# Wearable "Solutions" and the Internet of Incarceration

*A new push is underway to sell wearable devices and sensors as the solution to the opioid and prison crises in the US. However, this "solution" is set to come at a major cost to civil liberties and human freedom in general.*

by **[Jeremy Loffredo](#)**, *[Unlimited Hangout](#)*
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In recent years, calls for radical prison reform and a solution to the U.S.' opioid crisis have come to permeate national politics in the United States. With over [two million people behind bars](#) and [more than 400,000 people](#) dead from [opioid misuse](#) in the last two decades, these topics [are](#) [often](#) [on](#) [the](#) [front](#) [page](#) of major newspapers in the U.S. and abroad.

However, at the same time, the marketing of wearable technology, or wearables, as a solution to both of these hot-button issues has become promoted by key players in both the public and private sectors. Especially since COVID-19, these electronic devices that can be worn as accessories, embedded in clothes or even implanted under the skin, are frequently heralded by corporations, academics and influential think tanks as "cost effective", technological solutions to these deeply rooted problems.

Yet, as will be covered in this article, the shift towards wearables may offer more costs than benefits, particularly when it comes to matters of civil liberties and privacy.

## The World Economic Forum and Wearables

On paper, the World Economic Forum (WEF, also known as the International Organization for Public Private Cooperation) is an NGO and think tank "committed to improving the state of the world." In reality, it's an international network of some of the wealthiest and most powerful people on Earth. The organization is best known for its annual gathering of the (mostly white, [European](#) and [North American](#)) ruling class. Each year hedge fund managers, bankers, CEOs, media representatives and heads of state gather in Davos to "[shape global, regional and industry agendas.](#)" As [Foreign Affairs](#) once put it, "the WEF has no formal authority, but it has become a major forum for elites to discuss policy ideas and priorities."

In 2017, WEF Founder Klaus Schwab put out a book called "[The Fourth Industrial Revolution](#)." The WEF uses the term Fourth Industrial Revolution (4IR) to denote the current "technological revolution" that is changing the way people "live, work, and relate to one another," and with implications "unlike anything humankind has experienced before." The 4IR is characterized by new technologies like artificial intelligence (AI), robotics, 3D printing, and the "internet of things," which essentially denotes embedding things with sensors — including human bodies in the form of wearables.

Like the industrial 'revolutions' that came before, the main theme for the WEF's Fourth Industrial Revolution is that it will allow companies to produce more, more quickly and for far less money.

In the book, Schwab positions wearable technology as key to helping companies become organized around remote work by providing one's employers "with a continuous exchange of data and insights about the things or tasks being worked on." In a similar vein, Schwab emphasizes the "wealth of information that can be gathered from wearable devices and implantable technologies."

But unlike the industrial 'revolutions' of the past, the WEF's 4IR aims to blur the distinction between the [physical, digital, and biological spheres](#). And the WEF is a vocal advocate for wearables in their propensity to propel what it calls 'human enhancement.'

In 2018, Schwab teamed up with WEF's "Head of Society and Innovation" [Nicholas Davis](#) to write a follow up book entitled "[Shaping the Future of the Fourth Industrial Revolution](#)."Having been with the organization for over a decade, Davis was the obvious choice to co-author this book as he now "lead[s] the theme of the Fourth Industrial Revolution" at the WEF.

Schwab and Davis see wearables as just a stepping stone for the 4IR, writing that wearable devices "will almost certainly become implantable" in the body and the brain. "External wearable devices, such as smart watches, intelligent earbuds and augmented reality glasses, are giving way to active implantable microchips that break the skin barrier of our bodies, creating intriguing possibilities that range from integrated treatment systems to opportunities for human enhancement," they write.

The authors note the potential to "drive an industry of human enhancement" that would, in turn, enhance "worker productivity." However, other groups, including those partnered with the WEF, see other potential applications for their use well beyond the workplace.

## Wearables, the Opioid Crisis and the War on Drugs

Deloitte, the [world's](#) [largest](#) accounting firm and a longstanding partner of the WEF, has promoted wearables as a way to resolve the opioid epidemic. In 2016, Deloitte's Center for Government Insights put out a [report](#) outlining how to fight the opioid crisis. The authors make the case that "technologists" and "innovators" should be part of the solution to the opioid crisis. Then, in 2018, the firm put out

an article called "Strategies For Stemming The Opioid Epidemic," explaining how data analytics could be used to help pharmacy benefit managers chart their course.

