



YOUNGME MOON

Uber: Changing the Way the World Moves

Uber is evolving the way the world moves. By seamlessly connecting riders to drivers through our apps, we make cities more accessible, opening up more possibilities for riders and more business for drivers. From our founding in 2009 to our launches in hundreds of cities today, Uber's rapidly expanding global presence continues to bring people and their cities closer.

– From the Uber website, November 2015

In late 2015, Uber was among the most high-profile new companies of its generation. Founded just six years ago, the company connected passengers to drivers at an unprecedented scale, using point-to-point software enabled by smartphone technology.

Customers raved about Uber's reliability and convenience. The breathtaking efficiency of its value proposition had fueled astonishing growth: It was now said to be booking 2 million¹ rides a day, and although it did not report revenues as a private company, analysts estimated Uber's net commission from drivers would come in between \$1.5 billion and \$2 billion² in 2015.

But if there was an adage about disruptive technology companies—"move fast and break things"—few companies embodied this adage better than Uber. Not only did the company endure frequent customer criticisms about its surge pricing policy, Uber was constantly battling government regulators, taxi companies, and critics who charged that they were playing fast and loose with the legal system. Barry Korengold, President of the San Francisco Cab Drivers Association, described Uber this way: "I think of them as robber barons. They started off by operating illegally, without following any of the regulations and unfairly competing. And that's how they became big—they had enough money to ignore all the rules."³

Still, by late 2015, there was no denying the global phenomenon that Uber had become. Like Google, its brand name was already in regular use as a verb. It had more than a million active drivers and operated in more than sixty countries and 330 cities around the world. It was valued by investors at \$51 billion, which made the young startup more valuable than two-thirds of the companies on the Fortune 500. At the same time, the company was also being credited (along with a handful of other startups) with ushering in what was being called the on-demand economy, in which people used

¹ Chafkin, Max. *What Makes Uber Run*, Fast Company, Oct 2015.

² Kosoff, Maya. *New Revenue Figures Show \$50 billion Uber is Losing a Lot of Money*. Business Insider, Aug 5, 2015.

³ Swisher, Kara. *Man and Uber Man*. Vanity Fair, Dec 2014.

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their smartphones to connect to a distributed workforce that delivered everything from hot meals, housekeeping services, to groceries, at a moment's notice.

The Origins of Uber

The idea for Uber originated in 2008 when Travis Kalanick and Garrett Camp, both serial entrepreneurs who had successfully sold their most recent startups, were in Paris, casting about for their next business idea. Inspired by their difficulties in finding a taxi in the snow, the two began plotting a smartphone app that would solve the problem of summoning a car service. Once back in San Francisco, Camp bought the domain name UberCab.com and convinced Kalanick to run the company. UberCab officially launched in 2010 as a private luxury car service catering to San Francisco and Silicon Valley executives.

In the company's early days, customers wishing to use the service had to email Kalanick for a code to gain access to the app. After entering their credit card information on the app, customers could then summon a private black car with the press of a button. The app allowed passengers to track the car's approach; once the chauffeur picked up the rider, the built-in GPS guided the chauffeur to the rider's destination. The cost of the ride was automatically charged to the customer's preloaded credit card at the end of the ride, with no tipping required. Uber kept 20% of the gross fare as commission; the chauffeur kept the rest.

For executives accustomed to having to book an expensive private car service well in advance of needing a ride, or alternatively, to walk onto the street and hail a cab, the convenience, spontaneity, and efficiency afforded by UberCab was a revelation. Not long after launch, the prominent angel investor Chris Sacco tweeted: "Rolling in an @ubercab. Eat your heart out Robin Leach."⁴ The tweet's sentiment captured the instant affinity first-time users typically felt for the service.

In October 2010, just months after launch, the company received cease-and-desist orders from both the California Public Utilities Commission and the San Francisco Municipal Transportation Agency, demanding that the company immediately cease "all advertisements and operations" for operating without a taxi license—or else face fines of \$1,000 and 90 days in jail for every day it stayed in business. (See **Exhibit 1**.) But because Kalanick believed that Uber was not in the taxi business—it simply provided the software platform to connect town car chauffeurs and drivers—he just changed the company name to Uber and otherwise ignored the order.

Over the next few months, the company's momentum grew. As the company began attracting a steady stream of customers and drivers, investors began flocking in as well. In February 2011, Uber raised \$11 million in a financing round led by Benchmark that valued the company at \$60 million. Additional investments over the next few years came in from high-profile firms like Menlo Ventures, Google Ventures, Fidelity and BlackRock. By May 2013, Uber was valued at \$330 million. Later that same year, it was valued at more than \$3 billion. By the summer of 2014, it was valued at more than \$18 billion. By late 2015, it had raised a cumulative total of \$8 billion and was valued at \$51 billion.⁵

As for the business itself, because Uber was a private company, its financial performance was a bit of a guessing game. In 2013, Uber's gross annual revenue was leaked to be roughly \$500 million, with

⁴ Swisher, Vanity Fair.

⁵ Source: Crunchbase.

net revenue of more than \$100 million.⁶ In 2014, net revenue was said to have grown to more than \$400 million⁷ and a year later, the company was believed to have more than doubled that. As for profitability, Uber was widely assumed to be taking a loss. But it was also believed that Uber was profitable in dozens of its more mature cities and was simply managing its overall income statement to prioritize for expansion and growth over profitability. Uber as much as confirmed this in a sarcastic response to media outlets: “Shock, horror, Uber makes a loss. It’s the case of Business 101: You raise money, you invest money, you grow (hopefully), you make a profit and that generates a return for investors.”⁸

How Uber Worked

Uber should feel magical to the customer. They just push the button and the car comes. But there’s a lot going on under the hood to make it happen.

– CEO Travis Kalanick⁹

Uber was a remarkably easy service for customers to use. To access Uber, customers simply had to download the app, create an account, and input their credit card information. When they were ready to summon a car, they simply opened the app and pressed a button. The app displayed available drivers in the nearby location, and usually responded within seconds that a driver was on its way.

