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6

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Uber Uses Tech to Deceive Authorities Worldwide

By MIKE ISAAC

SAN FRANCISCO — Uber has for years engaged in a worldwide program to deceive the authorities in markets where its low-cost ride-hailing service was resisted by law enforcement or, in some instances, had been banned.

The program, involving a tool called Greyball, uses data collected from the Uber app and other techniques to identify and circumvent officials who were trying to clamp down on the ride-hailing service. Uber used these methods to evade the authorities in cities like Boston, Paris and Las Vegas, and in countries like Australia, China and South Korea.

Secret Data Tool Allows Ride-Hailing Firm to Skirt Enforcement

Greyball was part of a program called VTOS, short for “violation of terms of service,” which Uber created to root out people it thought were using or targeting its service improperly. The program, including Greyball, began as early as 2014 and remains in use, predominantly outside the United States. Greyball was approved by Uber’s legal team.

Greyball and the VTOS program were described to The New

York Times by four current and former Uber employees, who also provided documents. The four spoke on the condition of anonymity because the tools and their use are confidential and because of fear of retaliation by Uber.

Uber’s use of Greyball was recorded on video in late 2014, when Erich England, a code enforcement inspector in Portland, Ore., tried to hail an Uber car downtown in a sting operation against the company.

At the time, Uber had just started its ride-hailing service in Portland without seeking permission from the city, which later declared the service illegal. To build a case against the company, offi-

Continued on Page A13

How Uber Uses Tool to Deceive the Authorities Worldwide

From Page A1

cers like Mr. England posed as riders, opening the Uber app to hail a car and watching as miniature vehicles on the screen made their way toward the potential fares.

But unknown to Mr. England and other authorities, some of the digital cars they saw in the app did not represent actual vehicles. And the Uber drivers they were able to hail also quickly canceled. That was because Uber had tagged Mr. England and his colleagues — essentially Greyballing them as city officials — based on data collected from the app and in other ways. The company then served up a fake version of the app, populated with ghost cars, to evade capture.

At a time when Uber is already under scrutiny for its boundary-pushing workplace culture, its use of the Greyball tool underscores the lengths to which the company will go to dominate its market. Uber has long flouted laws and regulations to gain an edge against entrenched transportation providers, a modus operandi that has helped propel it into more than 70 countries and to a valuation close to \$70 billion.

Yet using its app to identify and sidestep the authorities where regulators said Uber was breaking the law goes further toward skirting ethical lines — and, potentially, legal ones. Some at Uber who knew of the VTOS program and how the Greyball tool was being used were troubled by it.

In a statement, Uber said, “This program denies ride requests to users who are violating our terms of service — whether that’s people aiming to physically harm drivers, competitors looking to disrupt our operations, or opponents who collude with officials on secret ‘stings’ meant to entrap drivers.”

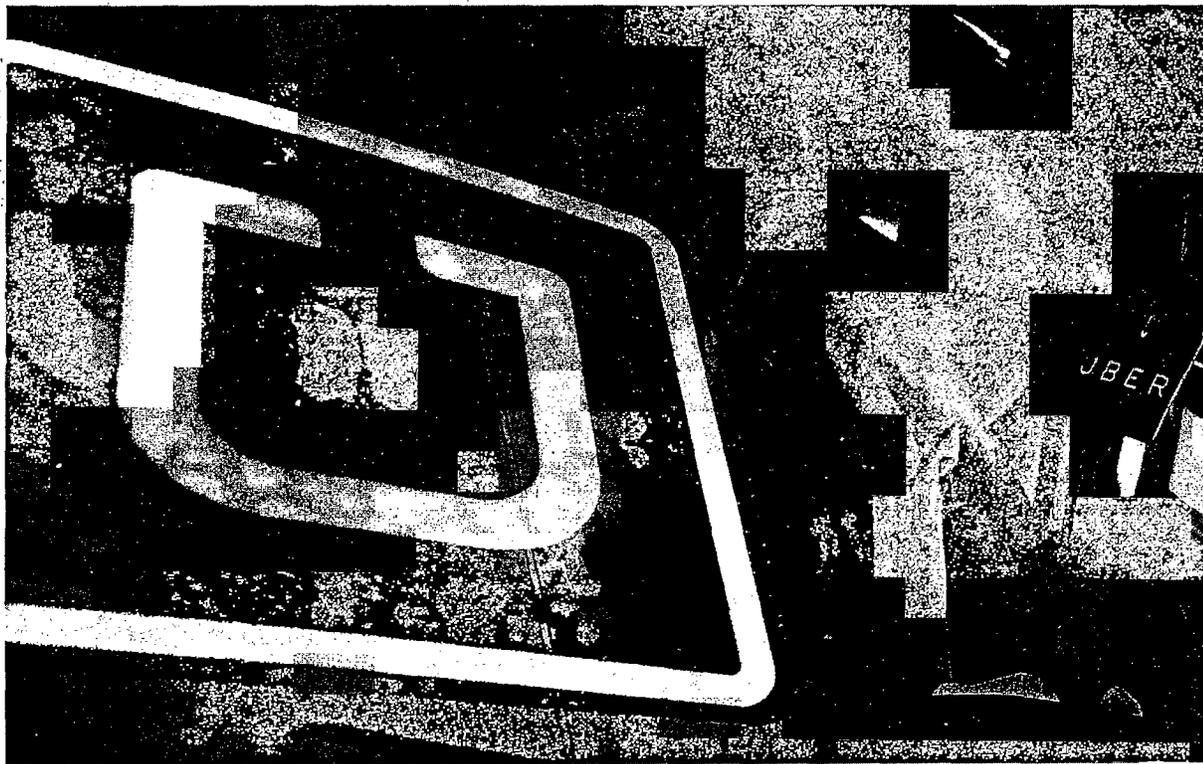
Dylan Rivera, a spokesman for the Portland Bureau of Transportation, said in a statement, “We’re very concerned to hear that this practice continued at least into 2015 and affected other cities.”

