**The End of Privacy as We Know It?**

**Hosted by Michael Barbaro; produced by Annie Brown and Daniel Guillemette; with help from Michael Simon Johnson; and edited by Paige Cowett and Larissa Anderson**

**An unregulated facial recognition app can probably tell the police your name, and help them find out where you live and who your friends are.**

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[Music]

Michael Barbaro

From The New York Times, I’m Michael Barbaro. This is “The Daily.”

Today: A secretive company promising the next generation of facial recognition software has compiled a database of images far bigger than anything ever constructed by the U.S. government. The Daily’s Annie Brown speaks to reporter Kashmir Hill about whether the technology is a breakthrough for law enforcement or the end of privacy as we know it.

It’s Monday, February 10.

Annie Brown

Kashmir, how did this story come to you?

Kashmir Hill

So I got an email. It was a Wednesday morning. I was checking my phone. And it was from a tipster who had gotten a bunch of documents from police departments. And one of the police departments had sent along this memo about a private company that was offering a radical new tool to solve crimes using facial recognition.

Annie Brown

And what would make a facial recognition tool radical?

Kashmir Hill

So law enforcement has for years had access to facial recognition tools. But what this company was offering was unlike any other facial recognition tools that police have been using, because they had scraped the open web of public photos — from Facebook, from Venmo, from Twitter, from education sites, employment sites — and had a massive database of billions of photos. So the pitch is that you can take a picture of a criminal suspect, put their face into this app and identify them in seconds.

Annie Brown

And when you read this memo, what do you make of what this company is offering?

Kashmir Hill

So I’ve been covering privacy for 10 years, and I know that a technology like this in public hands is the nightmare scenario.

[Music]

This has been a tool that was too taboo for Silicon Valley giants who were capable of building it. Google in 2011 said that they could release a tool like this, but it was the one technology they were holding back because it could be used in a very bad way.

Annie Brown

And why exactly is this kind of technology this line in the sand that no one will cross? What makes it so dangerous?

Kashmir Hill

So imagine this technology in public hands. It would mean that if you were at a bar and someone saw you and was interested in you, they could take your photo, run your face through the app, and then it pulls up all these photos of you from the internet. It probably takes them back to your Facebook page. So now they know your name, they know who you’re friends with, they can Google your name, they can see where you live, where you work, maybe how much money you make. Let’s say you’re a parent and you’re walking down the street with your three-year-old. Somebody can take a photo of you and know where the two of you live. Imagine you’re a protester in the U.S. or in a more authoritarian regime. All of a sudden they know everything about you, and you can face repercussions for just trying to exercise your political opinions. If this app were made publicly available, it would be the end of being anonymous in public. You would have to assume anyone can know who you are any time they’re able to take a photo of your face.

Annie Brown

And so that technology is what this company is pitching these police departments?

Kashmir Hill

Exactly.

Annie Brown

And what do you know about this company at this point?

Kashmir Hill

So at this point, all I really know is that the company is called Clearview AI. And so the first thing I do is Google it. And I find their website, which is clearview.ai. And the website is pretty bare, but there’s also an office address listed there, 145 West 41st Street, which happens to be just a couple of blocks from The New York Times office.

Annie Brown

Right.

Kashmir Hill

So I decided to walk over there, and there just is no 145 West 41st Street. So that was weird. So now I have this company that’s offering this radical new tool —

Annie Brown

It’s got a fake address.

Kashmir Hill

It’s got a fake address, which is a huge red flag.

Annie Brown

So what you do next?

Kashmir Hill

I found the company on LinkedIn. It only had one employee listed, a sales manager named John Good, which —

Annie Brown

John Good.

Kashmir Hill

John Good. It seemed like it could also be fake. And I sent that person a LinkedIn message and never heard back. So one of the things I find online is a website called PitchBook that lists investments in start-ups. And so it says that this Clearview AI has received $7 million from a venture capital firm and from Peter Thiel — you know, a big name in Silicon Valley, invested in Facebook and Palantir. So I reach out to his spokesperson, and he says I’ll get back to you. I never hear from him again. And then one day, I open up Facebook, and I have a message from a friend whose name I don’t recognize. And he says, hey, I hear you’re looking into Clearview AI. I know them. They’re a great company. How can I help?

Annie Brown

And you don’t know who this guy is?