As the driver headed to pick up a customer, the customer could track the driver’s progress on a map. The app allowed customers to view the name of the driver and the driver’s quality rating, which ranged from 1 to 5 stars. Customers could reject a driver with a low rating; they could also contact the driver via phone or text if necessary (with the driver’s actual phone number cloaked). The car would generally arrive within minutes. Once the driver picked up the passenger, the driver could navigate to the destination using Uber’s built-in GPS system.

At the end of the ride, no cash would exchange hands; instead, the fare was automatically deducted from the customer’s account. An email receipt was sent to the customer when the trip was completed, at which point the customer was encouraged to rate the driver. (See **Exhibit 2** for screenshots of the app.)

Uber’s prices were determined by the time and distance of the trip as measured by GPS. Uber’s black town car service (UberBlack) was typically priced lower than the cost of a private limousine service, but 40% to 100% higher than a comparable cab ride.¹⁰ During times of peak ridership – which could include rush hour, bad weather, or special occasions – Uber would put something called “Surge Pricing” into effect, which would raise the price anywhere from 1.5x to 7x of normal. Although the precise algorithm behind these surges remained a mystery, Uber claimed they went into effect automatically whenever demand in a given area exceeded supply.

When surge pricing was in effect, customers were notified immediately upon opening the app. Before they could summon a ride, they had to acknowledge the surge pricing, and type the precise

⁶ Kosoff.

⁷ Eric Newcomer and Jing Cao, “Uber Bonds Term Sheet Reveals \$470 Million in Operating Losses,” BloombergBusiness report, June 29, 2015. (bloom.bg/1M9YtAj)

⁸ DeAmicis, Carmel. *Yes, Uber Lost a Lot of Money. (And It Will Lose More.)* Re/code, Aug 5, 2015. (on.recode.net/1kqAouv)

⁹ Wohlsen, Marcus. *What Will Uber Do With All That Money From Google.* Wired. Jan 3, 2014.

¹⁰ *We Did The Math: Uber vs. Taxi.* Business Insider report. Oct 6, 2014. (read.bi/1Mb1H38)

amount of the surge increase into the app to ensure they knew they were being charged a higher price. (See **Exhibit 3** for screenshots of surge pricing in effect.) The company's commission remained a flat 20% regardless of the price charge. As Kalanick put it, "What you are aiming for is the equilibrium of supply and demand. A perfect day is when you set an all-time record for trips per hour with zero surges."¹¹

On the driver's side, Uber's system worked in reverse. When a customer summoned a car, nearby drivers had the option to respond, and had the right to refuse to pick up passengers whose ratings were low. They also had the option to contact the customer by phone or text if necessary (with the customer's actual phone number cloaked). The driver app had additional features as well. It had "heat maps" that gave drivers visibility into the areas where they were most likely to find passengers. It had an earnings icon that displayed a breakdown of the money they were making, separating out take-home pay. It had a feedback icon that displayed how passengers were rating them, including any comments passengers may have left. (See **Exhibit 4** for screenshots of Uber's driver app.)

Meanwhile, at Uber's San Francisco headquarters, a software tool called God View offered Uber managers a real-time display of all of the city's Uber vehicles—represented as tiny cars on a map—on the move, while tiny eyeballs on the same map displayed the location of potential customers looking at the Uber app on their smartphones. Uber used sophisticated data analysis to determine the best locations for drivers to wait for pickups. This was a massive effort on Uber's part; the company employed a large data science team of PhDs from fields ranging from nuclear physics to computational biology to hone the algorithms that kept Uber humming at maximum efficiency.

Uber's Driver Model

Uber drivers were independent contractors rather than regular permanent employees of Uber. As contract workers, they did not receive health benefits, retirement, disability, vacation leave, unemployment or injured workers compensation; they were simply paid for the business they generated driving passengers.¹² Uber took a flat percentage commission fee on all fares and in 2015 this fee had been raised: Uber's cut now ranged from 20% to 30% of the gross fare, depending on the city and the circumstances. Drivers kept the remainder.

Uber did not own its cars; instead, it served as a referral or dispatch system for drivers who drove their own cars. For the company's UberBlack town car service, the company relied on a network of established, licensed limousine drivers who applied to be part of its system. A growing number of U.S. limousine companies (estimates ranged from 20%-40%) allowed their drivers to participate in Uber.¹³ To become an UberBlack driver, drivers had to be professional chauffeurs with a commercial license and commercial auto insurance. Their vehicles had to fit Uber's criteria for black car service. They also had to have clean driving records and undergo background checks at both the state and federal level.

¹¹ Malik, Om. *Uber is the New Google*. Fast Company, June 2014.

¹² Uber was facing lawsuits for treating its drivers as independent contractors. It was not alone in this regard; many other prominent "sharing economy" companies were facing similar lawsuits over the same issue. Uber's response to these lawsuits was to argue that the classification was appropriate, because the company was simply connecting contractors with customers through its technology platform. In fact, many cab drivers were also independent contractors for the taxi industry. Uber additionally noted that its drivers often preferred the flexibility that came with the classification, because it meant they could work for multiple employers and set their own schedules.

¹³ Limousine, Charter & Tour Factbook, May 2014.

In 2013, Uber introduced uberX, a cheaper version of Uber that allowed non-professional drivers to apply to use the platform using their personal vehicles. Riding uberX generally tended to save passengers 10% off the cost of a taxi. The criteria for being an uberX driver were less stringent than that for UberBlack: Drivers had to be at least 21 years old, with a personal license and personal auto insurance that covered using the vehicle for commercial purposes. They had to possess clean driving records, pass background checks, and drive a midsize or full-size 4-door vehicle in good condition. Drivers were also expected to have an iPhone, although if they didn't have one, Uber would rent them one for \$10 per week.

By 2015, Uber offered additional service options as well: uberXL for passengers who wanted the low cost of uberX service but needed a larger vehicle to fit up to six passengers; UberSUV for passengers who wanted UberBlack service but required an SUV. (See **Exhibit 5** for a comparison of a subset of the different Uber services. See **Exhibit 6** for expenses incurred by typical uberX drivers.)

