CEA REPORTS

WEARABLES KEEP CONSUMERS FIT

At nearly $2 billion, the wearable health and fitness category is no longer a niche market. You can't go far without spotting someone sporting a Fitbit, FuelBand or some other fitness tracker. The public's interest in health and fitness has intersected with developments in digital technology, low power batteries and APIs to create the perfect conditions for adoption among mainstream consumers. Plus, with brands like Reebok and Under Armour getting involved, not to mention designers including Tory Burch and Ralph Lauren, wearables are now fashionable.

Remarkable Growth

According to CEA, the wearable business will see unit sales reach 30.9 million in 2015, up 61 percent from last year, and generate revenue of $5.1 billion, a 133 percent increase. Wearable health and fitness represents a sizable piece of that growth, with 20 million units shipped to retailers, generating more than $1.8 billion in revenue. And Juniper Research forecasts the wearable devices market will reach more than 70 million devices by 2018.

At the 2015 International CES, nearly 1,800 digital health and fitness exhibitors filled the show floor, about five times the number from last year. Wearable exhibitors including Basis, Icon Health & Fitness and POLAR grew from a couple of aisles in 2014 to a quarter of the exhibit hall floor space. There were 80 dedicated health and fitness bands alone.

Greater Adoption

Advancements in product usability, functionality and quality are fueling mainstream adoption of wearable health and fitness products. They're now smarter, more accurate and do more than just measure steps. No longer just a digital pedometer, these gadgets give users insights on sleep patterns, calorie consumption, heart rate and blood pressure.

Also, simplicity and usability have made products more accessible and reduced the barriers to trial. Fitbit has led the charge, designing its devices with a Steve Jobs-like aversion to buttons and switches. Most Fitbits are operated with the tap of a finger with simple displays and results are conveyed in streamlined graphics accessible via smartphone or PC.

Longer battery life also has increased the appeal and stickiness of wearable health and fitness products. In a survey by *Fortune* magazine, consumers said that improved battery life was the new smartphone feature they were most excited about. This hasn't gotten lost among the makers of wearables. At CES, Lenovo and Pebble introduced products that use E Ink, a low-power technology that enables the battery to last up to seven days on a single charge.

Fashion and Function

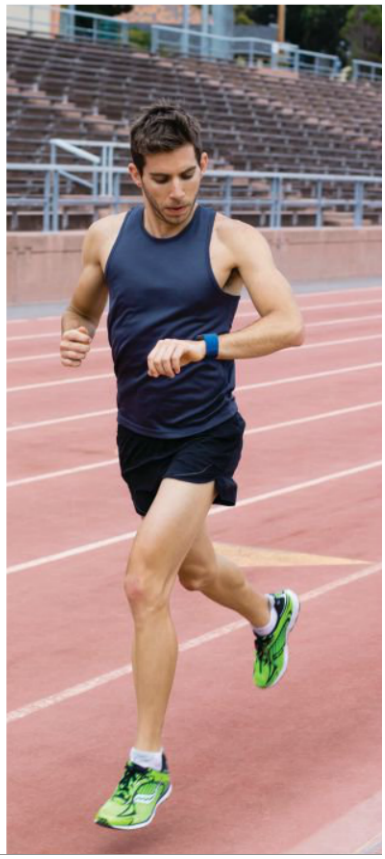
Style in wearables used to mean a product came in more than one color. Now, thanks to industrial designers like Yves Béhar of Herman Miller and Prada fame, who serves as chief creative officer at Jawbone, it means these products can be worn outside the gym. In fact, many wristbands are designed to appeal to men who wear timepieces as fashion statements. The Withings Activité Pop smartwatch features a monochrome and lightweight design and a classic watch face that displays its tracking function with dials.

Wearable makers have also woken up to the female market opportunity and are designing products for women who don't want to have to decide between jewelry and gadget. The Shine fitness tracker from Misfit uses a sensor core that pops out of the wristband and can be placed into accessories like bangles and pendants, including a collection developed with crystal jewelry brand Swarovski.

The Ear Is the New Wrist

Some companies are moving beyond the wrist and taking over real estate on the body to provide new functionality and broaden appeal. The upcoming Dash from Bragi is a set of Bluetooth-enabled headphones to monitor workout time, distance, step cadence, heart-rate, oxygen saturation and calories burned. With a 1,000 song music player and embedded ear bone microphone, the Dash also functions as a standalone media device and smartphone headset operated with intuitive touch-based controls.

Sony is developing a similar headphone product with two significant additions. First, the Smart B-Trainer allows users to load a fitness plan that syncs with a beats-per-minute music analyzer so it can adjust the music tempo to encourage wearers to run faster or slower depending on their heart rate target. It also includes audio fitness coaching in the form of automated notifications about the runners' progress.