Kashmir Hill

I don’t. I mean, it’s a guy I met once 10 years ago. And somehow he knows that I’m looking into this company. But I’ll take it. You know, finally —

Annie Brown

Right!

Kashmir Hill

— somebody wants to talk to me about Clearview AI. And so I say, hey, can I give you a call? And then he doesn’t respond, which I’m getting used to.

Annie Brown

You just can’t catch a break.

Kashmir Hill

I know. I’m like, I cannot believe this is another dead end.

So phone and email are not working for me. So I just need to figure out another door to knock on to try to talk to a real human being. And one of the investors in the company is this venture capital firm that has an office in Bronxville, New York. So on a cold, rainy Tuesday, I got on the train and headed to Bronxville. I get to the company’s address. It’s just like in a retail space. And go inside. There’s this long, quiet hallway of office suites, and this venture capital firm is at the very end. And I knock on the door, and there’s no one there. So I start trying to talk to their neighbors, and a woman who works next door says, oh yeah, they’re never here. So I’m walking down the stairs to go back out of the building, and two guys walk through the door. They’re both in dark suits with lavender and pink shirts underneath, and they just kind of look like V.C.s to me. So I say, hey, are you with this venture capital firm? And they say, we are. Who are you? And I was like, I’m the New York Times reporter who’s been trying to get in touch with you. And they said, the company has told us not to talk to you. And I said, well I’ve come all the way out to Bronxville. Can we just chat for a little bit? And they say, O.K. If probably helps that I’m very pregnant, and they offered me water. And they just start telling me everything.

[Music]

Annie Brown

And what do they tell you?

Kashmir Hill

They confirm that they’ve invested in Clearview AI and that Peter Thiel has also invested. They identified the genius coder behind the company, this guy named Hoan Ton-That. And they say he’s Vietnamese royalty but he’s from Australia. And they also tell me that Hoan is the one that was using the fake name John Good on LinkedIn.

Annie Brown

He’s John Good.

Kashmir Hill

He’s John Good.

And they confirm that law enforcement is already using the app. And that law enforcement loves it and that it’s spreading like wildfire.

Annie Brown

Wow.

Kashmir Hill

So I’ve learned some stuff from these two investors, but no one from the company is talking to me still. So in the meantime, I am also reaching out to law enforcement, because I want to know if this app really works as well as the company claims. By this point, I had learned that over 600 law enforcement agencies had tried the app, including the Department of Homeland Security and the F.B.I.

Annie Brown

Wow. It’s not just local police departments. This is being used by the federal government already.

Kashmir Hill

Yeah, I mean, I was just shocked to discover how easily government agencies can just try a new technology without apparently knowing much about the company that provides it. So I talked to a retired police chief from Indiana, who was actually one of the first departments to use the app. And they solved a case within 20 seconds, he said.

Annie Brown

A case they hadn’t been able to solve?

Kashmir Hill

That they hadn’t been able to solve. One of the officers told me that he went back through like 30 dead-end cases that hadn’t had any hits on the government database, and he got a bunch of hits using the app. So they were really excited about it.

Annie Brown

This is way more effective than what they were using before.

Kashmir Hill

Exactly. With the government databases they were previously using, they had to have a photo that was just a direct full-face photo of a suspect — like mug shots and driver’s license photos. But with Clearview, it could be a person wearing glasses, or a hat, or part of their face was covered, or they were in profile, and officers were still getting results on these photos.

Annie Brown

Wow.

Kashmir Hill

But the most astounding story I was told was that investigators had this child exploitation video, and there was an adult who was visible in the video just for a few seconds in the background. So they had this person’s face. They had run it through their usual databases and not gotten anything back. But then they ran his face through Clearview’s app, and he turned up in the background of someone else’s gym selfie. You could see his face in the mirror. And so they figured out what gym this photo was taken out. They went to the gym. They asked the employees, do you know who this is? And the employee said, we can’t tell you. We have to protect our members’ privacy. But then later, the detectives got a text from somebody who worked there identifying the person. And that — I mean, that’s just something that would not have been possible without Clearview’s app.

So because officers were telling me the tool works so well, I wanted to see it for myself, on myself. And I asked them if they would run my photo through the app. But every time I did this, things would get weird. The officers would tell me that they ran my photo and there were no results.

