## SAVING THE BLACK CAB

Why black taxis are vital to London's economy and identity

Nick Ferrari

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# About the Capital City Foundation

The Capital City Foundation is a new research unit created by Policy Exchange to develop policy ideas specifically for London. The focus of the Capital City Foundation is to protect and promote the prosperity of London – while seeking to ensure that the city is as pleasant, safe and affordable as possible for everyone that lives or works here. The foundation aims to create workable policy ideas that can be implemented by the city's governing authorities.

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# About the author

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# Introduction

Nick Ferrari

I drove a black cab once. I lasted four days.

And it wasn't even real, by the way. I was doing it for a TV programme named Call Me A Cabbie – a nice change from some of the other things people call me. But it was long enough, and real enough, to leave a very deep respect for the men and women who embody this unique, defining institution of London.

For all our capital's economic glory, we have lost some of the civic glories we took pride in as Londoners. However unfairly, not many people would say our police are wonderful any more. Not many would call the Tube a world leader. Our streets are filled with shops and vehicles which could be anywhere.

Now London risks losing one more thing which makes it different, special, and civilised: the world's best taxis. Cab-driving in London is a profession, its members an elite. Jody Rosen's brilliant article about the Knowledge in the appendix of this booklet explains just how difficult that elite is to join. Cabbies make a three or four-year commitment to qualifying, followed by a lifelong commitment to London. In their hands you'd be completely happy to leave your own children.

Cabbies need to change. You need to out-compete Uber, not just demand that someone else makes the competition go away. That absolutely should not – as some misguided voices have argued – mean diluting what makes you special, killing your USP Thanks in large part to Uber, London cab-driving risks becoming an entry-level job for the almost wholly unqualified and uncommitted: the inexperienced, the unskilled, the sometimes frankly dangerous. It risks clogging the capital up, not keeping it moving.

There's a place for Uber in London – a big one. It has expanded the market and brought taxis within more people's reach. Even if we could get rid of them – and we can't – that is not what Londoners want.

Yet as this paper reveals, Uber also has a dark side. So letting the company control the taxi market wouldn't be good for Uber users, black cab users, or the millions of other Londoners who never use either.

If the cabbies go down, Transport for London, the dozy regulator that let Uber run it over, may well become the next target: Uber is already starting to attack bus operators in some American cities. The company wants to dominate all city transport, and more: the clue, my friends, is in the name.

So to the cabbies, I propose a deal. In this booklet, I and others explain how we should do more to defend the black cab trade, and equip it for the future. Your quality, your skills, the amount of work you put in to serve London deserve nothing less. We need to put the brakes on the minicab explosion that is harming Londoners' quality of life and putting their safety at risk.

But in return, as I also propose, cabbies need to change. You need to out-compete Uber, not just demand that someone else makes the competition go away. That absolutely should not – as some misguided voices have argued – mean diluting what makes you special, killing your USP. It shouldn't even mean cutting your fares, at least during the day. Minicabs have been around, and have been cheaper, for decades without doing much damage to black cabs.

What it does mean is competing better on the real reasons why people choose Uber – predictability, convenience and marketing. It means putting your case better, to politicians and the public. It means working together more – to take more control over your own trade and cut down the role of TfL, who I know many of you hate.

Sadiq Khan's taxi action plan, published last month, sets out a few minor changes but is silent on the main issues. In this pamphlet, we make some bolder recommendations, both for Uber and the black cab trade.

In central London, there are still more black taxis than Uber cars. Uber's business model has serious weaknesses – not least the way it treats its own drivers. Most of all, of course, you are better at your jobs. With our help, there's every chance you can see off the competition.

This booklet explains how we can do it.

## Foreword

#### Andrew Gilligan Head of the Capital City Foundation, Policy Exchange

Why should we care that the black cabs might just die? What does it matter to the vast majority of Londoners who seldom or never travel in one? Why does it even matter to taxi-users, some of whom already have switched their allegiance to Uber?

It matters because the death of the black cab would affect all Londoners in practical, not just sentimental, ways.

It would not destroy safety or taxi-driving standards – but it would reduce those standards, putting the safety of Londoners, both taxi passengers and other road users, at greater risk. As this booklet will show, the change in the taxi market appears to be having this effect already.

It would increase traffic and pollution, as it already is doing.

It would reduce disabled Londoners' freedom of movement. All London black taxis are accessible, and there is a scheme for subsidised rides. Few Uber vehicles are fully accessible.