When Uber prepared to launch in a new city, it would send two advance teams into the area six weeks in advance: One team was charged with building market awareness about Uber's impending entry into the market; the other was charged with recruiting drivers for the service.¹⁴ This second team would aggressively pitch potential drivers on the advantages of driving for Uber: Drivers could set their own hours; they could earn a good income; they were guaranteed automatic payment upon completion of each fare; and they could participate in a system in which misbehaving passengers could be suspended from the system. In addition, Uber often granted these drivers bonus incentives to drive for Uber, particularly in their first year of driving. As for potential drivers who did not own a car, Uber offered favorable loan terms to help them purchase the vehicles necessary to drive for the company.

(See **Exhibits 7** and **8** for additional information on the number and earnings of UberBlack versus uberX drivers.)

The Competition

Uber competed directly against the taxi industry, which operated differently across countries. In the United States, most taxicabs required a license (or "medallion") to operate. Some cities controlled the number of available taxis through their medallion systems. For example, the number of cabs in New York had remained constant for decades despite significant increases in the population. San Francisco was another city that capped the number of taxi medallions even as the population had increased. By contrast, cities like Washington DC allowed anyone to operate a cab as long as they obtained a license and operated according to regulations.

The distinction between taxicabs and livery vehicles ("for hire" vehicles such as limousines and black town cars) was significant. Only taxicabs could be hailed on the streets, and only taxicabs could be dispatched immediately after a telephone call to a dispatcher. In some cases, a prearranged taxi pickup could be requested in advance, but such pickup arrangements were generally perceived to be unreliable by customers.

Taxis were generally required to have a distinctive appearance and to make it clear whether or not they were "in service." The price of a cab fare was based on the time and distance of the trip and was regulated by an official taximeter, although exceptions to this existed—the price of trips to/from established destinations (e.g., airports) was often fixed, for example.

¹⁴ Lagorio-Chafkin, Christine. *Resistance is Futile*. Inc. Magazine, July/August 2013.

Complaints about taxicabs were widespread. Riders often found the cars to be in poor repair (seatbelts not working, seats ripped), unclean and generally unpleasant. Some cabs accepted credit cards, but others did not. Cab drivers were known to talk on the phone or even text while driving, and often needed to be given directions to the destination (as not all of them were equipped with GPS). Some cabs blared music and/or advertisements during the ride. Catching a cab generally required standing outside and trying to hail one that drove by. This tended to be a hit-or-miss proposition: In some parts of the city, cabs were easily hailed; in other areas, cabs were nowhere to be found. It was generally accepted that cabs tended to avoid certain areas of certain cities. It was also accepted that they were hard to catch at night.

Becoming a taxi driver was a complicated process due to regulatory constraints. Because the number of medallions was capped in some cities, their prices had soared in recent years. In New York, for example, the price of a medallion had skyrocketed, reaching a height in 2013 when an auction of 200 medallions netted the city a total of \$200 million. There were other hurdles as well. In London, potential drivers had to pass a “knowledge test” of the city’s streets to attain a license. Although GPS had probably made the test obsolete, the requirement persisted and it would sometimes take up to four years for an individual to pass the test successfully.

Some drivers owned their own medallions, but because of their high price, many were purchased by companies that operated fleets of taxis. Owners would buy them for their investment value, and then lease their vehicles to other drivers. New York medallion owners were known to charge drivers on a daily or weekly basis to lease a licensed vehicle, and were often able to lease the car for two shifts a day, doubling profitability. In cities such as New York, it could cost cab drivers—who often worked as independent contractors—as much as \$75,000 a year to rent a medallion.

Once lease payments were deducted, a typical driver made somewhere around \$130 per shift. The median annual income for a full-time taxi driver tended to range from \$27,000 to \$41,000 with a rough median of about \$33,000, although this figure varied depending on location and company.¹⁵ As David S. Yasskey, NYC Taxi Commissioner, put it: “Like a lot of the economy, the taxi industry has become a winner-take-all industry where the profits at the top are very large and the wages at the bottom are grindingly low.”¹⁶ (Exhibits 9 through 11 provide additional information on the characteristics and earnings of Uber drivers versus taxi drivers and chauffeurs.)

Given this context, it was perhaps not surprising that some taxi drivers were defecting to Uber. A 2014 *BusinessWeek* article described one San Francisco taxi driver who, weary of paying \$400 a week to lease his cab, had recently made the switch. After an hour of orientation, Uber had handed him an iPhone with its driver app and had sent him out on the road. “No one under the age of 40 with a smartphone is going out and getting a cab anymore,” the driver was quoted as saying. “I say if you can’t beat ‘em, join ‘em.”¹⁷ The article also described how the driver was now receiving a stream of offers from Uber, offering discounts on new cars and other perks.

Uber also faced competition from livery services that provided limousines and black town cars. In the United States, livery services tended to be regulated by state agencies. In most cities, these vehicles could not be hailed on the street, nor could they respond immediately to pick-up requests; rather, they had to be prearranged at least an hour in advance. Cars were generally unavailable on

¹⁵ Salary.com report: www1.salary.com/Taxi-Driver-Salary.html.

¹⁶ Flegenheimer, Matt. “\$1 Million Medallions Stifling the Dreams of Cabdrivers,” *New York Times*, Nov. 14, 2013.

¹⁷ Stone, Brad. *Invasion of the Taxi Snatchers: Uber Leads an Industry’s Disruption*. BloombergBusiness, Feb 20, 2014.

short notice. These services tended to charge based on time, with a preset minimum. They also tended to be expensive.

The typical limo driver earned between \$11 and \$12 an hour, plus tips. In some cases, these drivers owned their own vehicles and worked as independent contractors for the limousine company; in other cases, the limo company would provide vehicles to a staff of employed chauffeurs.

Finally, Uber faced newer competition from other ride-sharing services such as Lyft and Sidecar. These companies allowed any non-professional driver with a vehicle to pick up passengers using their apps. Some of these companies had garnered positive momentum, but none had achieved the popularity and growth of Uber.

A Battle of Words, Regulation, and Public Relations

Although there was no disputing Uber's market momentum, controversy swirled around the company on a regular basis.

