



Technocracy's Final Frontier: The Takeover Of Your Body

Technocrats see your body as a holy grail of data collection that can in turn be weaponized against you to manipulate your behavior, thinking patters, buying decisions and life planning. □ TN Editor

Aram Sinnreich recently went grocery shopping at a Whole Foods Market in his hometown of Washington, D.C., and realized he had left his wallet at home. He had no cards and no cash, but he had no reason to worry — at least, not about paying for his food. “I used my iPhone to pay, and I unlocked it with my face,” he said.

That’s when it struck him: We are just one small step away from paying with our bodily features alone. With in-store facial-recognition machines, he wouldn’t even need his smartphone. Sinnreich, associate professor of communication studies at American University, said he got a glimpse of the future that day.

Biometric technology is infiltrating every other aspect of our digital lives. Next stop: replacing your wallet.

Biometric mobile wallets — payment technologies using our faces, fingerprints or retinas — already exist. Notable technology companies

including Apple AAPL, -0.01% and Amazon AMZN, -0.39% await a day when a critical mass of consumers is sufficiently comfortable walking into a store and paying for goods without a card or device, according to Sinnreich, author of “The Essential Guide to Intellectual Property.”

Removing the last physical barrier — smartphones, watches, smart glasses and credit cards — between our bodies and corporate America is the final frontier in mobile payments. “The deeper the tie between the human body and the financial networks, the fewer intimate spaces will be left unconnected to those networks,” Sinnreich said.

Companies are refining biometric services

After a slow start, the global mobile-payment market is expected to record a compound annual growth rate of 33%, reaching \$457 billion in 2026, according to market-research firm IT Intelligence Markets. As payments move from cash to credit cards to smartphones, financial-technology companies, known as fintechs, have been honing their biometric services.

Biometric technology, meanwhile, is infiltrating every other aspect of our digital lives. [Juniper Research forecasts that mobile biometrics will authenticate \\$2 trillion in in-store and remote mobile-payments transactions in 2023](#), 17 times more than the estimated \$124 billion in such transactions last year.

Juniper, a U.K.-based firm that provides research on the global high-tech communications sector, said it expects growth to be driven both by “industry standardization initiatives” like Visa’s Secure Remote Commerce and by the introduction by smartphone vendors of different forms of biometric authentication.

“Using biometrics as a method of payment is going to be pretty popular in the future,” said Hannah Zimmerman, associate attorney with Fey LLC in Leawood, Kan. She said this will be propelled by “the globalization of commerce” and the fact that companies in the U.S. will want to find new ways to facilitate cross-border transactions.

Frictionless payments lead to more spending

It will make shopping easier for consumers and, if studies on mobile payments provide a barometer, more lucrative for companies. A study carried out by researchers at the University of Illinois at Urbana-Champaign found that the number of actual purchases increased by almost one quarter when people used Alipay mobile payments.

The number of purchases increased by 24% when people used Alipay mobile payments.

Using a mobile wallet made people likely to spend more on food, entertainment and travel, the university study found. In dollar terms, people using mobile payments spent an average of 2.4% more than those who did not use them. One theory: If we don't handle credit cards or cash, we don't consider a transaction's consequences.

People who use Amazon's Echo smart speaker spend 66% more on average at the online retailer than other consumers, according to a survey of 2,000 Amazon customers from Chicago-based research firm Consumer Intelligence Research Partners. Of course, people who have the money to buy smart speakers may also have more to spend.

Still, it provides a window into the world of frictionless spending: Echo owners spend \$1,700 annually at Amazon versus \$1,300 among Amazon Prime members — who must pay a \$99 a year subscription — and \$1,000 for all Amazon customers in the U.S. Some people may have both Echo devices *and* Prime accounts. (Amazon did not respond to a request for comment.)

Facial recognition is already widely used

Facial recognition has already made its way into financial services. Mastercard MA, -0.24% and Visa V, +0.55% have security features that require people to use their faces to log into their accounts on their phones. Apple's iPhone X enables people to use "[Face ID](#)" to unlock their phones, and Samsung's SSNLF, +0.00% 005930, +1.31% [Galaxy S8 and](#)

[S8+ has an iris scanner](#). Amazon's Rekognition facial-recognition service can also identify both objects and people.

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The facial-recognition market is [projected to double to \\$9 billion](#) between 2018 and 2024, according to Mordor Intelligence, a consulting and analytics firm.

Juniper predicts that 80% of smartphones will have some form of biometric hardware by 2023, representing just over 5 billion smartphones. That has traditionally meant fingerprint sensors, but facial recognition and iris scanning will become more prominent over the next five years, with adoption surpassing 1 billion devices, Juniper forecasts.

China's biggest mobile-payment platforms, Ant Financial Services Group, the Alibaba-controlled BABA, -1.26% entity that operates Alipay, and Tencent Holdings Ltd. TCEHY, +0.16% 700, +0.59%, which runs WeChat Pay, have already launched facial-recognition machines at points of sale. They typically require customers to register for the first time via SMS.

In 2017, KPro, a KFC brand in Hangzhou, China, introduced Alipay facial-recognition technology at points of sale. Today, KFC YUM, +0.89% uses its Alipay's "Smile to Pay" facial recognition technology in more than 700 stores across China. (Before making their very first payment, customers must log in using their phone.)

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