Annie Brown

No pictures of you?

Kashmir Hill

There were no pictures of me, which was really weird, because I have a lot of photos of myself online. And then officers would just stop responding to me or talking to me. And I had no idea what was going on until one officer was kind enough to explain to me.

[Phone Ringing]

Officer

*Hello, how are you.*

Kashmir Hill

*Hey. It’s Kashmir.*

Officer

*Yes, hi. Mm-hmm.*

Kashmir Hill

I’m keeping this officer anonymous because he could get in serious trouble for talking to me so openly about Clearview.

Kashmir Hill

*If you could just describe yourself, to the extent that you can describe yourself.*

Officer

*I’m a police officer at a large metropolitan police department.*

Kashmir Hill

So he’s a cop who was doing a 30-day free trial of the app. And he was really impressed with it. So I asked him if he wouldn’t mind running my photo.

Annie Brown

And what did he tell you happened when he sent your picture through?

Officer

*Yeah, nothing. I didn’t get a response at all.*

Kashmir Hill

*No results?*

Officer

*No results. And within a couple of minutes of me putting your photo up there — maybe five, less than 10 — I got a phone call from the Clearview company. They wanted to know why I was uploading a New York Times reporter’s photo.*

Kashmir Hill

*That is so wild. I don’t know. [LAUGHS] It creeps me out as a reporter. I mean yeah, it just —*

Officer

*It kind of creeped me out as a user.*

Kashmir Hill

So this implied that Clearview flagged my face in their system such that they got an alert when a police officer ran my face. Which I found —

Annie Brown

Wow.

Kashmir Hill

— very alarming, because this is telling me for the first time that this company is able to monitor who law enforcement is looking for, and not just know who they’re looking for, but manipulate the results. And so then that made me go back to the earlier officers who had run my photo. And they all confirmed, yes, I got a call from the company, and they said, we’re not supposed to be talking to the media.

[Music]

Kashmir Hill

*So were you able to keep using the app after that?*

Officer

*My account was deactivated.*

Kashmir Hill

*Did you ever get access back?*

Officer

*I never did. But I have colleagues that have access. So if I were to need a picture searched, I could just email it to them and they can email me the results.*

Kashmir Hill

*And you think the trade-offs are worth it, in terms of what the company has access to?*

Officer

*Do I think it’s worth it? So from a law enforcement perspective, it’s worth it. We get a lot of cases, and we don’t usually have a lot of leads. And so anything that can — honestly, anything that can help us solve a crime is a win for us. From a privacy perspective, it’s rather frightening the amount of information that they were able to get and provide. As long as they’re doing it for the right reasons, then everything will work out. Let’s put it that way.*

[Music]

Kashmir Hill

But the problem is we don’t know anything about the company at this point. We don’t know if there’s any kind of oversight. We don’t know who the people are that are operating this and what their intentions are with their product. The person in charge of the company won’t talk to me. But then, it’s the end of December when I get a call from the company’s spokeswoman. And she says that the founder, Hoan Ton-That, is ready to talk.

Michael Barbaro

We’ll be right back.

Kashmir Hill

*Do you have a hard stop?*

Hoan Ton-That

*No I don’t actually. 12:30.*

Lisa Linden

*12:00 noon.*

Hoan Ton-That

*Oh, 12:00 noon.*

Kashmir Hill

*I have no hard stop.*

Lisa Linden

*Oh.*

Kashmir Hill

*And I have lots of questions, so I’ll take as much time as you can give me.*

Annie Brown

So Kashmir, you finally got an interview with the founder of Clearview, this man named Hoan Ton-That. Where do you meet him?

Kashmir Hill

So we met in a WeWork in Chelsea. He came down to the lobby.

Kashmir Hill

*You like New York, you’re going to stay here?*

Hoan Ton-That

*Oh, yeah.*

Kashmir Hill

And his appearance surprised me, because I had Googled him online and there are a lot of photos of him. And he’s usually pretty eccentric — like a lot of paisley shirts, he’s at Burning Man.

Hoan Ton-That

*Let’s go to the back room.*

Kashmir Hill

But in person he was very conservative. He was in this dark blue navy suit with a white button-up and leather shoes. So he looked very much like the security start-up entrepreneur.

Annie Brown

He was looking the part.

