## Visceral data: After heartbreak, IoT devices give us 'something to show'





It's been said the eyes are the windows to the soul. But these days, any seemingly nondescript Internet of Things device might be edging them out as the foremost portal to an individual's deepest secrets.

Consider, for example, the recent experience (http://www.buzzfeed.com/stephaniemlee/a-mans-fitbit-captured-the-exact-moment-he-felt-heartbreak#.amG5PNKxP) of Guesty founder and Tel Aviv University student Kobe Soto. "I wasn't doing anything, I didn't go to the gym, I didn't expect the Fitbit to even track me," said Soto. "It was just on me."

He's referring to his Fitbit Charge HR, a popular fitness tracker he'd worn for five months to collect and store information on his workouts. He didn't realize, however, that the device was still monitoring his heartbeat when he wasn't at the gym, silently mapping the day to the beat of his pulse.

Unremarkable, right? That is, until a midday phone call, after which Soto found himself suddenly and very unexpectedly single. His heart broke, and his Fitbit caught it.

More than just mere idiom, "heartbreak" is indeed a medical condition (http://www.bidmc.org/News/InMedicine/2012/January/BrokenheartCirculation.aspx), and as such, quantifiable. During situations of extreme emotional duress, doctors say both blood pressure and heart rate can rise and make one's chances of undergoing cardiac arrest all the greater. In Soto's case, his Fitbit picked up the exact moment he realized his relationship was over, impacting his pulse and by extension, his device.

Soto didn't realize what had happened until decompressing with a friend later that evening, when he went to check his heart rate with his Fitbit. He was shocked to see that at noon, when he got the breakup call, it had elevated from 72 to more than 88 beats per minute, "at one point nearly reaching 118, and finally dipped back to normal levels at night."

While Soto was relatively nonplussed by this revelation, others in the privacy world find the collection of such personal data severely troubling, at least, or in need of some serious legislation and ethical framework at most. "It was so simple in the physical world. Doors and walls are barriers. Windows may have shades," the Information Accountability Foundation's Martin Abrams lamented (http://informationaccountability.org/just-because-it-is-observable-should-it-be-seen/) in an op-ed on IoT data collection. "Think about your smart phone that senses your

he said.

"The digital world is considerably more complex," Abrams continued. "The Internet has made every pause over a pixel see-able and processed against experiences related to other pauses over other pixels ... there are appreciably more temptations to truly see."

Yet, to many, the newly-measurable nature of this highly visceral data — just being, as Abrams said — is a sort of comfort. Numbers can be highly sterile, offering to simplify a million emotions and melt them into something manageable, infinitely less messy, and easier to explain and control.

Heck, wearables can even help detect new life. That's what happened to this couple (http://www.cbsnews.com/news/fitbit-fitness-tracker-tells-woman-shes-pregnant/) who took to Reddit when they thought the woman's Fitbit was broken. Turns out, the Fitbit knew she was pregnant before she did!

Or, consider Laurie Frick's Frickbit app (http://www.frickbits.com/), which assigns a color scheme to a user's phone location data, eventually connecting the places the user has been into a colorful spider web of haunts. Her attitude towards data collection is an aggressive celebration of ownership, encouraging users to "take back your data and turn it into art!" in the app's online description.

A swell of cheeky rebellion didn't inspire me to add the Frickbit app. I merely worked at a privacy organization and thought it would be interesting to have a program prove how boring I am. Yet I remember scrolling through it one melancholy June afternoon, watching the data points hovering far off my normal routine. Home, church, graveyard, there there, stations in the unexpected funeral procession that my family took for my grandmother last spring.

I remember that in the midst of deep grief, it wasn't creepy that my phone knew where I was and kept tabs on it for my occasional perusal. Instead, I saw it as an unexpected and welcome glimpse of my gram, the entirety of my last human afternoon with her in the palm of my hand. Glancing at those simple pinpoints and their quiet, unblinking unfussiness provided me with an unadorned view of my loss.

It was real. It happened. It was okay.

Of his documented heartbreak, Soto seemed to agree. "I feel like it's nice to have a log of your confirmation of what you felt," he told Buzzfeed. "You can tell people you have heartbreak and you feel bad. People become less cynical once you show them the numbers or once you show the data or graphs. Everyone understands heartbreak, right? Everyone's felt it. When you have this, it's interesting — you have something to show."

Perhaps that's why we're so scared about our increasingly digitized and device-centric futures. Sure, there's the rise of data mining, the breaches, the targeted ads, and the potential for spying — yes, unsettling. But the rub with these IoT tools is that, in a way, they make us face what we're feeling and the effect our emotions have on our lives.

It's often easy for the media and privacy advocates to feel like all this data collection is part of some apocalyptic meltdown, but from my perspective, there can also be tremendous advantages that come from the collection of personal data. Navigating this fine line between protecting people's privacy while expanding what is possible with data is yet another important role privacy pros play, especially as the IoT world continues to expand.

Now, we'll have "something to show," as Soto said. These devices and the data they present can help us shift our concepts of beauty, and art, and even mystery, as our lives become less about just what we see and more on what we can measure and what we can know. And maybe, most frighteningly, our devices make us face the fact that you can put a price — or a number — on anything.

© 2022 International Association of Privacy Professionals. All rights reserved.

Pease International Tradeport, 75 Rochester Ave. Portsmouth, NH 03801 USA • +1 603.427.9200