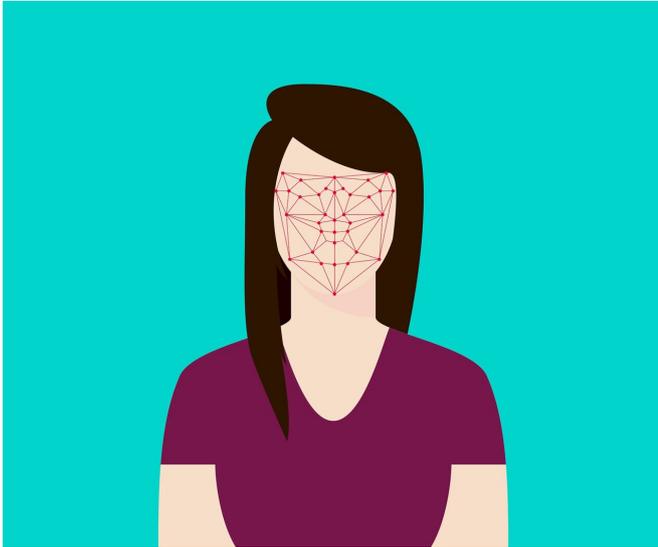# Amazon improves face analysis tech, adds fear

15 August 2019, by Nancy Cohen

Credit: CC0 Public Domain

Amazon's image recognition software is now able to detect fear. Amazon Web Services announced this as part of an update note about its facial recognition software, Rekognition.

The software was already touted as able to read seven emotions—Happy, Sad, Angry, Surprised, Disgusted, Calm and Confused. Rekognition improved on accuracy and Fear has been made number eight.

The company issued a rather brief press release about it on August 12. Amazon claimed it can also accurately identify a person's age range and gender; it works with both video and still images. Improved face analysis models are now available for Amazon Rekognition image and video.

This was their announcement:

"Amazon Rekognition provides a comprehensive set of face detection, analysis, and recognition features for image and video analysis. Today, we are launching accuracy and functionality improvements to our face analysis features. Face analysis generates metadata about detected faces in the form of gender, age range, emotions, attributes such as 'Smile', face pose, face image quality and face landmarks. With this release, we have further improved the accuracy of gender identification. In addition, we have improved accuracy for emotion detection (for all 7 emotions: 'Happy', 'Sad', 'Angry', 'Surprised', 'Disgusted', 'Calm' and 'Confused') and added a new emotion: 'Fear'. Lastly, we have improved age range estimation accuracy; you also get narrower age ranges across most age [groups](#)."

The announcement lands at a time when Rekognition continues to be part of debate over a controversial technology, as, among other uses, it can help law enforcement spot people who are acting suspiciously in public.

As Bryan Menegus, *Gizmodo*, observed, "The [cloud](#) giant has updated its [facial recognition software](#) as regulators mull the privacy concerns of the technology."

Ben Fox Rubin in March delivered a wrapup of the privacy issue vis a vis [facial recognition technology](#).

"Facial recognition represents a [watershed](#) in policing tactics, sometimes letting authorities like the WCSO solve investigations in hours instead of days. Agencies including the Federal Bureau of Investigation now use [facial recognition](#) databases, while other [police forces](#) are looking into the technology, raising the prospect of broader adoption in law enforcement."

Such sophisticated technology rapidly analyzes images using computer vision and deep learning but there are "[fears](#) of Big Brother-style mass surveillance of the public, which is why civil liberties groups are working to stop police from using the

technology."

He added that "This clash of community safety versus personal privacy has quickly turned facial recognition into a controversial issue."

What about Rekognition per se? What is its technology foundations and what does it accomplish?

"Rekognition Image is based on the same proven, highly scalable, [deep learning](link) technology developed by Amazon's [computer](link) vision scientists to analyze billions of images daily for Prime Photos," said the company. "The service returns a confidence score for everything it identifies so that you can make informed decisions about how you want to use the results. In addition, all detected faces are returned with bounding box coordinates, which is a rectangular frame that fully encompasses the face that can be used to locate the position of the face in the image."

Amazon had this to say abut its facial analysis powers.

"Amazon Rekognition can detect emotions like happy, sad, or surprised from facial images." It provides "highly [accurate](link) facial analysis and facial recognition on images and video that you provide. You can detect, analyze, and compare faces for a wide variety of user verification, people counting, and public safety use cases."

The site noted it "requires no machine learning expertise to use. Amazon Rekognition is a simple and easy to use API that can quickly analyze any image or video file stored in Amazon S3. Amazon Rekognition is always learning from new data, and we are continually adding new labels and facial recognition features to the service."

"You can [analyze](link) the attributes of [faces](link) in images and videos you provide to determine things like happiness, age range, eyes open, glasses, facial hair, etc. In video, you can also measure how these things change over time, such as constructing a timeline of the emotions of an actor."

Responding to the privacy debate, Amazon earlier this year let the world know its way of looking at the issue.

"[New](link) technology should not be banned or condemned because of its potential misuse," Michael Punke, Amazon Web Services' vice president of global public policy, said in a blog post in February. "Instead, there should be open, honest and earnest dialogue among all parties involved to ensure that the technology is applied appropriately and is continuously enhanced."

Catherine Ellis in *TechRadar*: "Rekognition might now be more accurate, but Amazon has its [work](link) cut out making facial [recognition](link) palatable in public spaces."

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