Kashmir Hill

He was looking the part.

Kashmir Hill

*When were you born? How old are you?*

Hoan Ton-That

*‘88, so I’m 31.*

Kashmir Hill

*O.K.*

Annie Brown

And what do you learn about him?

Kashmir Hill

So he is 31. He grew up in Australia, but you can’t hear that in his voice.

Hoan Ton-That

*I love computers, obviously.*

Kashmir Hill

*Yeah, so how did you get interested in technology?*

Hoan Ton-That

*We had a computer, of course, when I was four or five years old.*

Kashmir Hill

So his family got a computer when he was three or four, and he was always tinkering with computers growing up.

Hoan Ton-That

*We got the internet when I was 10, I think. And then you could discover all these things online. But Linux, I was like I have to get this thing. It’s the nerdiest thing ever. I convinced my dad. We installed it, and I would spend the whole summer reinstalling and learning Linux stuff, staying home from high school and learning programming for fun. So that’s — I just really liked it.*

Kashmir Hill

He enrolled in college, decided to drop out like many technologists do, and moved to San Francisco when he was 19.

Hoan Ton-That

*— 2007, before it was a big thing, right? It was kind of getting there, but it wasn’t huge.*

Kashmir Hill

This is 2007, and this is kind of a boom time. The iPhone has just come out.

Hoan Ton-That

*That’s the Facebook app era. Remember that?*

Kashmir Hill

*Yeah.*

Kashmir Hill

People are becoming millionaires by making Facebook games. And he wants to be the next big app guy.

Hoan Ton-That

*Being there is a lot different from reading about it online. You absorb a lot more of how people get things done. And you learn a lot more secrets.*

Annie Brown

What did he built?

Kashmir Hill

So the Facebook apps were like “would you rather” apps and kind of like romantic GIFs.

Hoan Ton-That

*Did Some of the first iPhone games as well.*

Kashmir Hill

One of his most recent apps was called Trump Hair, and it was an app for adding Trump’s hair to your photos.

Annie Brown

That’s it?

Kashmir Hill

That’s it. The tagline was, “It’s gonna be yuge!”

Annie Brown

O.K. [LAUGHS] So how do you move from a Donald Trump hair app to something that seems like it could revolutionize police work?

Kashmir Hill

Well, he moved to New York. And that seemed to be a big change for him. And he started meeting very different people. And one of the most important people he met was Richard Schwartz.

Hoan Ton-That

*I ended up meeting Richard at a party.*

Kashmir Hill

This 61-year-old guy who worked for Mayor Rudy Giuliani in the 1990s. He was just very politically connected.

Hoan Ton-That

*I really loved that. He had a lot of stories. And then we talked for an hour about different ideas. Because I was like, this is what I do — technology. I can make anything. And it went from there.*

Kashmir Hill

And the two of them decided, with Hoan Ton-That’s tech know-how and Richard’s Rolodex, that they want to try to start a facial recognition company together.

Annie Brown

And why facial recognition? Why did the two of them choose that?

Kashmir Hill

I think it was because Hoan had started reading a lot of papers about facial recognition and machine learning.

Hoan Ton-That

*I had never really studied AI stuff before, but I could pick up a lot of it.*

Kashmir Hill

And I think they realized they could make money doing it.

Kashmir Hill

*What would you say, in terms of the range of ideas at first, what were you thinking?*

Hoan Ton-That

*A lot. I could go on, really crazy, but —*

Kashmir Hill

There’s a lot of face recognition algorithms out there, and a lot that work pretty well. What was different about what Hoan Ton-That and Richard Schwartz were doing is they had been willing to scrape all of these photos from the internet. So they just had a huge database of photos.

Annie Brown

Right, the billions of photos.

Kashmir Hill

Exactly.

Hoan Ton-That

*And then we had this point where we got to 99 percent accuracy. I remember that, it was just in the office. And he was like, wow, it works. Try that one again. Try that one again. And just every time, it would pick the right person out. And that’s when we knew, this is crazy. This actually works.*

Annie Brown

Is that legal? Can you just take photographs from anywhere on the internet and use them for this kind of thing?

Kashmir Hill

There was a ruling in a federal court this fall that said, yeah, this kind of public scraping seems to be legal.

Annie Brown

And what are they hoping to do with this software at this point?

