 13, 2019 (2/2)

Value Proposition:

- “The company’s first product, which is currently in pre-orders, is a mail-order test kit for fertility monitoring that contains 20 disposable urine tests. The tests can be scanned with a smartphone to get results directly on the user’s phone.”
- Initially, the test will measure luteinizing hormone and progesterone. As users track these hormones over time, the smartphone app will be able to deliver a trend report that will help women map their individual fertility.
- “We’re not comparing her data to some standard threshold of the perfect woman. We determine what her baseline is and then track the progression by comparing to that.”
- OOVA already has its first partner, which should help them move swiftly into the market: Thorne Research, the nation’s largest clinical grade supplement company.
- Frost & Sullivan research highlights femtech as a growing space, serving health needs of women with the use of technology. Simultaneously, smartphone connected medical device development is also on the rise. These two trends are bound to collide further, with more services for women expected to be developed. In this case, OOVA will compete with Mira which provides a similar solution but requires an additional device to perform the test. Similar devices include Inui Health, Test Card, Healthy.IO and Scanwell. However, concerns around reimbursement for such devices is yet to be addressed. At lower price points, such devices may see quick adoption in a direct-to-consumer format.
- **Target End-User:** Women, obgyn clinics, hospitals









WEBLINK: <https://bit.ly/2UPOit7>

Virtue, TestCard and ExSeed join Novartis & Wayra UK health tech accelerator

– March 04, 2019 (1/2)

Applicable Product Categories:

Mobile Phones

 Technologies	mHealth App	 Therapeutic Areas	At Home diagnostics
 Applications	Urinalysis, Sperm Testing	 Geographic Focus	Global
 Segment Focus	Clinical Grade	 Topics (News type)	Business Model Innovation
 Companies	TestCard, ExSeed	 Others	Virtue, Novartis, Wayra UK

ANALYST TAKE:

Synopsis: Pharma giant Novartis and O2 innovation arm Wayra UK revealed last week that Virtue, TestCard and ExSeed would join its nine-month Health Hub accelerator programme.

Industry Need:

Startup accelerators are a way for startups to learn more on challenges and business strategies, and an opportunity to develop contacts within the industry via networking opportunities. On the other hand, healthcare incumbents are investing time, resources and efforts in the startup community, either via accelerators or via venture funding to get access to the latest and the best solutions being developed, especially at a time when in-house R&D efforts are too complex and expensive, making startup acquisition or partnerships much easier.

Virtue, TestCard and ExSeed join Novartis & Wayra UK health tech accelerator

– March 04, 2019 (2/2)

Value Proposition:

- TestCard offers a non-invasive urine test kit embedded within a postcard, with an accompanying app that turns a mobile phone's camera into a clinical grade scanner. In September last year, the startup announced that it had completed a £1.25m seed financing round led by Neo Ventures for the launch of its solution.
- ExSeed Health has developed a device that can be used to test sperm quality at home and connects to a smartphone with an app providing analysis and results. It has been available in Denmark since January, and it will be launched in the UK in April this year.
- During the nine-month programme, Novartis will provide the startups with access to its network and support with NHS engagement. Wayra UK will offer, among others, mentoring, business development support and help to raise funds.
- Frost & Sullivan research indicates that with traditional centralized testing process, patients are often disconnected from the consultation process and require more than one visit to the doctor to complete the assessment process. Now, the healthcare system is changing. It is becoming less fragmented and more patient-centric; attempting to bring testing closer to the patient with such portable diagnostic devices that provide instant results to the patient. Importantly, by providing faster results and subsequently earlier therapeutic intervention, POCT can improve patient outcomes.
- **Target End-User:** Husbands trying to conceive, fertility clinics, obgyn clinics; urinary track infection patients, primary care / urology clinics

WEBLINK: <https://bit.ly/2UOt3rF>

BACtrack launches remote monitoring app for alcoholism

– March 12, 2019 (1/2)

Applicable Product Categories:

Mobile Phones

 Technologies	AI, Breath analysis	 Therapeutic Areas	Alcoholism
 Applications	Testing sobriety	 Geographic Focus	Global
 Segment Focus	Consumer Grade	 Topics (News type)	Technology Innovation
 Companies	BACtrack	 Others	FLOOME

ANALYST TAKE:

Synopsis: BACtrack, a company that has been invested in the smartphone-connected breathalyzer for years now, has launched BACTrack View, a new remote monitoring service that will let friends, family, or sponsors check in remotely on a BACtrack user's sobriety level. The subscription service provides digital accountability for people in recovery.

