



EYE IN THE SKY

Recently, my colleague and friend John F. Doane, MD, asked me if I knew anything about Amazon founder Jeff Bezos' ptosis (*Bezos' ptosis* makes an excellent tongue twister—almost as good as my personal favorite, *rural juror*). I had never noticed before, but a quick image search revealed that Bezos indeed has a significant right ptosis and possibly some right miosis. The images I found online demonstrate that he has had ptosis at least since high school.

How could I determine this? Thanks to the availability of images online, public figures have no semblance of privacy. For example, during the most recent presidential election, right-leaning observers obsessed over visual clues regarding Hillary Clinton's health and her sudden reliance upon Fresnel prism glasses after suffering a concussion.¹ On the other side of the political spectrum, left-leaning psychiatrists used their powers of remote observation to simply declare that Donald Trump was afflicted with a dangerous mental illness.²

Many of our lasers use iris registration to recognize and track our patients' eye movements, but this technology is now so ubiquitous in everyday life that my phone offers the option of iris, fingerprint, or facial recognition. More and more, facial recognition is used for security screening and law enforcement at public venues.³ Action movies have taught us that surveillance and identification of any given individual can be accomplished from outer space or with the tens of thousands of closed-circuit television (CCTV) cameras dotting major cities. This is now becoming a reality. The city of London alone has more than 51,000 CCTV surveillance cameras currently in operation.⁴ Rest assured that, if you live in a city, your activities are likely recorded on video.

What about digital assistant systems like Siri, Alexa, Cortana, and Google Assistant? This software is found in everything—phones, speakers, lamps, and even vacuum cleaners—and they are always listening.^{5,6} If that does not make you uncomfortable, consider that many smart TVs are vulnerable to hacking, allowing *them* to watch and record *you*, as opposed to the other way around.⁷ Even in our homes, an incredible amount of information is gathered about most of us on a regular basis. If the digital universe doesn't already contain enough data on any given individual, consider that the average millennial is projected to take more than 25,000 selfies in the course of his or her lifetime.⁸

Ubiquitous surveillance obviously serves as a valuable tool in providing security, and CCTV surveillance cameras *do* reduce crime.⁹ However, privacy advocates are quite rightly

concerned about where this may lead. Some might say that, unless you have something to hide, there is no cause for concern. But it is now possible to track where you go, what you say, what you buy, and even your day-to-day appearance.

Theoretically, there are many benefits that could flow from using artificial intelligence to monitor biometric markers. Early iterations of this allow arrhythmia detection and blood pressure tracking. Insurers might be interested in surveilling us for early signs of a health condition, or even the bad habits that might lead to one. On one hand, this might be a valuable feature, but on the other, this kind of information could be used to screen out undesirable insurance risks.

Regardless of the outcome, it is clear that we are observed to a degree never before experienced in human history. This trend will only accelerate, and the data collected will be of higher resolution and quality in the future. Perhaps, one day, Mr. Bezos will receive a text stating that Alexa thinks he might have Horner syndrome. Until then, he will have to rely upon a couple of bored ophthalmologists looking at photos of him online. ■

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