Kashmir Hill

I mean, they’re just trying to figure out how they can make money off of the app. And so they eventually end up settling on law enforcement.

Hoan Ton-That

*And they start solving cases from grainy A.T.M. photos, cases they would’ve never solved. So this spread to different departments, and then from one agency to other agencies.*

Annie Brown

And do you ask him about that thing that happened with the officer who couldn’t find your photos?

Kashmir Hill

Yeah, so that was one of my questions, and I wasn’t entirely satisfied by his answer.

Hoan Ton-That

*So —*

Kashmir Hill

*One thing that surprised me — some of the officers I talked to tried to run my photo through it, and they got no hits. And I tons of photos online.*

Hoan Ton-That

*[LAUGHS] It must have been a bug.*

Kashmir Hill

*Did you guys block me from like getting results?*

Hoan Ton-That

*I don’t know about that.*

Kashmir Hill

*Because I was like, this doesn’t make any sense.*

Kashmir Hill

He said, oh yeah, that was a software bug. But he laughed.

Kashmir Hill

*I was like, I have 1,000 photos online. This can’t work as well as they say it works.*

Hoan Ton-That

*Yeah, well, it must have been a bug in the software or something.*

Kashmir Hill

*[LAUGHS] Why did you do that? It totally made me think that —*

Hoan Ton-That

*Hey, maybe it doesn’t work. You never know, right? This could be the long con.*

Kashmir Hill

*Ah, O.K.*

Hoan Ton-That

*I’m kidding, I’m kidding. It works.*

Annie Brown

What do you think that was about?

Kashmir Hill

[LAUGHS] I don’t think it was a software bug.

Hoan Ton-That

*It’s a bug. I don’t know. I —*

Kashmir Hill

*You have no idea, huh?*

Annie Brown

Huh.

Kashmir Hill

Yeah. So he said the software bug is now fixed.

Hoan Ton-That

*Oh yes, so I’ll show you. This is the iPhone version.*

Kashmir Hill

And he took a photo of me.

Hoan Ton-That

*Oh, it does work.*

Kashmir Hill

*Oh, that’s so surprising.*

Hoan Ton-That

*I know.*

Kashmir Hill

And there, the results included a bunch of photos of me online.

Kashmir Hill

*Oh my god, I totally forgot.*

Hoan Ton-That

*Well, we can take —*

Kashmir Hill

*That’s 10 years ago.*

Kashmir Hill

Including some I had never seen before.

Kashmir Hill

*Some of these photos I didn’t know were online.*

Annie Brown

So he’s just brushing off this weird thing that happened to you. But do you get the sense that he’s thinking at all about privacy?

Kashmir Hill

So I asked him, you know, this is a very powerful app. And I asked him what restrictions is he thinking about for it. And he said, one, that they were only selling it to law enforcement right now, though it does turn out that they’re also selling it to a few private companies for security purposes. But he said they wouldn’t sell it to bad actors or bad governments.

Hoan Ton-That

*— and our philosophy is basically, if it’s a U.S. based — or like a democracy or an ally of the U.S. — we will consider it. But like, no China, no Russia or anything that wouldn’t be good. So if it’s a country where it’s just governed terribly or whatever, I don’t know if we’d feel comfortable selling to certain countries.*

Annie Brown

So it doesn’t sound like he has much of a rubric for deciding who to sell to. And it sounds like there’s no one really overseeing how he’s making these decisions.

Kashmir Hill

At this point, it’s just up to Clearview to decide who they want to sell the app to.

Hoan Ton-That

*No pressure, but when we talk to some venture capitalists, they’re like, “Why don’t you make this consumer? Law enforcement is such a small market. You won’t make that much money.” And we’ve considered it, and we’re just like, what’s the use case here? And right now, we catch, help catch pedophiles. What if a pedophile got access to this, goes around the street, runs —*

Kashmir Hill

But when I was talking to one of their investors, he says, we want to dominate the law enforcement market, and then we want to move into other markets like hospitality, like real estate. And he predicted that one day, all consumers will have access to this app.

Hoan Ton-That

*Um, and —*

Kashmir Hill

*I can tell you that one of your investors hopes that you guys are going to go into the consumer market.*

Hoan Ton-That

*Well, yeah. He talks too much. But like, we’re not — we’re not going to do that. I just don’t —*

Annie Brown

Hoan seems to be saying, yeah, there’s pressure on us to sell to private consumers, but we’re not going to do that. And how reasonable is it to think that he has control or the company has control at this point over where this technology goes?