Industry Need:

- The World Health Organization estimates the alcohol use disorder prevalence rates to vary between 0% to 16% in 2004, with the highest prevalence found in Eastern Europe.
- In the US, 6.2% of all adults had the disorder, and only 6.7% of those received treatment, per the National Institute on Alcohol Abuse and Alcoholism. Additionally, an estimated 88,000 people die annually from alcohol-related cases, making alcohol the third largest preventable cause of death in the US.

BACtrack launches remote monitoring app for alcoholism

– March 12, 2019 (2/2)

Value Proposition:

- The service is available as a subscription plan for between \$79 and \$129, and all plans include the BACtrack Mobile device.
- The person doing the monitoring can set a testing schedule. The person being monitored will then get reminders to test their breath. When they do so, they also take a picture with the phone's front-facing camera to prove it's them. The observer can then see both the picture and the results, or get a notification if the test is missed.
- For now, the company is touting several different use cases, from recovery support to peace of mind in split-custody situations.
- Frost & Sullivan research notes that only BACtrack and Floome are the two active companies in the space of breathalyzers for alcohol tracking. Interestingly, the application has been in use for more than a decade, yet health related applications are still in development – the use of breathalyzers as a monitoring tool for diabetes and other conditions continues to be researched and developed, but has proven to be evasive. In this case, getting consumers to buy a device for tracking their alcohol levels may not be easy, but with a subscription service geared at the recovering population's friends and family seems to be a smart move.
- **Target End-User:** Recovering alcohol abuse patients, and their friends and family, as well as sobriety sponsors or mentors

WEBLINK: <https://bit.ly/2uoCCli>

Opinion: Four digital health predictions that transpired at the Mobile World Congress – March 06, 2019

Applicable Product Categories: Mobile Phones

SYNOPSIS:

Four key predictions for the healthcare of the future:

Netflix for healthcare: I believe that users will no longer have several health apps on their phone, each one providing a separate service. Instead, they will pay for a single subscription that will provide access to a host of apps. The change will come not just because it is easier for the user, but also because many health apps are failing due to their business model.

The rise of self-diagnosis Self-diagnosis may be a nightmare for many medical professionals, but it is coming, and fast. Given the abundance of services offering DNA, blood and microbiome testing, it is only a matter of time before all data is fed into an intelligent system that analyses it and comes up with healthcare predictions and even diagnosis.

Innovation from within: One thing that can help accelerate change is the rise of entrepreneurs with a medical or healthcare-related background - doctors, nurses and other health professionals who genuinely understand the stakeholders' point of view, know the pain points of the system and are in a position to provide the best solutions.

Gaming as the secret sauce of staying healthy: As the entertainment industry gets more mobile and VR-friendly, we will see more video games that encourage movement and playing with body movements rather than controllers. The increase in this type of games will have a positive impact on people's health, particularly given the sedentary nature of our society.

WEBLINK: <https://bit.ly/2UufJZq>



Smart Home Devices & Appliances

Biophilia and the Reason Smart-Home Pros Can Own the Wellness Category – March 19, 2019

Applicable Product Categories:

Smart Home Devices

 Technologies	Smart lights	 Therapeutic Areas	Sleep / Circadian rhythms
 Applications	Sleep, Wellness	 Geographic Focus	US / Global
 Segment Focus	Consumer Grade	 Topics (News type)	Care Delivery Innovation
 Companies	-	 Others	-

ANALYST TAKE:

“Whether we know it or not, we *physically* crave the sounds, smells and visuals of the great outdoors. And we long for the all-important natural cues – lighting and air conditions especially – that synch with our deeply ingrained 24-hour circadian clocks. The good news is that nature can be faked pretty effectively, providing wellness benefits in “built” environments akin to those produced outdoors – a practice known as biomimicry or biomimetics. The home-technology sector is already doing it. If you’re automating tunable white lights to simulate the intensity and color temperature of natural daylight, then congrats! You are a biomimic.”



- Frost & Sullivan notes that wellness is an important area to be addressed in the smart home, and circadian rhythms that affect sleep as well, are an important factor in the wellness paradigm. Solutions that address the concept mentioned in the article will greatly enhance the wellness of residents. But the questions on proving their effectiveness, and justifying the prices would be a challenge, since a direct outcome may be difficult to provide.