Uber versus the Taxi Industry

Within months after Uber's launch, regulators, politicians, and the taxi industry had begun fighting back against Uber, and by 2015, the battle was in full force. The response took on many forms: In some countries such as the Netherlands and South Korea, Uber was banned or treated as an illegal taxi service. In other countries where Uber operated, taxi drivers would sometimes go on strike to protest their government's failure to regulate ride-sharing businesses. These strikes occasionally erupted into violence, inflaming public opinion and headlining global news coverage.

One long-time taxi driver who managed a seven-car fleet in Houston fumed: "For 30 years I've done physicals, drug tests, keeping myself in order so I can keep my license. And now this company's just going to come in here, charge 20 percent, and let [their drivers] go?" He recently told his older son, who occasionally drove for uberX: "When you're out there for a few hours, you're stealing food from the mouth of a guy who's out there eight or nine hours – who's a professional."¹⁸

In reality, the legality of Uber's business was unclear. Although laws existed to regulate the taxi and limousine industries, Uber's service had unique characteristics that made comparison difficult. The fact was, the technology that was core to Uber's network represented an unprecedented disruption that city and country regulators were ill equipped to deal with. Most laws had been written before the existence of software that could coordinate real-time ride-sharing on a massive scale. Most regulations had been written before regulators could conceive of a time when passengers could summon rides from devices kept in their pockets.

Still, some of the charges leveled at the company from its critics appeared to have some weight. For example, one of the criticisms was that Uber was putting non-professional drivers on the road. This was at least partially true: While UberBlack drivers were commercially licensed professional drivers, uberX drivers were not. What wasn't clear was whether, as critics claimed, the company was actually risking lives by putting these uberX drivers on the road. Uber claimed that its background checks for drivers were more thorough than that of the taxi industry, but given the variability in how different taxi companies vetted their drivers, this was impossible to verify. (See **Exhibit 12** for driver requirements for different industries.)

¹⁸ Kim, E. Tammy. *The Taxi Wars: Uber is 'Destroying the Taxi Industry.'* Al Jazeera, Sept 16, 2015. (bit.ly/1iBHZoS)

Critics also claimed that Uber's prices were unfairly designed to kill off competition. Kalanick, not known for being diplomatic, responded by calling the taxi industry a "protectionist scheme" that "prefers not to compete at all and likes things the way they are."¹⁹ In a blog post, he expanded on this by writing, "Our opponent—the Big Taxi cartel—has used decades of political contributions and influence to restrict competition, reduce choice for consumers, and put a stranglehold on economic opportunity for drivers."²⁰

On its side, Uber had defenders among the many former taxi drivers who were now driving for the company. Bloomberg BusinessWeek spoke to one former cab driver who had little sympathy for the yellow cab operators complaining about Uber: "He bitterly recalls having to wait for hours in the garages of a local car company before Uber entered the scene, as dispatchers decided whether they had a spare car to give him. 'It's their fault,' he says. 'They made it so hard.'"²¹

In addition, Uber had legions of defenders among its customer base. One reporter described his personal experience switching from taxis to Uber this way:

I've lived in New York City's outer boroughs for a decade, first in Brooklyn and now in Queens, and I can tell you that Uber has made life dramatically easier on those who can't afford a Manhattan apartment or to live especially close to a subway stop. Back in the old days, if you wanted to take a taxi home . . . the city's iconic yellow cabs generally flat-out refused to take you to a borough. If you managed to get in the cab, they might simply drive around in circles, with the meter running, until you got out, miles away from your destination. And they also routinely racially profiled passengers and refused to take anyone to neighborhoods like Harlem that are predominantly African American.²²

Yet another journalist, writing for Business Insider, headlined his piece: "Uber has changed my life and as God is my witness I will never take a taxi again."²³

Uber's Surge Pricing Model

In addition to waging battles with regulators and the taxi industry, Uber also had to contend with persistent complaints about its surge pricing model.

Dynamic pricing was not a novel concept; it was used on a regular basis by a wide array of companies, including hotels, airlines, movie theatres, and nightclubs. But Uber's surge pricing had invited a particularly high degree of negative attention as a result of several specific incidents. On New Year's Eve in 2011, Uber prices had surged to 7x normal rates, stunning and infuriating revelers. Then in 2013, when winter snow storms had battered the East Coast, surge pricing had again raised the ire of customers when Jessica Seinfeld, the wife of comedian Jerry Seinfeld, posted to Instagram a screen shot of her \$415 Uber bill with a caption that read in part "#OMG #neverforget #neveragain #real." Others had piled on, sharing similar experiences and accusing Uber of exploiting customers.

¹⁹ Stone.

²⁰ Swisher, Kara. *Uber Hires Top Obama Advisor David Plouffe as New 'Campaign Manager.'* Re/code, Aug 19, 2014. (on.recode.net/1iFFlhE)

²¹ Stone.

²² Chafkin, Max. *Admit It, You Love Uber.* Fast Company, Oct 2015.

²³ Edwards, Jim. *Uber Has Changed My Life And As God Is My Witness I Will Never Take a Taxi Again.* Business Insider, Jan 22, 2014. (read.bi/1H57FWI)

As a result of the controversy, Uber vowed not to exceed 2.8x its normal rates during any future state of emergency. But the anger had mounted once again when, during the 2014 Sydney hostage crisis, Uber's algorithms automatically put surge pricing into effect in the surrounding neighborhoods, resulting in fares 4x normal. The company later apologized and refunded the surcharges.

Still, Uber refused to back down from its overall policy of surge pricing when demand peaked. The company's argument was simple: Surge pricing was necessary to lure drivers on the road to meet demand during busy times. As Kalanick put it, "people would love to have 100% reliability at a fixed price all the time. I get it. That is not possible."²⁴ Elsewhere he added, "Because this is so new, it's going to take some time for folks to accept it. There's 70 years of conditioning around the fixed price of taxis."²⁵

Uber's Aggressive Market Tactics

Aside from the specific complaints leveled by critics against Uber, there was also a more generalized perception that Uber engaged in overly aggressive market tactics. When Uber entered a new market, it typically just ignored local regulations and began operating its service without waiting for permission. It also had a reputation for cutthroat competitive tactics. In one case, Uber was caught trying to slow down the service of one of its ride-sharing competitors by ordering and cancelling cars en masse (Uber later apologized for the tactic).²⁶ The company was also known for attempting to poach drivers from other ride-sharing services by deploying its sales representatives to order rides and then try to convince the drivers to defect to Uber with offers of monetary bonuses and other incentives.