It would replace 25,000 skilled, well-paid working-class jobs – an increasingly rare commodity – with jobs that are almost the definition of the "precariat."

It might not, in the end, even be cheaper: as we describe, it would replace a publicly-regulated system with a new and dominant private operator, able to set the terms for customers, and not perhaps just taxi customers.

Yet the London black cab also stands for qualities that are more than merely utilitarian. The classic TX-series vehicle, with its space, its privacy, its comfort, embodies a kind of public-service idealism: a conviction made flesh, or at least aluminium, that something in the public realm should be the best thing possible, painstakingly and precisely crafted for the job it does, an object to grace the city it serves.

Those who drive a cab are bonded by the ordeal of the Knowledge into an elite with strong standards and values. It's a long time since any Londoner left their front door unlocked with money for the milkman. Many Londoners entrust their most precious things, their children, to a black cab driver, a total stranger, in the certain knowledge that they will be safe.

Above all, of course, the black cab and its driver is part of what makes London itself.

Even that might, in fact, have some monetary importance. London's prosperity is due not just to its internationalism but also to its Britishness. London attracts talent from across the world not because it is the cleanest or cheapest place in the world, but because it is the most interesting. Its character is an economic asset, not just an aesthetic one.

London is successful not just because of its openness and diversity, but also because of the stability provided by its institutions and its rule of law. Uber's conduct in other countries has sometimes lacked respect for existing legal structures and regulations, and its pronouncements suggest that its ultimate ambitions may have the effect of undermining public institutions, including the public transport network. London has, again, a strategic interest in resisting this. We are emphatically not against Uber, or any other e-hailing platform. In their hundreds of thousands, Londoners value the service and choice it provides. They want it to continue, and so do we. The black cabs can only survive if they come to terms with the fact that the market has changed and that they must compete more effectively, on price and convenience, in the new world.

Luckily, London's taxis are well placed to compete. In many other cities, the established cab service was poor. Here, it is not. We are certain that the trade's future lies in building on, not diluting, its strengths – while also learning from what attracts people to Uber.

But the market needs to operate fairly, and the mayor needs to ensure that it does. Last month Sadiq Khan announced his taxi and private hire action plan, describing it as an "unprecedented programme of far-reaching improvements." In truth, it was modest. Stronger steps are needed.

Uber's principal unfair advantage over its competitors – not just the cabs, but other private hire firms – is that, unlike them, it paid in 2013 and 2014 virtally no UK tax: a completely indefensible position, given its total dependence on roads provided by the taxpayer.

Every private hire vehicle operator in London, Uber included, needs an operator's licence. As this pamphlet describes, the Mayor – under the Private Hire Vehicles (London) Act 1998 – has wide powers to impose "any... requirements" on an operator as a condition of granting it a licence.

Uber's current operator's licence expires in May 2017. Sadiq should gladly renew it – but he should require, as a condition of renewal, that the company contributes to the cost of the roads it depends on. That could be done either by paying its fair share of those costs directly to TfL; or, for preference, by arranging for its UK earnings to be subject to UK tax. The same requirement, of course, should be applied to any other operator in the same position.

Uber and the black cabs are both part of London. But we shouldn't be giving any free rides.

# A note on definitions and terms

In this pamphlet, the terms **"black cab," "black taxi," "licensed taxi**" or **"licensed trade**" are used to denote the licensed London taxi.

There are 22,500 black cabs in London and 25,000 licensed taxi drivers (some drivers share or rent cabs). They must pass the Knowledge of London, a stringent series of examinations described in detail in Chapter 5, which typically requires up to four years of full-time study.

Only a small number of specified vehicle types meet Transport for London's "Conditions of Fitness" and may legally be used as black cabs. These are principally the London Taxi Company TX-series cab (which is the most common), the Metrocab; and the Mercedes Vito van conversion.

Black cab fares are metered. The rates are set by Transport for London. Only black cabs can rank (wait for business on one of the 500 TfL-appointed ranks in London), ply for hire (cruise the streets looking for business), or accept street hails.

The terms "**minicab**", "**private hire vehicle**" or "**PHV**" are used here to denote any other vehicle of 8 seats or less hired for payment, including Uber vehicles. Both driver and vehicle still have to be licensed, but to much lower standards and the vehicle can be almost any car. PHVs cannot rank, ply for hire or be physically hailed on the street.

The terms "**cab**," "**cab market**" and "**cab service**" encompass all parts of the market, both black cabs and minicabs.



