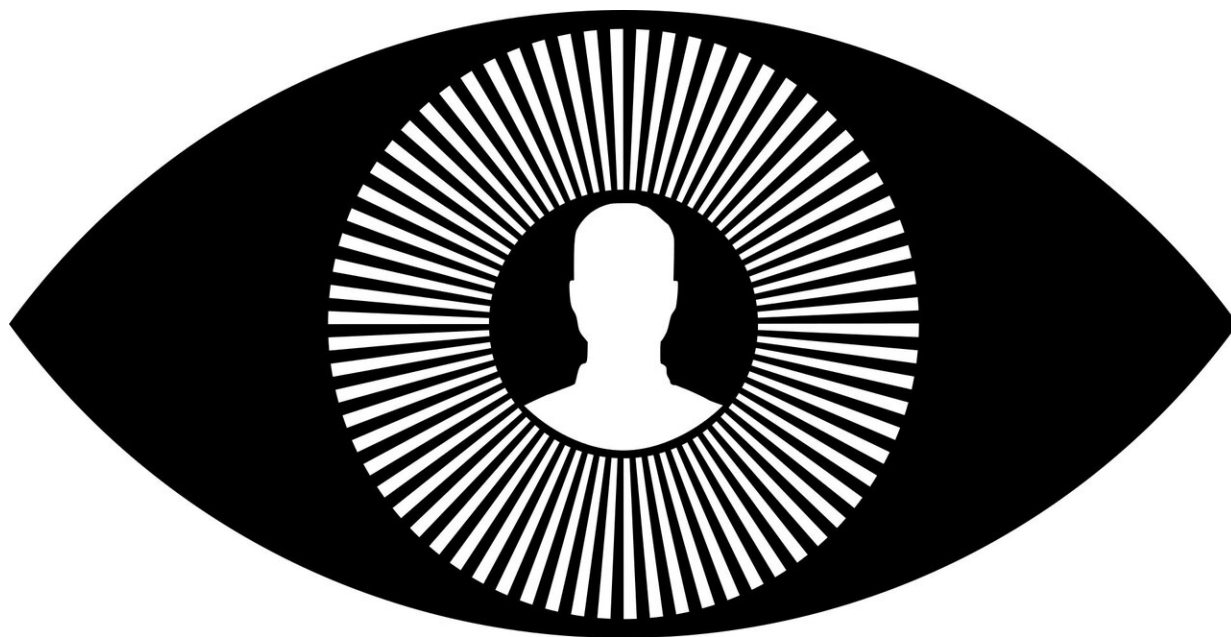


# Major camera company can sort people by race, alert police when it spots Uighurs

February 10 2021, by Johana Bhuiyan and Alice Su

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Credit: CC0 Public Domain

Facial recognition software developed by China-based Dahua, one of the world's largest manufacturers of video surveillance technology, purports to detect the race of individuals caught on camera and offers to alert police clients when it identifies members of the Turkic ethnic group Uighurs.

Dahua, though among Chinese companies sanctioned by the U.S.

government, has a growing presence in the country with sales and support offices in Irvine and Houston. Despite restrictions on its business within the country, the company struck a deal, reportedly valued at \$10 million, with Amazon for 1,500 thermal cameras and there are 80 public contracts to purchase the company's equipment in California alone.

Screenshots of Dahua platforms, provided to The Times by video surveillance research organization IPVM, raise troubling privacy concerns. A user guide for a service targeted at law enforcement clients indicates the company's technology can send a warning when it detects someone it identifies as Uighur; a consumer-facing product offers a feature to sort by race individuals who pass in front of its cameras.

It's unclear if these features have been deployed in real-world applications, which features are available in specific markets, and whether any of them are available in products sold to U.S. companies and agencies. Dahua did not respond to multiple requests for comment.

The previously unreported features come to light weeks after the U.S. government officially declared that China's campaign against the largely Muslim ethnic Uighur minority is genocide. New details about the oppression of Uighurs in Xinjiang have emerged after former detainees spoke to the BBC and alleged that women in the "reeducation" camps were systematically raped. The Associated Press reported Uighur women had been systematically sterilized to curb the population. Some have been sent to forced labor camps that are reportedly tied to dozens of U.S. brands. Others have disappeared without a trace, leaving their families to quietly wonder where they have gone.

Bugra Arkin, 30, is among those who fear for the safety of his family members. Arkin, who came to Southern California to pursue his master's degree at USC, hasn't heard from or spoken to his father since 2018. His conversations with his mother—still living in Xinjiang's capital,

Urumqi—over messaging app WeChat are measured and veer away from any discussion of his father or where he could be. She told Arkin that she had to download an app that monitors her phone activity and must report calls she receives at night to police the next day.