Kalanick himself had come under personal criticism for being overly combative in his words and approach. He seemed to acknowledge the criticism at a celebration for the company's fifth birthday when he said, "I realize I can come across as a somewhat fierce advocate for Uber. I also realize some people have used a different a-word to describe me."²⁷ Indeed, by late 2015, there were concerns that the company's was simply moving *too* aggressively – with its fast-moving forays into new markets, with its disdain for regulatory concerns, with its disregard for consumer complaints about pricing – and as a result, was attracting more than its share of backlash from regulators, industry incumbents, and a public wary of its aggression.

In 2014, Uber hired David Plouffe to head the company's public policy and communications function. Plouffe was the high-powered political strategist best known for being the campaign genius behind Obama's 2008 presidential campaign. When asked whether he was hired to repair Uber's image problem, Plouffe replied, "I don't subscribe to the idea that the company has an image problem. I actually think when you are a disrupter you are going to have a lot of people throwing arrows."²⁸

Kalanick added, "What we maybe should've realized sooner was that we are running a political campaign and the candidate is Uber. And this political race is happening in every major city in the

²⁴ Stone.

²⁵ Bilton, Nick. *Taxi Supply and Demand, Priced by the Mile*. New York Times, Jan 8, 2012.

²⁶ Stone.

²⁷ *Uber: Driving Hard*. The Economist, June 13, 2015.

²⁸ Swisher, Vanity Fair.

world. And because this isn't about a democracy, this is about a product, you can't win 51 to 49. You have to win 98 to 2.²⁹

Looking Ahead

As Uber prepared to close out 2015, it had a number of reasons to be optimistic about its future. For one thing, it had just won a high-profile transportation skirmish in New York City: Over the summer, Mayor de Blasio had threatened to place a cap on the number of vehicles Uber could operate in the city. In response, Uber had spent heavily on advertisements blasting the Mayor for being in the pocket of the cab industry. It had also introduced a feature in its app called "de Blasio view," that showed NYC riders the lengthy wait times they would have to endure if de Blasio's legislation passed. A number of celebrities had weighed in to support Uber on social media (Ashton Kutcher, Kate Upton, Neil Patrick Harris, and others), and New York Governor Cuomo had even chimed in, calling Uber "one of the great inventions of this new economy."³⁰ Mayor de Blasio had finally caved, agreeing to delay any cap pending further study of the issue.

Other signs of Uber's momentum were more subtle and yet intriguing nonetheless. Some real estate experts, for example, were reporting that because Uber was making transportation more reliable and affordable in some cities, they were seeing a real estate resurgence in these dense locations. A few public health studies were reporting a reduction in drunk driving as a result of Uber.³¹ Perhaps most interestingly, the price of a NYC taxi medallion had dropped precipitously (down 40%) in the past year, a sure indication that the market for taxi licenses had become bearish as a result of Uber's presence.³²

At the same time, the company continued to clash with regulators and courts in multiple countries around the world, including Germany, Spain, Colombia, France, Australia, Italy, Denmark, China, and England. And anti-Uber protests, sometimes violent, continued to flare up in cities from Paris to Madrid.

This didn't seem to be deterring the company, however, as it continued to hew to its philosophy of brazenly entering and operating in these markets whenever possible, despite the legal ambiguities. Uber was putting a particular amount of energy into conquering two of the world's largest markets, China and India. And it was actively experimenting with new services, including the following:

- Uber had recently launched a concept called UberPOOL in select cities. UberPOOL was a service that paired riders on the same route and charged them a reduced price. In San Francisco the UberPOOL offering accounted for as much as 50% of all trips on some days. Kalanick noted: "We want to get to the point that using Uber is cheaper than owning a car. Transportation that's as reliable as running water."³³ Kalanick was hinting the company might one day expand UberPOOL to include buses, which he referred to as the "ultimate carpool machine."³⁴

²⁹ Ibid.

³⁰ Flegenheimer, Matt. *De Blasio Administration Dropping Plan for Uber Cap, For Now*. New York Times, July 22, 2015.

³¹ Chafkin.

³² *New York City's Yellow Cab Crisis*. CNN, July 21, 2015. (cnnmon.ie/1l6OIcg)

³³ Swisher, Vanity Fair.

³⁴ Chafkin.

- Uber had recently started a driverless-car initiative, and had jumpstarted the initiative by poaching dozens of members of Carnegie Mellon's robotics department, doubling their salaries and offering them six-figure bonuses.³⁵
- In some cities, Uber was experimenting with a lunch-delivery service called UberEATS; in other cities, it was exploring a food delivery service called UberFRESH. In Manhattan, it was experimenting with a bicycle courier service called UberRUSH.

Kalanick explained the company's approach this way: "We like to think of Uber as the cross between lifestyle and logistics, where lifestyle is what you want and logistics is how you get it there." He added: "If we can get you a car in five minutes, we can get you *anything* in five minutes."³⁶

³⁵ Ibid.

³⁶ Video and Transcript: Uber's Travis Kalanick. Fortune, July 23, 2013. (for.tn/1H593lv)

Postscript: One Year Later

It was now December 2016, and in the past year, Uber had continued to live up to its reputation as an aggressive disruptor with three prominent moves:

A Complete Overhaul of its Mobile App: In late 2016, Uber had released a complete revamp of its mobile app. Although Uber continued to use surge pricing to set prices, the app no longer referred to surges explicitly, and instead adopted a different approach that the company argued was more transparent: It now allowed users to know in advance what the total cost of their ride would be, while making it easier for users to compare total ride prices across options (e.g., UberX versus UberBlack) before booking a ride. The new app also remembered users' most visited places, enabled users to use their friends' locations as a destination, and gave users the option of giving Uber access to their calendars to mark meeting times and locations.