“We take any effort to undermine our efforts to protect the public very seriously,” he said.

Uber, which lets people hail rides using a smartphone app, operates multiple types of services, including a luxury Black Car offering in which drivers are commercially licensed. But an Uber service that many regulators have had problems with is the lowest-cost version, known in the United States as UberX.

UberX essentially lets people who have passed a background check and vehicle inspection become Uber drivers quickly. In the past, many cities have banned the service and declared it illegal.

That is because the ability to summon a noncommercial driver — which is how UberX drivers using private vehicles are typically categorized — was often unregulated. In barreling into new markets, Uber capitalized on this lack



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Uber uses data from its app and other means to identify and circumvent officials who were trying to clamp down on the company.

of regulation to quickly enlist UberX drivers and put them to work before local regulators could stop them.

After the authorities caught on to what was happening, Uber and local officials often clashed. Uber has encountered legal problems over UberX in cities including Austin, Tex., Philadelphia and Tampa, Fla., as well as internationally. Eventually, agreements were reached under which regulators developed a legal framework for the low-cost service.

That approach has been costly. Law enforcement officials in some cities have impounded vehicles or issued tickets to UberX drivers, with Uber generally picking up those costs on the drivers' behalf. The company has estimated thousands of dollars in lost revenue for every vehicle impounded and ticket received.

This is where the VTOS program and the use of the Greyball tool came in. When Uber moved into a new city, it appointed a general manager to lead the charge. This person, using various technologies and techniques, would try to spot enforcement officers.

One technique involved drawing a digital perimeter, or “geofence,” around the government offices on a digital map of a city that Uber was monitoring. The company watched which people were frequently opening and closing the app — a process known internally as eyeballing — near such locations as evidence that the users might be associated with city agencies.

Other techniques included look-

ing at a user's credit card information and determining whether the card was tied directly to an institution like a police credit union.

Enforcement officials involved in large-scale sting operations meant to catch Uber drivers would sometimes buy dozens of cellphones to create different accounts. To circumvent that tactic, Uber employees would go to local electronics stores to look up device numbers of the cheapest mobile phones for sale, which were often the ones bought by city officials working with budgets that were not large.

In all, there were at least a dozen or so signifiers in the VTOS program that Uber employees could use to assess whether users were regular new riders or probably city officials.

If such clues did not confirm a user's identity, Uber employees would search social media profiles and other information available online. If users were identified as being linked to law enforcement, Uber Greyballed them by tagging them with a small piece of code that read “Greyball” followed by a string of numbers.

When someone tagged this way called a car, Uber could scramble a set of ghost cars in a fake version of the app for that person to see, or show that no cars were available. Occasionally, if a driver accidentally picked up someone tagged as an officer, Uber called the driver with instructions to end the ride.

Uber employees said the practices and tools were born in part out of safety measures meant to protect drivers in some countries.

In France, India and Kenya, for instance, taxi companies and workers targeted and attacked new Uber drivers.

“They’re beating the cars with metal bats,” the singer Courtney Love posted on Twitter from an Uber car in Paris at a time of clashes between the company and taxi drivers in 2015. Ms. Love said that protesters had ambushed her Uber ride and had held her driver hostage. “This is France? I’m safer in Baghdad.”

Uber has said it was also at risk from tactics used by taxi and limousine companies in some markets. In Tampa, for instance, Uber cited collusion between the local transportation authority and taxi companies in fighting ride-hailing services.

In those areas, Greyballing started as a way to scramble the locations of UberX drivers to prevent competitors from finding them. Uber said that was still the tool's primary use.

But as Uber moved into new markets, its engineers saw that the same methods could be used to evade law enforcement. Once the Greyball tool was put in place and tested, Uber engineers created a playbook with a list of tactics and distributed it to general managers in more than a dozen countries on five continents.

At least 50 people inside Uber knew about Greyball, and some had qualms about whether it was ethical or legal. Greyball was approved by Uber's legal team, led by Salle Yoo, the company's general counsel. Ryan Graves, an early hire who became senior vice

president of global operations and a board member, was also aware of the program.

Ms. Yoo and Mr. Graves did not respond to requests for comment.

Outside legal specialists said they were uncertain about the legality of the program. Greyball could be considered a violation of the federal Computer Fraud and Abuse Act, or possibly intentional obstruction of justice, depending on local laws and jurisdictions, said Peter Henning, a law professor at Wayne State University who also writes for The New York Times.

“With any type of systematic thwarting of the law, you’re flirting with disaster,” Professor Henning said. “We all take our foot off the gas when we see the police car at the intersection up ahead, and there’s nothing wrong with that. But this goes far beyond avoiding a speed trap.”

On Friday, Marietje Schaake, a member of the European Parliament for the Dutch Democratic Party in the Netherlands, wrote that she had written to the European Commission asking, among other things, if it planned to investigate the legality of Greyball.

To date, Greyballing has been effective. In Portland on that day in late 2014, Mr. England, the enforcement officer, did not catch an Uber, according to local reports.

And two weeks after Uber began dispatching drivers in Portland, the company reached an agreement with local officials that said that after a three-month suspension, UberX would eventually be legally available in the city.