Uber journeys are booked and controlled entirely by smartphone, with a passenger able to see the arrival time of their ride, the approximate fare and rate their driver. Sometimes, however, the information displayed is a "mirage", academic researchers claim. The term **"e-hailing service"** is used to mean those operators where you can only obtain a ride through an app. Other operators, including many black cabs, can also be e-hailed but accept passengers in other ways too.

Founded in 2009, Uber is an international, smartphone-based taxi service that operates in some 77 countries with varying degrees of controversy. Uber does not own or operate its own vehicles; it bills itself as a "platform" connecting customers to drivers who it claims are independent contractors.

Uber users download the Uber app on their phone, sign up with the service and give it their credit card number. To use the service they tap the Uber button on their phone. A map appears showing their location and those of the nearest Uber vehicles. The Uber app offers the user a number of options in terms of the size, type and "luxury" of the summoned vehicle. The standard service in the UK is called UberX. UberExec and UberLux are fancier, UberXL cars seat six, UberTaxi gets you a black cab and UberPool is a ridesharing option.

Unlike minicabs whose fares are fixed, Uber gives the user an estimated fare and then charges them based on a combination of distance and time (hence the argument that Uber is using "metered" fares just like black cabs). Estimates and actual fares usually coincide quite closely. Users get to rate the driver and journey on a scale of 0–5 and the driver also gets to rate the behaviour of the passenger.

# Summary of findings and recommendations

### The black cab's survival is a matter of public interest, not just sentimental value

We welcome Uber and other e-hailing services. They have expanded the cab market, exposed weaknesses in the existing service, brought cab services within reach of more people and extended services to more places. Londoners value them and want them to continue. Demands that they be banned are unrealistic and wrong.

We are absolutely clear that the black cabs must out-compete Uber, not simply demand that someone else send the competition away. Most of our recommendations are directed towards that end.

But as we will also show, there are concerns that Uber's aims appear increasingly monopolistic in their effect; its behaviour towards public authorities and journalists has often been questionable; concerns have been raised about the way in which it safeguards its customers' privacy; we do not believe that it is doing all it can to operate safely; and its ambitions appear to go much further than taking over the existing cab market. Based on what Uber is doing elsewhere, for instance, its future expansion may well undermine London's bus network.

There are social costs, as well as social benefits, to the rise of e-hailing – and more people feel the costs than the benefits. The growth in the number of private hire vehicles, largely caused by Uber, is increasing congestion for all road users. Uber's view appears to be that there can never be too many of its vehicles on the roads; we must disagree. The proliferation of Uber cabs has also coincided with a sharp rise in the number of accidents involving cabs.

There are significantly more reports of Uber drivers than black cab drivers getting into incidents and confrontations with passengers. Uber's model leads some drivers to work dangerously long hours. Uber has paid less than the full rate of tax – in two years almost no tax at all – for the roads it depends on, giving it an unfair advantage.

Some "new economy" critics have further argued that Uber is a would-be "platform monopoly"<sup>1</sup> whose desires for dominance represent as great a threat to the free market as the great American trusts of the early 20th century.<sup>2</sup> It demands government vigilance. Under the previous chancellor and prime minister, the British Government's approach was instead one of eager facilitation.

It is a matter of significant public interest, not just for the users of cabs, that London retains a competitive cab market and a diverse transport ecosystem

and that the bus service, used by 13 times more people each day than cabs, not be undermined. It is essential, too, that no one company be allowed to push the city around. What is good for Uber is not always good for London.

## The black cab trade must change to survive – but not how you might think

Some black cab fares are too high and must fall, above all those charged at night; all fares should rise more slowly than they have done in the past; more use should be made of promotional and flat fares.

But during the day, we find that fares for the most typical journeys undertaken by black cab users (relatively short journeys in central London) are only somewhat higher than Uber, not dramatically higher. For the most part, dropping fares is not the answer; dropping standards is emphatically never the answer.

There has been a two-tier cab service – black cabs and minicabs – in London for many years and it is clear that many customers are still prepared to pay a premium for the black cabs, provided the premium is not too high. But trying to charge a premium fare for a non-premium service – by diluting the Knowledge or reducing vehicle standards – would be disastrous.

Both the Knowledge and the traditional, roomy design of classic taxis like those of the TX-series are of great benefit to passengers, and are the unique selling points of the London black cab.