A Deal with Rival Didi Chuxing in China. In mid-2016, Uber had announced that it was selling its China operations to its biggest Chinese rival, Didi Chuxing. According to insiders, Uber had lost \$2 billion in two years in China. The deal enabled Uber to end the expensive price war it had been waging with Didi, and free up resources to focus more heavily on other markets. As part of the deal, Uber took a 20% stake in Didi, making it Didi's largest shareholder.

An Aggressive Test Launch of Self-Driving Cars. In perhaps its boldest move, in the fall of 2016 Uber had begun aggressively testing a fleet of autonomous vehicles on the streets of Pittsburgh. Under the test, a subset of passengers calling for rides in the city were now being given the option a self-driving car. The cars were monitored by a human supervisor sitting behind the wheel ready to take over the driving if necessary. As the Uber press release for the test stated, "We can't predict exactly what the future will hold. But we know that self-driving Ubers have enormous potential to further our mission and improve society: reducing the number of traffic accidents, which today kill 1.3 million people a year; freeing up the 20 percent of space in cities currently used to park the world's billion plus cars; and cutting congestion, which wastes trillions of hours every year."³⁷

³⁷ Uber press release, *Pittsburgh, Your Self-Driving Uber is Arriving Now*, Sept 14, 2016. (newsroom.uber.com/pittsburgh-self-driving-uber/)

Exhibit 1 Cease and Desist Order

STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION
505 Van Ness Ave.
San Francisco CA 94102

Arnold Schwarzenegger, Governor

October 19, 2010

File: None
Case: PSG-3018

UberCab, Inc.
Attn: Ryan Graves
182 Howard St., Ste. 8
San Francisco CA 94105

NOTICE TO CEASE AND DESIST

This letter places you on notice to cease and desist immediately all advertisements and operations as a for hire passenger carrier without a valid authority in force with the Commission. Continued violations of law may result in criminal prosecutions and termination of telephone service.

UberCab's website states that it collects the fees from the passenger and pays the limousine company for the transportation. This is a prime carrier/subcarrier relationship with the companies providing the transportation. In this role, UberCab, Inc. is required to have a charter party carrier permit issued by the Public Utilities Commission.

Pursuant to Public Utilities Code sections 5371, 5411, and 5415, any carrier which operates and/or advertises after revocation of their authority is guilty of a misdemeanor which is punishable by a fine of up to \$1,000 or by imprisonment in the county jail for up to three months, or both. Each day of continued violations is a separate and distinct offense.

In addition, Public Utilities Code section 5386.5 states in part, "No charter-party carrier of passengers shall advertise its services, or in any manner represent its services, as being a taxicab or taxi service." The name UberCab itself is representative of a taxicab service and thus prohibited under this code section.

To obtain an application and/or view information regarding the CPUC requirements for reapplying to reinstate your authority and operating a passenger carrier company, visit the Commission website or contact the License Section at (800) 877-8867.

<http://www.cpuc.ca.gov/PUC/transportation/passengers>

If you have any questions regarding this letter, I can be reached at

Very truly yours,

Investigator, Badge #
Consumer Protection and Safety Division
Transportation Enforcement Section

CC: Ed Rouquette, Supervising Investigator

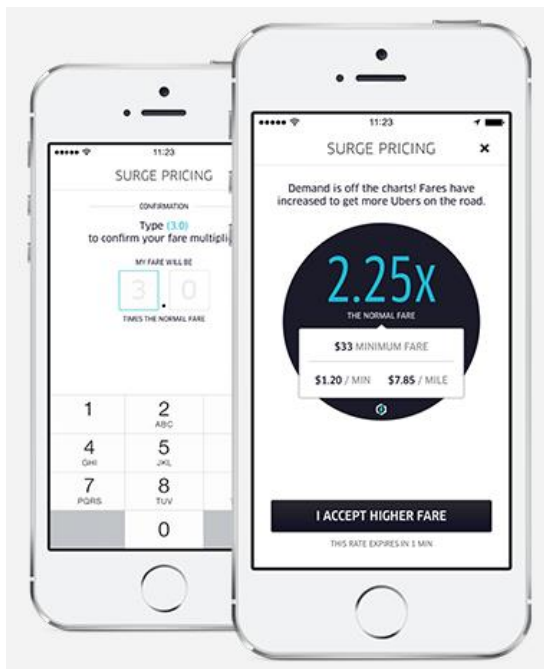
Source: Uber website. (newsroom.uber.com/2010/10/ubers-cease-desist/).

Exhibit 2 Screenshots from the Uber App



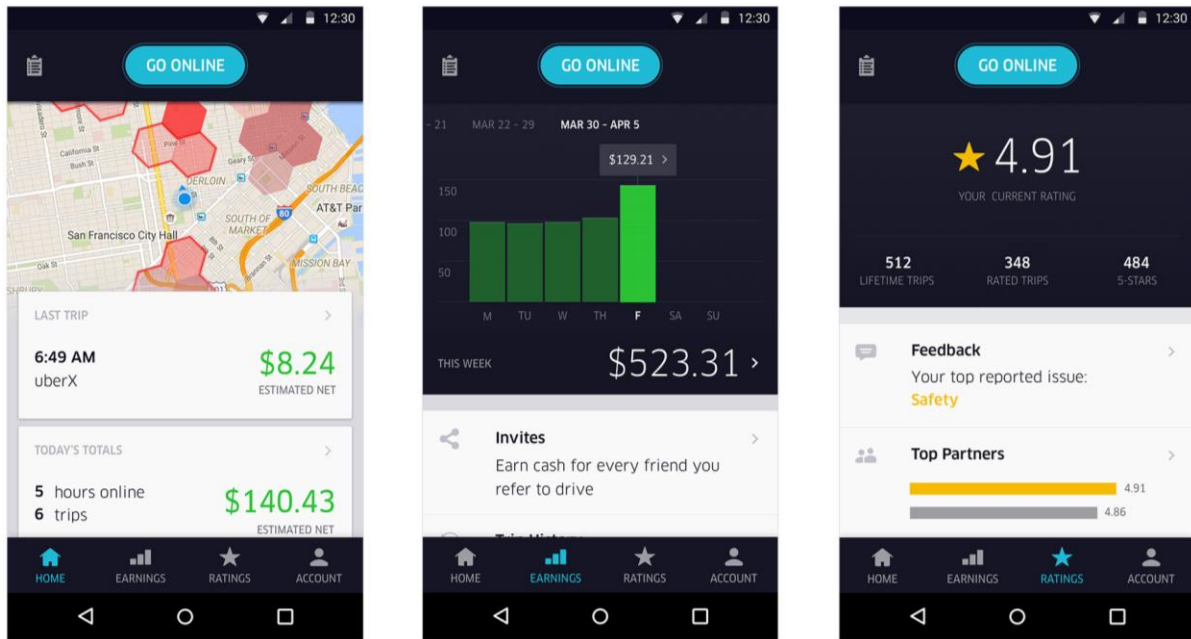
Source: Uber.