Arkin, who has tried to bring awareness to the Uighur genocide in a petition to the United Nations, said he worries that any technology that has ties to the Chinese government could be used against not just him but anyone in the U.S. "People are very naive here because they have no idea how is our life in China," Arkin said.

"There is no privacy in China," he said.

Dahua was added to the U.S. entity list in 2019, along with 27 other companies including the tech giant Huawei, for its ties to "human rights violations and abuses in the implementation of China's campaign of repression," according to the Department of Commerce. The U.S. doesn't restrict American companies or agencies from buying from companies on the list—it urges caution when doing so—but blocks those foreign companies from buying American products.

New details shared with The Times show Dahua developed capabilities that could further China's campaign against Uighur Muslims.

Screenshots provided by IPVM show product support documents for Dahua's police surveillance platform that include several references to "real-time warning for Uighurs."

Screenshots show that the real-time warning feature requires specific equipment to "support reporting Uighur attributes."

The documents also reference "real-time warning for non-local Uighurs."

Along with tracking members of the ethnic group, the service touts its broad facial recognition capabilities. The documents say this service can categorize every face detected for "similar or same passerby photos."

A guide for a different Dahua policing tool lists categories of people the company can track, including "Uighurs with hidden terrorist inclinations," a screenshot shows.

Dahua's stated ability to use its technology to identify Uighurs was first exposed in November by engineer Serge Bazanski thanks to code the company posted from its software development kit on the public code-hosting platform Github. Among the attributes the code could filter was "EM-NATION-TYPE-UYGUR = 1."

Dahua pulled the code shortly after Bazanski tweeted about it.

At the time, Dahua said in a statement to the South China Morning Post that it "does not sell products that feature [an] ethnicity-focused recognition function."

Additional screenshots from a consumer-facing Dahua platform for examining footage captured using company cameras show a "race" filter available to some users. Other categories included in the company's face recognition filters include age, gender, whether an individual is wearing a mask and whether an individual has a beard. These categories can be used to scan existing video footage and focus future recordings on individuals who meet the chosen criteria.

An archived version of Dahua's publicly available software development kit shows a way the company categorizes people by race: EM-RACE-UNKNOWN = 0, EM-RACE-NODISTI = 1, EM-RACE-YELLOW = 2; EM-RACE-BLACK = 3 and EM-RACE-WHITE = 4.

The consumer-facing race filter alarmed Daniel Lewkovitz, chief executive of Calamity Monitoring, an Australian security company. Lewkovitz said he found the function when using the platform, called SmartPSS, on his desktop computer to look through footage to help the police in a criminal matter. His [company](#) will stop working with Dahua because of human rights concerns, he said.

"As soon as I became aware of it, I was absolutely appalled by it and I issued an instruction to my senior management that we are going to be moving away from this vendor," Lewkovitz said.

Although being on the entity list doesn't preclude Dahua from selling equipment to U.S. companies, the National Defense Authorization Act has since August prohibited the use of federal funds to enter into, extend or renew any contracts to purchase Dahua equipment. But at least one California contract to purchase Dahua equipment—the biggest in the state, according to public procurement data—used federal funding.

According to purchase documents reviewed by The Times, Modesto City Schools paid \$362,000 to buy and install 57 Dahua camera kits in buses in October. School district spokeswoman Becky Fortuna said the cameras were purchased using federal funds and were intended to enhance the district's contact-tracing efforts on school buses.

Fortuna said the district was not aware that Dahua was on the entity list or that there were bans on using federal funding to purchase Dahua equipment. The district is seeking advice on how to proceed with the existing camera systems it has installed, she said, but won't be buying any more Dahua equipment.

Considering the U.S. government has already censured numerous Chinese companies on human rights grounds, anyone doing business with companies such as Dahua—even if those deals are legally

compliant—should take into account the genocide against the Uighurs, Arkin said.

"China is buying those technology and those hardware to monitor us and destroy our lives," Arkin said.

Arkin's concerns about the Chinese government's ability to monitor him come from experience. During his last trip to China in 2017, he said, he was interrogated by police on three occasions about his education in the U.S., whether he's trying to raise awareness about Uighurs in China and whether he had spoken to any foreign officials. On one occasion, he said, police took pictures of his face from every angle, a blood sample, a voice recording and eyelash samples.

"Face recognition is very dangerous," he said. "They took my photo from every angle so even if I wear a mask they can still catch me."

Police told him it was part of normal procedures and he was too scared to say no, he said.

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