The Knowledge continues to have demonstrable practical and market value; and continues to ensure that the black taxi service is a premium one. Evidence shows that black taxi journeys are quicker than those guided by GPS.

The long and difficult process of passing the Knowledge remains a highly effective means of excluding unsuitable or dangerous individuals and creating a corps of skilled, professional drivers.

Black cabs also have a wider, symbolic value as an internationally recognised part of London's identity. The black cab is an important element of "brand London's" associations with elegance, tradition and quality, and thus has an economic value beyond the purely transportational.

The black cab must keep what makes it worth keeping, and worth paying for.



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Accordingly we recommend that:

- The rigour of the Knowledge must be preserved, though the way it is examined could be reformed.
- The visual and ergonomic distinctiveness of the black cab should be preserved and enhanced.
- No further examples of the Mercedes Vito black taxis that have diluted the black cab brand should be licensed.
- The next generation of electric and hybrid black cabs must preserve the unique features of the London black taxi.
- As a premium service, black taxi drivers should uphold and be held accountable to the standards for which they are famous, which means that licences should be suspended or revoked whenever necessary.

We find that at least during the day, the black cab's main competitive weakness is not price – but predictability and convenience. With Uber, you know, within a relatively narrow range, what the fare will be, you know when the cab will arrive, you do not have to wait in the street, and no cash has to change hands. Black cabs do not consistently offer these services. "Meter anxiety" from sitting in the back and watching the price tick up can be considerable. A new generation is getting into the Uber habit and out of the black cab habit.

Accordingly, we recommend:

• The creation of a universal black cab app which provides a predictable, convenient and cashless service – though customers could still pay cash if they wished. TfL should shoulder the costs of the new app, and all cabbies should be required to take part.

During the day, black cabs' fares are more expensive than Uber, but not enormously more. The premium can be justified by the better service they provide. Night fares, however, are prohibitive, often more than double those of Uber. Black taxis may be better than other types of cab, but they are not twice as good. No other city charges such a high night premium. Longer-distance fares are also prohibitive, again charged at a heavy premium to shorter journeys (at all times of day or night).

Moreover, the black cab trade has consistently raised its fares by more than inflation, even this year in the face of stagnant or falling petrol prices and fierce competition from Uber. This is extremely foolish.

Accordingly we recommend that:

- Night-time fares must be reduced. Tariff 3, the 45% premium tariff between 10pm and 5am, should be abolished.
- To address "meter anxiety," fares for longer journeys should be reduced. Tariff 4, the premium tariff for journeys over 6 miles, should apply only after 12 miles.
- There should be more special and promotional fares, including flat fares from Heathrow to central London.
- Future fare rises should be held only to the amount of black cab inflation. The anchronistic "cost index," which governs fare rises, should be reformed to reflect only the actual costs of running a black taxi.
- Black cabs should provide added-value services, such as free wifi and charging points, and market themselves more effectively as tour guide or courier services.
- Daytime fares for most journeys need not be reduced.

We also suggest a series of other reforms and changes that will enable black cabs to be more competitive, supply better taxi service to suburban areas, improve currently hostile relations between the black cab trade and Transport for London and protect the interests and safety of cab passengers and the general public. Some of these depend on the cab trade, others on TfL and other government bodies.

- The forthcoming switch to "zero emission capable" taxis could transform both the economics and image of the black taxi trade, but also carries significant risks. TfL must expand its changeover grants programme to ensure that the licensed trade is not disadvantaged by its new environmental obligations, which though necessary are more onerous and kick in sooner than those on PHVs. TfL must provide more electric charging points than are currently planned.
- Black cab ranks are increasingly important for business; more should be created.
- TfL must work to mend its dysfunctional relationship with the licensed trade. But the fault is on both sides; the trade is Balkanised and cabbies can be difficult people for a regulator to work with. If black cabbies want, as they do, to reduce TfL's influence in their lives, they must demonstrate the ability to work together as an industry more constructively and unitedly.
- Cabbies must present their case better both to government and the general public. The trade's political and public relations efforts are overly influenced by a minority of ultra-conservative drivers whose tactics are entirely counterproductive and play into their enemies' hands.
- If the changes to fares and apps are agreed by the trade, TfL should appoint a director of black taxi marketing, and should fund a marketing and advertising campaign to promote the black cab.
- As the population of suburban areas grows, as property prices push middle class taxi-users further out of London, and as the Night Tube expands, there will be greater demand for taxis in the suburbs. Apps will bring black cabs new opportunities in the suburbs, where they are currently thin on the ground. Accordingly, TfL should reduce the number of suburban sectors from nine to four to improve flexibility for suburban licensees.
- TfL should introduce grants and scholarships to encourage younger people to take the Knowledge.
- The Knowledge should be accredited by Ofqual to give it educational currency.