Exhibit 3 Screenshots of Surge Pricing in Effect



Source: Uber.

Exhibit 4 Screenshot of Uber’s Driver-Side App



Source: Uber.

Exhibit 5 A Comparison of a Subset of the Different Uber Services

Service	Description
UberBlack and UberSUV	Uber's luxury service. Commercially registered and insured livery vehicles, typically a black luxury sedan or SUV. Drivers must be professional livery drivers—they must have a commercial license, commercial insurance—and must own a high-end black luxury sedan or SUV.
uberX	Uber's low-priced service. Drivers are not professional livery drivers and a commercial license is not required. Drivers must be 21 or older with a clean driving record, and must own a model 2000 car (2005 in some cities) or newer and pass an independent vehicle inspection. Drivers must also have a clean driving history and pass a background check. Typical vehicles: Honda Accord, Toyota Camry, Ford Escort.
uberXL	Slightly higher fare price than uberX. Vehicles seat at least six passengers. Vehicles are ordinary minivans and SUVs (Honda Pilot, Dodge Caravan, etc.). Driver requirements are the same as for uberX.
UberSelect (aka UberPlus)	Only available in some cities. Uber's mid-luxury service. Priced are lower than UberBlack, but higher than uberX. Drivers are not professional livery drivers and a commercial license is not required, but they must own a luxury sedan (Mercedes, BMW, Audi) that seats up to four riders.
UberPOOL	Only available in some cities. Passengers share rides with other passengers and split the cost. Because of the carpooling nature of the ride, passengers may not be picked up first or dropped off first. An even cheaper option than uberX.

Source: Uber.

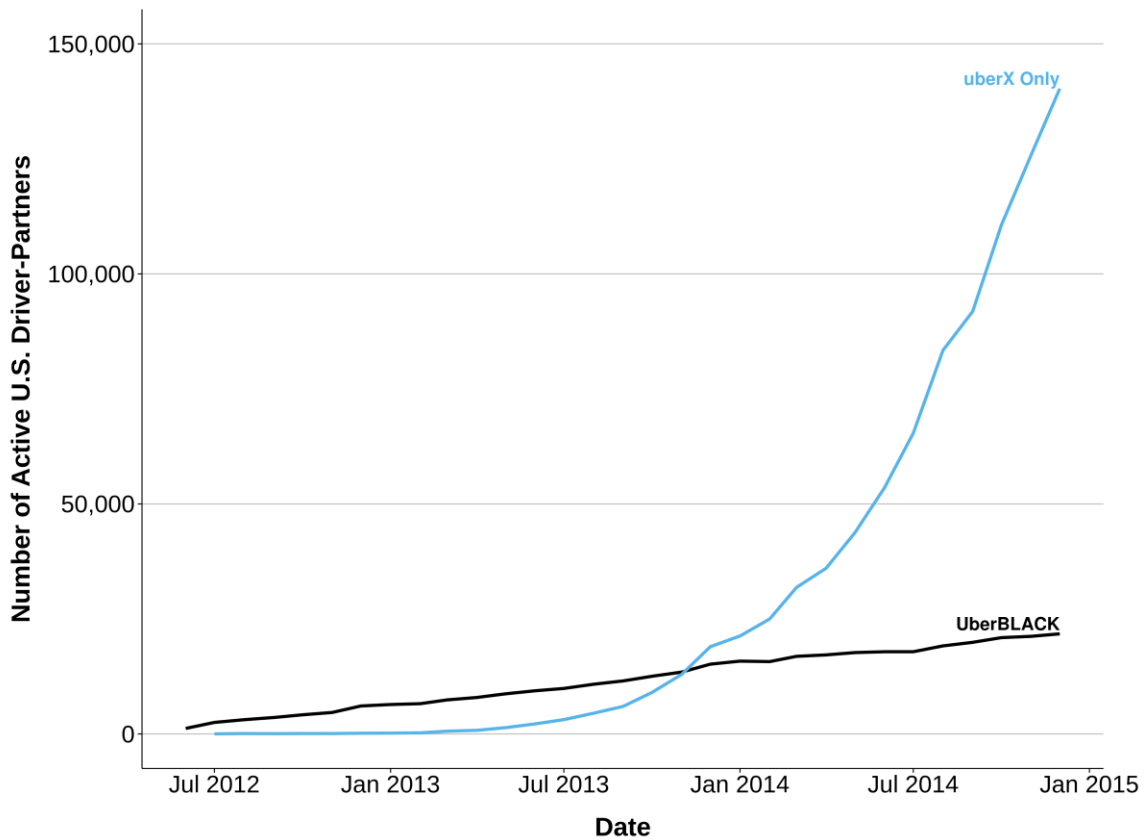
Exhibit 6 Estimated Driver Expenses for Typical uberX Driver

Miles Traveled: 40,000 Miles		
	New York City 2014 Toyota Camry	San Francisco 2014 Toyota Prius
MPG	25	48
\$/gallon	\$3.72	\$4.18
Depreciation	\$5,774	\$7,763
Fuel	\$5,952	\$3,483
Maintenance	\$679	\$919
Insurance	\$2,676	\$2,012
	\$15,080	\$14,177

Source: Data provided by Uber to Salmon, Felix. *The Economics of Everyone's Private Driver*. Medium, June 1, 2014. (bit.ly/1MfTNsQ).