WEBLINK: <https://bit.ly/2Ydmlbe>

Amazon could soon force you to go on a diet, according to one futurist – March 21, 2019

Applicable Product Categories:

Smart Home Devices

 Technologies	AI, IoT	 Therapeutic Areas	Sleep / Circadian rhythms
 Applications	Sleep, Wellness	 Geographic Focus	US / Global
 Segment Focus	Consumer Grade	 Topics (News type)	Care Delivery Innovation
 Companies	-	 Others	-

ANALYST TAKE:

In 2029, there's a good chance you'll be living in a Google, an Amazon, or an Apple home—you and all of your data, biometric and otherwise. What might that look like? "The microwave decides you should be on a diet and won't let you eat popcorn," says Amy Webb, a professor of strategic foresight at the NYU Stern School of Business and the founder of the consulting firm Future Today Institute. "The washer decides you can get another day out of those jeans. Your garage decides you should walk to work." Why? "First, there's a proliferation of smart home devices that are worming their way inside people's homes. Second, the number of voice-activated devices is increasing rapidly, even beating analyst results. Third, if you're giving health data to a company that is also providing healthcare to you, whether that's through primary care or insurance, that means the company could potentially use your lifestyle data to inform how much your healthcare should cost."

- Frost & Sullivan notes that this is a slightly exaggerated version of the future, one where AI dominates, rather than recommends. We would assume a scenario where AI can provide you the recommendations, but the user will be able to override. Even the points around privacy, and information sharing with insurance companies may not be accurate, as government laws and policies should prevent that from happening. Nevertheless, this article shows the potential of technologies in the smart home, to serve the users' needs.

WEBLINK: <https://bit.ly/2ul7ovu>

Other Interesting Articles

When available, other interesting articles will be covered here in short.

News Title	Link	Remarks
Chinese people are buying more smart speakers but they aren't using them	https://bit.ly/2Wg2hIY	2018 was the year of smart speakers in China – but now, consumers have lost interest, and it is simply a music player. Without the enabling ecosystem components and products being adopted, smart speakers are simply that – music players?
Apple wants to collect and analyze Siri complaints	https://bit.ly/2HyFCEp	Given that Apple's smart speakers aren't quite up to the mark, this makes sense, and is a good product development strategy.
5G's Potential, and Why Businesses Should Start Preparing for It	https://bit.ly/2NGBQJe	“To work together, truly smart homes will need 5G's capacity, reliability, energy efficiency and low latency.” “The article naively suggests AI add-ons to smart home systems that snoop on users and make 'moral decisions' about whether or not to report them to the authorities. Its selling example is about catching teenagers smoking cannabis in their bedrooms..” Several privacy questions and concerns will arise from the use of AI / smart home tech, and we need to incorporate those in thinking of the tech will be used during the development stage of new products.
Grassing On Teenagers - AI To Snoop On Pot Smokers	https://bit.ly/2unXj0N	

Other Interesting Articles (continued)

When available, other interesting articles will be covered here in short.

News Title	Link	Remarks
Amazon ending sales of physical Dash Buttons, one of its wackiest smart home innovations	https://bit.ly/2C3xw08Z	These are discontinued, as they are now obsolete. They were introduced in 2015 – just four years ago, and are already obsolete. Raises questions on what else could be replaced by tech developments in the smart home space.
The UK's leading smart home startups	https://bit.ly/2U3VodJj	A list of startups from the UK, active in this space.
Who will benefit from IoT disruption in home insurance?	https://bit.ly/2F32QVRE	A similar case could be made for smart home tech and health insurance, where the impact of benefits is several folds higher.
Who should fix Internet of Things cybersecurity? Congress takes a crack at it	https://bit.ly/2X3UJWmd	A good move overall. “There are currently no security standards whatsoever that manufacturers are mandated to follow. Congress is looking to change that by introducing a bill next week called The Internet of Things Cybersecurity Improvement Act.”
Smart home tech needs to adapt to APAC consumers	https://bit.ly/2T3PkXCF	“With voice activation displaying limitations in processing local accents, this could mean an advantage for smart displays as a visual centric alternative for smart speakers in Asia Pacific and beyond,”
Chinese consumers warned of electric shock risk from toilet seats	https://bit.ly/2J3A1q4j	‘Smart’ toilet seats, popular among Chinese middle class found to be faulty.