



Shutter2U/iStock/Getty Images Plus

Police Using DNA to Generate AI Images of Suspects

Since the discovery of the first human genome sequences of DNA, or deoxyribonucleic acid, scientists have made incredible revelations that have led to medical advances and ancestry determination, and have assisted in forensic studies. Last week, the Edmonton Police Service (EPS) of Edmonton, Alberta, Canada, for the first time in its history, used DNA phenotyping in the hopes of identifying a suspect in a 2019 sexual assault.

Using DNA evidence from the case, a company called [Parabon NanoLabs](#) created a computer-generated image of a suspect, a young black man, which the EPS then [released](#) to the public via social media. The composite image did not factor in the suspect's age, weight, or factors such as facial hair, tattoos, and scars. It was nothing more than a final attempt by the EPS to find the suspect after all other investigative avenues had been exhausted.

The victim of the violent sexual assault gave the EPS limited information about the suspect, describing him as 5'4", with a black [togue](#), pants, and sweater or hoodie. He was described as having an accent. But after a long investigation where no witnesses, CCTV, public tips, or DNA matches were found, detectives took the step of enlisting Parabon NanoLabs, a DNA technology company in Virginia that specializes in advanced DNA analysis services.

The EPS press release [stated](#), "Using DNA evidence from this investigation, Parabon produced trait predictions for the associated person of interest (POI). Individual predictions were made for the subject's ancestry, eye color, hair color, skin color, freckling, and face shape. By combining these attributes of appearance, a "Snapshot"

The New American

Author: [David Kelly](#)

Date: October 11, 2022



composite was produced depicting what the POI may have looked like at 25 years old and with an average body-mass index (BMI) of 22. These default values were used because age and BMI cannot be determined from DNA.”

“It is important to note that DNA phenotyping composites are scientific approximations of appearance based on DNA, and are not likely to be exact replicas of appearance.”

In addition to the victims limited description of the suspect, DNA analysis indicated he is a black male of entirely African ancestry with dark brown to black hair and dark brown eyes who reportedly stands approximately 5’4”.

The suspect’s description, along with the AI-generated photo that the EPS released quickly, produced a huge push-back from the public, leading the EPS to remove the picture. The image was slammed for being inaccurate and was even labeled as racist by some Twitter users.

The Sun [reported](#) that a genetics lecturer at University College London, Dr. Adam Rutherford, responded by [tweeting](#): “Geneticist here. You can’t make facial profiles or accurate pigmentation predictions from DNA, and this is dangerous snake oil.” Another person tweeted, “This is why we want the police defunded. You’re wasting money on racist astrology for cops.”

EPS chief operating officer for the Community Safety and Well-being Bureau, Enyinnah Okere, released a [statement](#) after pulling down the AI image.

“Any time we use a new technology — especially one that does raise concerns about profiling of a marginalized group — we cannot be careful enough in how we validate these efforts and fully, transparently consider the risks,” Okere said.

Okere added, “We have heard legitimate external criticism and we have done our own gut checks internally to determine whether we got the balance right — and, as a leader, I don’t think I did. While the tension I felt over this was very real, I prioritized the investigation — which in this case involved the pursuit of justice for the victim, herself a member of a racialized community, over the potential harm to the Black community. This was not an acceptable trade-off and I apologize for this.”

Okere then listed the steps that the EPS was going to take, including removing visuals for the website and social media. He then stated, “we will be reviewing our internal processes to better ensure the appropriate, robust and stress-tested tools are in place to better inform our decisions on such matters going forward”

Not wanting to give up on this case, Okere closed his comments with, “We will continue to prioritize and explore every conceivable and appropriate means to find justice for the victim in this case — she deserves our continued efforts and focus, and we will not give up on our efforts for her.”

Although DNA forensics can greatly assist in solving crimes, it is quite apparent that the current AI-generated imagery is far from accurate and should not be used in any investigation. The EPS learned this lesson the hard way.

However, DNA science is still evolving, and could very well produce accurate AI images one day in the near future. If that does happen, you could expect police forces around the world to use the technology to assist them in hard-to-solve cases, which then should lead to the adoption of new legislation to protect the innocent from potential abuses by law enforcement.