Kashmir Hill

I mean, one point that I made when I was talking to him is that oftentimes, the tools that law enforcement use end up in the hands of the public.

Kashmir Hill

*I just — I personally feel like you guys have opened the door to now this becoming more normalized, just because a lot of tools that law enforcement have eventually make their way into public hands.*

Hoan Ton-That

*Not always. Not everyone has a gun. [LAUGHS] Right? That would be —*

Kashmir Hill

*Anyone who wants one can get one in the U.S. basically, but —*

Kashmir Hill

His response was strange. He said, well, look at guns. Law enforcement has guns, but not everybody has a gun. And I don’t know if that’s because he’s from Australia?

Annie Brown

Yeah, he’s proving your point, in a way.

Kashmir Hill

[LAUGHS] It did seem like he was proving my point, rather than rebutting it.

[Music]

We’ve been building the technology to make this possible for years now. Facebook building this huge database of our photos with our names attached to it, advances in image recognition and search technologies, it all led us here. But there’s been no accompanying regulation or rules around how the technology should be used. There’s no real law or regulation that makes this illegal. The scraping seems to be O.K. We don’t have a big ban on facial recognition. We don’t need to give consent for people to process our faces. And so in terms of holding this tool back, we’re just relying on the moral compasses of the companies that are making this technology and on the thoughtfulness of people like Hoan Tan-That.

Kashmir Hill

*But yeah, what do you think about that? Do you think that this is too dangerous a tool for everybody to have?*

Hoan Ton-That

*I have to think about that and really get back to you on an answer, because it’s a good question.*

Kashmir Hill

*Yeah.*

Hoan Ton-That

*I’ve thought about it a little bit.*

Kashmir Hill

*You haven’t thought about it? You have?*

Hoan Ton-That

*I have, I have. But I need to really come up with a good answer for that. Honestly like, yeah.*

[Music]

Annie Brown

Thanks, Kashmir.

Kashmir Hill

Thank you.

Michael Barbaro

Since Kashmir began reporting on Clearview AI, several major social media companies including Facebook, Twitter and Venmo have demanded that the company stop using photos scraped from their websites. But it’s unclear what, if any, power those social media companies have to force Clearview to comply. A few weeks ago, the state of New Jersey barred law enforcement from using Clearview’s technology, but police remain free to do so in 49 other states.

We’ll be right back.

Here’s what else you need to know today. President Trump has begun a campaign of retribution against witnesses in the impeachment inquiry, firing Gordon Sondland, his ambassador to the European Union, who called the president’s actions toward Ukraine a quid pro quo. And Lieutenant Colonel Alexander Vindman, a member of the National Security Council, who expressed alarm over the president’s phone call with the leader of Ukraine. The Times reports that several Republican senators urged Trump not to fire the witnesses, fearing it would send a dangerous message, but that the president ignored their advice. And the global death toll from the coronavirus has reached more than 800, surpassing that of the SARS epidemic, which killed 774 in 2003. The number of confirmed infections from the coronavirus now stands at more than 37,000. Finally, new polling in New Hampshire, which will hold its primary tomorrow, shows Mayor Pete Buttigieg neck-and-neck with Senator Bernie Sanders and former Vice President Joe Biden slipping into fourth place.

Archived Recording (George Stephanopoulos)

*Vice President Biden, the first question is for you. In the last few days, you’ve been saying that Democrats will be taking too big a risk if they nominate Senator Sanders or Mayor Buttigieg, but they came out on top in Iowa. What risks did the Iowa Democrats miss?*

Michael Barbaro

The poll, conducted by The Boston Globe, WBZ and Suffolk University suggest Buttigieg is benefiting from a strong performance in the Iowa caucuses and that Biden may perform poorly for the second time in a row, a prediction Biden confirmed during Friday night’s debate on ABC.

Archived Recording (Joe Biden)

*Oh, they didn’t miss anything. This is a long race. I took a hit in Iowa, and I’ll probably take it here.*

Michael Barbaro That’s it for “The Daily.” I’m Michael Barbaro. See you tomorrow.