Other WEF partners are more directly involved in this effort. For example, [WEF 'Global Shaper' Ryan O'Shea](#) is the co-founder of Behaivior, a company that says it's creating "technology to predict and prevent addiction relapses" using wearables. O'Shea, in addition to his WEF ties, is also [the social media manager](#) for Humanity Plus, formerly the World Transhumanist Association, which [received $100,000](#) from Jeffrey Epstein in 2018 in addition to previous donations from Epstein-linked charities. Epstein also donated significant sums to Humanity Plus' chair, Ben Goertzel.

According to the Behaivior website, the company's mission is described as follows:

> *"We are creating software that can take real-time data streams from wearable devices that detect heart rate, heart rate variability, skin temperature, motion, and galvanic skin response (which is related to stress levels). This data is combined with other digital information about behavior, such as GPS location. As behavior and physiology changes, our software screens users for whether or not they are in a pre-relapse craving state."*

Hunter and his co-authors argue that remote monitoring through wearable sensors is a superior alternative to traditional surveillance cameras. " … Our proposal requires prisoners to wear a series of remote sensors—including those for sound, video, and movement—that are connected to central computer systems that can detect unauthorized behavior," they write.

Hunter and his co-authors further insist that the third step, the "remote immobilization of offenders," would actually make this technological incarceration more secure than a conventional prison, since there is no chance of prisoner

escape.

Hunter's model of incarceration is declared as a "system that can determine whether a prisoner is having a psychotic episode (from speech recognition and audio processing of a prisoner's emotional states), is threatening another (from audio processing of the emotional states of all the people within the prisoner's environment and video processing of the prisoner's behavior), or is seeking to leave a designated zone (from GPS tracking)."

Of note is the fact that [several prisons](#) and jails in the US are already using biometric voice identification technology and geolocation tracking on prisoners and the non-prisoners they call on the phone.

Additionally, Hunter's plan to use wearables to move away from traditional prisons, first outlined a number of years ago, seems closer to coming to fruition than it did a few years ago. For example, in 2019, the DOJ gave a [grant](#) to researchers at Purdue University, to help them develop a wearables-based monitoring system for those who would otherwise be in prison. The electronic monitoring system was [deployed](#) in Tippecanoe County Corrections in [Indiana](#) under a "home detention" program.

What's more, the other half of Hunter's plan, utilizing AI to process prisoner communications and prevent crime, is already underway across the U.S.

Amazon now [markets](#) its AI transcription services to both [prisons and law enforcement](#). The company's AI system employs speech-recognition technology and machine learning software to build a database of words. As reported by [ABC News](#), "they then notify law enforcement partners when the system picks up suspicious language or phrasings."

"A year from now, all that slang could be obsolete — so investigators are constantly feeding new intelligence about

prison slang into databases tailored to their unique jurisdiction or regional area," explained ABC.

"We've taught the system how to speak inmate," said James Sexton, an executive at LEO Technologies, a company using Amazon's transcription services.

## "Solving" Crises By Surveilling Everything

Additionally, due to the COVID-19 crisis, the federal government has adjusted both opioid treatment policy and prison policy to cater more to new, wearables-based solutions.

Under the Trump Administration, the Federal Bureau of Prisons began [prioritizing](#) home confinement to limit the spread of COVID-19 in prisons. While those inmates were to report back to prison when the 'coronavirus emergency' was over, Biden recently extended the national emergency and the HHS expects the crisis to last at least through December.

Furthermore, also because of the COVID-19 crisis, the US Department of Health and Human Services amended its regulations in 2020 so that treatment for opioid addiction can now be done remotely. "The pandemic has made it possible to see a licensed provider from home," [reported the New York Times](#).

In addition, the use of these health-tracking wearables has grown by more than [35%](#) during the pandemic. "All of these surveillance technologies, like many other COVID-19 mitigations, are being rolled out rapidly amidst the crisis," explained the digital rights group [Electronic Frontier Foundation](#) (EFF).