"MASTERING THE DATA"

While companies compete to satisfy consumer demand for wearable fitness products, they have the added challenge of managing all the data those devices create.

CEA's recent study of the wearable activity tracker market, *Wearable Activity Trackers: Engaging Consumers to Monitor their Health*, reports that a strong majority (95 percent) of fitness tracker owners find that their devices are helpful as they work on fitness goals, and that these devices encourage them to be more active (87 percent). But when you think about it, the utility of fitness trackers is in the data they collect rather than the devices themselves.

This data has hugely positive personal and societal benefits. At the individual level, users can better understand their bodies or inspire their friends to get fit. At the societal level, data analytics can point to trends in disease or augment medical research in previously unimagined ways. Even more macro-level benefits of data analytics will reveal themselves as Internet of Things technologies mature.

At the same time, consumers want to carefully manage data, especially personal data. Our study shows that most wearable fitness owners understand the data these devices collect; in fact, 59 percent are familiar with the privacy policies of their devices. However, fewer are willing to share data outside of the customer-manufacturer relationship (44 percent).

As wearables gain traction, companies must be sensitive to consumer expectations about data sharing. Companies that show consumers how their data has a positive impact will reap the reward of increased customer loyalty and trust. *—Alex Reynolds*

There's a Gadget for That

While multi-functionality has made wearables more appealing to many mainstream buyers, sport- and use-specific devices have made them more popular with other groups. The sports industry, for example, has adopted wearables to improve performance as well as address safety issues. Vert, a wearable jump tracker, was featured at the FitnessTech Summit. Targeted to volleyball and basketball players, Vert helps athletes measure their jumping capabilities. A lightweight sensing device clipped on shorts transmits data to a mobile device so athletes and coaches can immediately see the height and frequency of their jumps. Fitguard, launched this year, includes a built-in accelerometer and gyroscope embedded into a mouthguard. Fitguard tracks linear and angular acceleration and uses that data to indicate when a player has suffered a potential concussion.

Runners have gotten into the Sensoria Fitness Sock with pressure sensors that provide real-time feedback on cadence and landing patterns, as well as the Altra Halo Tech Shoe, which is outfitted with insole sensors that measure cadence, distance, speed and other data.

Other products appeal to users interested in the mind/body connection. The NEO Neurophone headband transmits ultrasonic waves through the skin to penetrate the brain and onto the saccule, a hearing organ. The results include rapid learning abilities, improved memory retention, increased IQ and enhanced meditative states.

Wearables also extend beyond personal use. First Alert Onelink Watch allows wearers to share status updates and location with contacts in the case of an emergency. And Miiya is a kid's wearable designed to nudge them to be more active, while also offering security features to alert parents if their child has wandered away.

Something for Everybody

However, the needs and desires of buyers have fragmented. Now in addition to younger fitness enthusiasts who use the devices to optimize their fitness routines, there are dieters with specific calorie-intake and burning goals, middle aged parents who want to become more active and aging adults battling health issues or striving to avoid them. To meet this range of demand, the more established players are offering different products with specs priced at various levels and branding each with its own name.

Fitbit exemplifies this approach with its line-up of products, which includes six wearables. The Fitbit Zip, a clip-on model, is the least expensive, tracking only steps, distance and calories burned. One step up, the Fitbit One includes Bluetooth syncing, sleep tracking and a vibrating alarm. Wristbands start with the Flex, followed by the Charge, the Charge HR (heart rate monitoring), and finally the Surge (text notifications, music controls and GPS tracking.) Fitbit has positioned itself as a brand for people of every fitness level.

Garmin applies an activity-based segmentation to its product line. The Garmin Vivoactive sports tracker appeals to fitness enthusiasts by tracking everyday activity as well as activities like swimming and golf. Meanwhile the Garmin FDnix 3 is targeted to more hardcore multi-sport users, including bikers and skiers. And the Garmin Epix, featuring a hi-res color touchscreen and internal storage for keeping maps saved offline locally is for outdoor enthusiasts.

Smartwatches

The product that may be most responsible for driving wearables across the technology adoption chasm is only in its infancy—the smartwatch. First generation smartwatches, like those from Pebble and Withings as well as Microsoft and Samsung, have integrated some mobile functionality into what are mainly health and fitness devices.

But the Apple Watch, which becomes available and ships in April, introduces new functionality, design sensibility and the cool factor. Of course, consumers' perceptions of its pricing and the reality of its claimed 18-hour battery life are critical to its appeal. But if Apple gets it right, the Apple Watch and the fast followers it inspires will propel the smartwatch into a new level of adoption that will likely bring the entire wearable health and fitness industry with it.

Fitbit