Can Your Eyes Reveal Your Personality?

Artificial intelligence may be able to determine a person's personality by tracking his or her eye movements.

August 2, 2018 By Alicia Green

It's been said that if someone's eyes are forever darting about, that person may very well be untrustworthy. Now, new findings reveal that artificial intelligence may predict personality simply by tracking the movement of an individual's eyes, reports the University of South Australia (UniSA).

Researchers from UniSa and Flinders University in South Australia collaborated with scientists from the University of Stuttgart and the Max Planck Institute for Informatics in Germany for the experiment.

Using state-of-the-art machine-learning algorithms, researchers tracked the eye movements of 42 participants while they completed everyday tasks around a university campus. In addition, individuals' personality traits were assessed with the help of well-established questionnaires.

Scientists determined that the motion of a person's eyes revealed whether he or she was sociable, conscientious or curious. (The algorithm software accurately identified four of "the big five" personality traits: openness, neuroticism, extroversion, agreeableness and conscientiousness.)

According to Tobias Loetscher, PhD, a senior lecturer in the School of Psychology, Social Work and Social Policy at UniSA, these findings open the door for improved interactions between humans and machines. In the future, robots and computers could become more natural and better at interpreting human social signals, he said.

Loetscher suggested that the study is key because it bridges the gap between tightly controlled laboratory studies and the study of natural eye movements in real-world environments.

"Thanks to our machine-learning approach, we not only validate the role of personality in explaining eye movement in everyday life but also reveal new eye movement characteristics as predictors of personality traits," Loetscher said.

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