Several wearable technologies have been marketed specifically as responses to the COVID-19 crisis, with a number focused solely on tracking the location of their users for social distancing or quarantining enforcement. "RightCrowd" is a lanyard employees can wear to help companies enforce social

distancing and contact tracing at the office. "SafeZone" is a wearable sensor that emits a light when people get within six feet of one another, and is currently being used by the [NFL](#). And, as reported by the Electronic Frontier Foundation ([EFF](#)), "Courts in Kentucky and West Virginia have mandated electronic ankle shackles for individuals who refused to submit to quarantine procedures after testing positive for COVID-19."
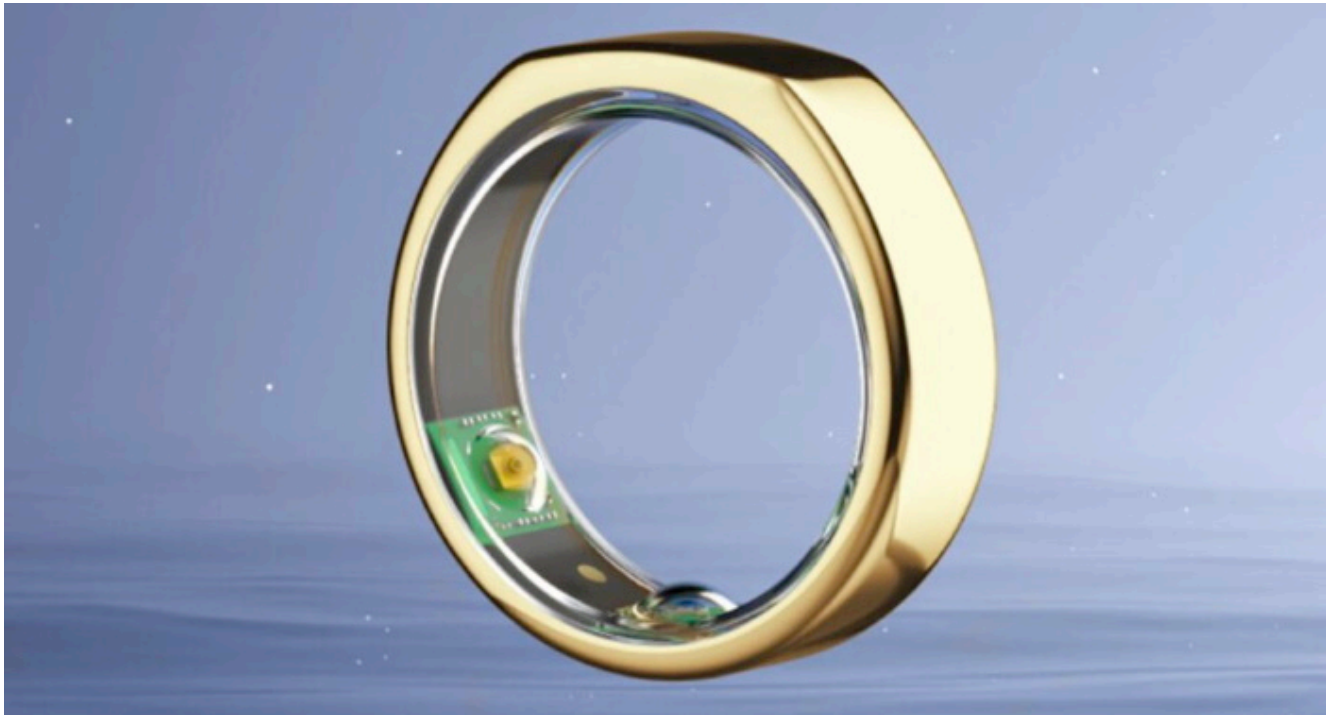


The Oura Ring biometric tracker. Source: https://ouraring.com/

Yet many of today's new wearables are capable of accessing data that goes far beyond one's location. The Oura Ring, a finger worn sleep tracker, monitors your temperature in order to predict the onset of fever in COVID-19, and is currently being [used by the NBA](#). Amazon's Halo, a wristband, will soon be able to detect COVID-19 symptoms. Halo scans the user's body and voice, monitors blood pressure, and is meant to "report back on your emotional state throughout the day." And, in March 2020, the US FDA granted Emergency Use Authorization to armbands made by a company called [Tiger Tech](#). The bands are designed to monitor blood flow and analyze pulse rate and hypercoagulation, an onset symptom of COVID-19.

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