We also recommend substantial changes in the regulation of Uber and other private hire operators for hire vehicles, and improved enforcement of existing regulations. The change of government offers the opportunity to move away from the previous administration's unconditional reverence for American tech companies. In general, the Government should regard itself as Uber's regulator, not its facilitator.

On taxation and sharing the costs of road infrastructure:

• Private hire vehicle operators should be required to be based in the UK for tax purposes. They must pay full UK tax on their UK profits, and UK VAT where applicable, for the upkeep of the roads on which they entirely depend.

If this cannot be accomplished under existing national legislation or policy, the Mayor and Tf L have a power under section 3 (3) (b) and 3 (4) of the Private Hire Vehicles (London) Act 1998 to require a PHV operator to obey "any... requirements that may be prescribed" and "such other conditions as the licencing authority may think fit" as a condition of being allowed an operator's licence. (The original 1998

act vested this power in the Secretary of State for Transport, but with the establishment of the London mayoralty it was changed to the licensing authority, namely TfL, by the Greater London Authority Act 1999.)

- Any operator which is not based in the UK for tax purposes, and does not pay full UK tax on its UK profits, should as a condition of being granted a London operator's licence be required to pay each year an amount equivalent to the cost of its share of maintaining the roads in London that year, or an amount equivalent to the tax it should have paid, whichever is greater.
- Uber's London operator licence, which expires in 2017, should be renewed only on condition that it agrees to pay its share for maintaining the roads, or agrees to become UK-based for tax purposes by no later than 5 April 2017.

On driver and passenger safety:

- As it has already done in New York City, Uber should introduce a maximum 12-hour day for all its London drivers, and permanently remove from the platform any who repeatedly exceed it. Given Uber's ability to monitor its drivers in real-time, this could be accomplished very swiftly. Other e-hailing services should also introduce this requirement.
- E-hailing services should also require any driver who works more than 60 hours in any consecutive six-day period to then take at least one full 24-hour period off before s/he can resume driving.
- E-hailing services should undertake to monitor driver speeds and take appropriate action against any driver who regularly speeds.
- E-hailing services should be obliged to share data on each driver's hours of work with TfL so it can check that drivers are not exceeding safe hours, either with one operator or by working, say, 12 hours for one operator then a further 5 hours for a second operator.
- It has been shown to be possible for drivers without adequate insurance, or with faked insurance documents, to be accepted on to the Uber platform. Uber and other e-hailing operators should be required to indemnify their customers against any failure of a driver to have adequate hire-and-reward insurance.
- All these requirements should be imposed on all operators as conditions of their operator's licences being renewed (in Uber's case in 2017) under the 1998 Act above.
- Criminal record and other checks on PHV drivers should be tightened. No-one without a demonstrable criminal-free history should be given a licence. It is essential for public safety that foreign drivers be no less rigorously scrutinised than UK drivers.
- TfL and police statistics should break down black taxis and PHVs, particularly on crime and safety issues recently, TfL has started to tally them separately but published statistics still lump them together. For crime and safety statistics on PHVs, the identity of the operator should be given in each case, allowing authorities to pinpoint problems with individual operators.
- An investigation should be opened into Uber's privacy standards, following repeated breaches in other countries. Uber should seek much more explicit consent from its customers about how it uses their private information.
- All PHVs should be required to pay the congestion charge, including vehicles which would be exempt if they were private cars, such as the plug-in hybrid version of the Toyota Prius.

- There should be an annual limit on the number of new PHV licences. If national legislation does not allow this, options should be explored for using the 1998 Act powers to achieve it.
- There should be restrictions on where PHVs can wait and park in central London, and minicabs waiting for business must switch their engines off.
- Traffic and parking wardens should target idling vehicles as the City of London already does.
- As a condition of the renewal of their operators' licences, PHV operators should have to undertake that a higher proportion (initially 30%) of their vehicles be accessible.
- Section 165 of the Equality Act 2010, requiring PHVs to take disabled passengers, should be brought into operation.

