

/dev/random Ambush Computing

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I recently read a piece about “ambient computing,” which is the idea that the next logical phase of digital evolution is to have computers controlling our lives without the nuisance of us having to operate them. I would argue that this revolution has already taken its nascent steps. Even a fossilized semi-Luddite like me is a prisoner of the fitness app on my iPhone, for example. Gotta get those steps in—and Heaven forbid I should walk down the hall without said tracker and so fail to get “credit” for the trip. That app is like a jealous lover who insists on monitoring my every move.

I have studiously avoided the frankly terrifying specter of the personal digital assistant who listens to—and worse, tries to interpret—every sound I make. I cannot comprehend why anyone would voluntarily allow their residence to be bugged while at the same time paying for the privilege. These digital Mata Haris with cutesy monikers that sound like European commuter compacts or adult film personalities are nothing less than corporate surveillance technology of the highest order.

Do you really want the intimate details of your physiology and psychology reduced to mere datapoints for the sustenance of invisible robot overlords? I know I don’t. Let us cast our nets out into the tepid waters of speculation and see what chimeras we drag in.

The odyssey begins as you’re walking up your front steps. The doorbell camera has found a match for your facial features and welcomes you by name, while the porch mat measures your gait and mass. The latter data is transmitted to the nearest Bluetooth node, where it is made available to other household smart devices so that they may nag you about your ballooning weight and sell you plus-sized apparel at the same time.

In the foyer your smart coatrack reminds you that rain is forecast for later in the day. The first of several motion detectors scattered about the domicile records your location, direction of travel, and velocity, thereby predicting that you are heading for the kitchen and preparing it for your arrival. As you enter the room the dishwasher pops open with clean dishes, while the icemaker changes cube size and shape according to preferences that its predictive algorithm has deduced from prior encounters. The refrigerator, meanwhile, has rearranged the order of frozen entrées in its shelves based on time of day and your prior choices.

The microwave reads the UPC label of your entrée for heating times and ingredients. If it concludes the meal contains more sodium or sugar than is good for you, it will sound an alarm and even refuse to prepare it. If you employ manual override, it will start running ads for dieting products and heart-healthy vitamin supplements.

Your après manger bathroom visit includes a toothbrush that adjusts for tartar buildup and any detected gum disease, while the mirror checks for signs of acne, melanoma, eczema, receding hairline, and numerous other conditions, offering ads for remedies via text message. Your toilet has its own set of sensors, analyzing...well, what you would expect them to analyze. It might tell your intelligent pantry to increase the number of high-fiber meals it suggests, along with offering ads for same.

Your medicine cabinet has its own two cents to put in, of course. Not only does it keep track of prescription medications and submit refill requests on your behalf, it offers helpful tips on products that purport to control chronic conditions like headaches, muscle pain, dizzy spells, and foot odor—the presence of which it surmises by your pharmacological habits. If it perceives frequent visits to your primary care practitioner, it might tell your produce drawer to suggest daily apple consumption.

The home electronic entertainment naturally enumerates your behavior in excruciating detail. Every second you spend online or streaming to some device is examined, profiled, categorized, and exhaustively analyzed. The very best bargains in televisions and monitors can be had on models with integrated cameras and microphones, ostensibly for your own convenience in the quest to share absolutely every moment of your life with friends, family, and social media followers, but incidentally also to enable even more intrusive surveillance to benefit advertisers. Everybody wins, right?

Tying this tangled mass of data collection together is a central repository or database server. It doesn't have to be a single machine, though: your house is already quite likely a mesh network hosting its very own data cloud. Aren't you special? The Internet of Things quite definitely includes your Things. Conveniently, you don't even have to do anything to accomplish this web of integration. It just magically happens, like climate change and congressional oversight.

Let's not forget those little buttons all over the house that are supposed to order products for you at one touch. What time-savers they are! No more dreary comparison shopping or coupon clipping: simply trust that the button brings you what you need. So modern. So monolithic. So antitrustworthy.

Your doorbell, your thermostats, your security system, your kitchen appliances, your toiletries, your home entertainment system, your telecommunications devices...all of them working together to make your life—and the lives of those who want you to be unable to avoid their advertising at every turn—easier.

Since many of these doohickeys phone home on a regular basis, you can bet your data makes the same trip in first class accommodations. Once comfortably ensconced at the far end, it is packaged and sold to anyone who ponies up the requisite cash. The real beauty of this arrangement is that you actually pay for the equipment used to spy on you—sometimes even on a recurring basis if you're subscribed to a service connected to it.

Not that any of this is remotely novel or even recently invented: talking consumers into bankrolling their own exploitation is in fact a time-honored Madison Avenue tradition. Graduate theses have been written on the various techniques for achieving it. Careers have been built on it. Mansions, private jets, yachts, and even islands have been purchased from its proceeds. Taxes from those proceeds have been adroitly evaded. This, then, is the cycle of commerce.

I seem to have slid down a slippery slope from ambient computing to tax fraud, but in my defense, there weren't many obstructions. Happy fishbowl consumerism, y'all.