Note: Assumes driver drives 40 hours a week and a total of 40,000 miles a year. Note that in most cases, the IRS allows individuals to deduct businesses expenses from business income. Typical deductions included gas, insurance, fees, repairs, mobile phone charges, depreciation, etc.

Exhibit 7 Active U.S. Uber Drivers by Type of Service (UberBlack vs. uberX)



Source: Uber website (ubr.to/1GPVxZt). From a study commissioned by Uber: Hall, Jonathan and Alan Krueger. *An Analysis of the Labor Market for Uber’s Driver-Partners in the United States*. Published Jan 22, 2015.

Note: Sample consists of all U.S. UberBlack and uberX drivers making at least four trips in any month.

Exhibit 8 Distribution and Median Hourly Earnings of uberX Drivers versus UberBlack Drivers, by Hours Worked (October 2014)

	1 to 15 hours/week		16 to 34		35 to 49		Over 50	
	Percent of drivers	Earnings per hour	Percent of drivers	Earnings per hour	Percent of drivers	Earnings per hour	Percent of drivers	Earnings per hour
UberBlack	29%	\$20.87	32%	\$20.85	19%	\$21.67	20%	\$20.76
uberX	55%	\$16.89	30%	\$18.08	10%	\$18.31	5%	\$17.13

Source: Uber website. (ubr.to/1GPVxZt). From a study commissioned by Uber: Hall, Jonathan and Alan Krueger. *An Analysis of the Labor Market for Uber’s Driver-Partners in the United States*. Published Jan 22, 2015.

Note: Data aggregated at the driver-week level. Figures exclude incentive payments that are offered to new drivers in some markets. Earnings are net of Uber fees but do not adjust for driver expenses.

Exhibit 9 Characteristics of Uber Drivers vs. Taxi Drivers/Chauffeurs and All Workers

	Uber Drivers	Taxi Drivers and Chauffeurs	All Workers
Age 18-29	19.1%	8.5%	21.8%
30-39	30.1%	19.9%	22.5%
40-49	26.3%	27.2%	23.4%
50-64	21.8%	36.6%	26.9%
65+	2.7%	7.7%	4.6%
Female	13.8%	8.0%	47.4%
Less than HS	3.0%	16.3%	9.3%
High School	9.2%	36.2%	21.3%
Some College/Associate	40.0%	28.8%	28.4%
College Degree	36.9%	14.9%	25.1%
Postgraduate Degree	10.8%	3.9%	16.0%
Previous experience working as a driver	49%	NA	NA

Source: Uber website. (ubr.to/1GPVxZt). From a study commissioned by Uber: Hall, Jonathan and Alan Krueger. *An Analysis of the Labor Market for Uber's Driver-Partners in the United States*. Published Jan 22, 2015.

Note: Uber data from a BSG study conducted December 2014 by Benenson Strategy Group, using a survey of Uber drivers in 20 markets that represent 85% of Uber's US drivers. All other data from the American Community Survey, which is based on nationally representative data. The ACS data pertain to the same 20 Uber markets as the BSG survey, and are for 2012 and 2013.

Exhibit 10 Comparison of Hours Worked by Uber Drivers vs. Taxi Drivers/Chauffeurs

	Uber Drivers	Taxi Drivers and Chauffeur)
1-15 hours/week	51%	4%
16-34	30%	15%
35-49	12%	46%
50+ hours/week	7%	35%

Source: Uber website. (ubr.to/1GPVxZt). From a study commissioned by Uber: Hall, Jonathan and Alan Krueger. *An Analysis of the Labor Market for Uber's Driver-Partners in the United States*. Published Jan 22, 2015. Taxi driver/chauffeur data from the 2012-2013 American Community Survey.

Note: Data for Uber drivers pertain to each week when they worked at least one hour in Oct 2014. ACS hours based on "usual hours worked per week in past 12 months."







Exhibit 11 Comparison of Median Hourly Earnings of Uber Drivers vs. Drivers/Chauffeurs

	Uber Drivers	OES Taxi Drivers /Chauffeurs
Boston	\$20.29	\$12.92
Chicago	\$16.20	\$11.87
Washington DC	\$17.79	\$13.10
Los Angeles	\$17.11	\$13.12
New York	\$30.35	\$15.17
San Francisco	\$25.77	\$13.72
Average Across All 20 BSG Survey Markets	\$19.19	\$12.90

Source: Uber website. (ubr.to/1GPVxZt). From a study commissioned by Uber: Hall, Jonathan and Alan Krueger. *An Analysis of the Labor Market for Uber's Driver-Partners in the United States*. Published Jan 22, 2015. OES (Occupational Employment Statistics) data from the Bureau of Labor Statistics.

Note: Data aggregated to the driver-month level and medians of hourly earnings reported for Uber's drivers who drove at least one hour a week during the month of October 2014. Earnings per hour are net of Uber fees but do not adjust for driver expenses. For OES Taxi Drivers and Chauffeurs: OES data from May 2013. OES average for all areas in last row is weighted by the number of taxi drivers and chauffeurs in the 20 BSG market areas. The figure reported for Uber in the last row is the weighted average of median earnings per hour in the 20 market areas surveyed, where weights are the number of taxi drivers and chauffeurs in the market area.

Exhibit 12 Driver Requirements across Industries

 <p>UBER</p> <ul style="list-style-type: none"> • Minimum Age 21 • 2000 or newer (2005 in some cities) • Pass Background Check 	 <p>TAXI</p> <ul style="list-style-type: none"> • Minimum Age 21 • Pay Application Fee • Pass Background Check • Get Fingerprinted 	 <p>BUS</p> <ul style="list-style-type: none"> • Minimum Age 22 • Pass Background Check • 3 week training program
 <p>HEAVY TRUCK</p> <ul style="list-style-type: none"> • Minimum Age 21 • Commercial license • Pass physical test • Private Truck Driving School or 3-6 Month Truck Driving Course 	 <p>DELIVERY TRUCK</p> <ul style="list-style-type: none"> • Pass Physical • Ability to operate a manual transmission • Commercial License 	 <p>COURIER, MESSENGER (15)</p> <ul style="list-style-type: none"> • Ability to lift 75 pounds • High school diploma

Source: Uber. (www.uber.com/driver-jobs).