## 01

# Endangered, but not doomed

"We need to help the black cab trade itself to be the technological leader and the natural people that the customers want to go to ... the black cab trade is going to continue to flourish and prosper provided it moves with the times." Boris Johnson, former Mayor of London<sup>3</sup>

In Belgrave Square, of all places, a lone driver in London's new-tech taxi revolution suddenly finds his car blocked on all sides by a demonstration of angry black cabs, "their exhaust pipes billowing clouds of diesel smoke, their cabbies shaking irate fists and shouting unprintable war cries."<sup>4</sup>

But it isn't 2016 and the cabs stopping the traffic weren't, on this occasion, TX4s. It was 1961, they were Austin FX3s – and the technology they said was going to kill them off was the two-way radio, as used by London's first-ever minicabs. The "Battle of Belgrave Square" was the opening skirmish in what became known as the "Minicab Wars," set off by a young law graduate called Michael Gotla and his fleet of 800 red Renault Dauphines, driven by chaps in beige corduroy suits and forage caps.

Dialling WELbeck 0561 would summon one of "Gotla's Private Army" to the wilds of Plumstead or Merton Park, ready to transport you for a mere 1/- per mile. The parallels with today are striking: Gotla was vilified by cabbies, lionised by the media, and occasionally sailed rather too close to the wind.<sup>5</sup>

Of course, the black cab trade didn't die. It upped its game, bringing in better vehicles and also taking bookings by phone, and it flourished. There are three times as many licensed taxis in London today as there were in 1965.<sup>6</sup> Reports of the black cab's imminent demise are exaggerated now, too. The number in London, 22,500, is only a hundred below the all-time peak year of 2011; there are 4,000 more than there were in 1995.<sup>7</sup>

According to Steve McNamara, general secretary of the industry's largest trade association, the LTDA, the last few months have actually seen a modest revival in business, at least during the day. Passengers, he says, are turning away from Uber drivers who "haven't got a clue" about the geography of London.<sup>8</sup>

The number of new candidates applying to TfL to take the Knowledge rose last year by 24 per cent – from 1799 to 2226. The number given their green or yellow badge (after a typically three to four year examination process) was 923 – only fractionally down on the year before, and the third-largest graduating "class" since 2007.<sup>9</sup>

Nor has the number of new black taxis joining London's fleet fallen since Uber's arrival. In 2011, London's last full pre-Uber year, 1357 new black cabs were licensed. In 2014, the last full year for which figures are available, it was 1485. In the first eleven months of 2015 it was 1249, equating to a full year figure of perhaps 1362.<sup>10</sup>

Stories last year about the demise of Knowledge Point, one of the main schools training black cabbies, were also misleading: the school faced closure because of rising rents, not falling demand for its services, and has now secured a new venue nearby allowing it to stay open.<sup>11</sup> It is one of at least ten Knowledge schools still trading.<sup>12</sup>

Polling shows real public pride in and support for the Knowledge and the black cab trade. People very much want to keep a mixed economy of black cabs and private hire vehicles.<sup>13</sup>

Yet even after the recent uptick, daytime business is still down 15 per cent in the last two years, according to the LTDA's Steve McNamara, and night hires have fallen off a cliff, down 30–35 per cent over the same period.<sup>14</sup> The average number of black cabs entering central London on a weekday in June 2016 was 8 per cent below that the previous November, while the number of PHVs rose by 11 per cent over the same period, according to Freedom of Information requests.<sup>15</sup>

It may be that the loss of business to Uber has been cushioned by the 25 per cent fall in the price of diesel over the same period. That may help explain why there has not – yet – been the shrinkage of the black cab trade that some expected.

But low diesel prices will not last for ever. The overall number of taxi drivers licensed by TfL is drifting down, from 25,500 in 2014<sup>16</sup> to 25,000 last year.<sup>17</sup> And the long-run picture of Knowledge students shows a broad trend of decline over the last eight years:<sup>18</sup>

Financial year	New Knowledge candidates
2007/08	2737
2008/09	2685
2009/10	2451
2010/11	2546
2011/12	3484
2012/13	3131
2013/14	1799
2014/15	2226

This is not an industry in rude health. But the unthinking predictions of doom made by so many are wrong. Enough people – cabbies, prospective cabbies and customers – have confidence in the trade to give it a secure future, if it takes the right turnings.

#### A route to success by fighting smarter

Black cabbies have to out-compete Uber, not just demand that TfL, the Mayor, or the courts somehow sends the competition away. This is something they can achieve more easily than their equivalents in other countries.

In many cities around the world, e-hailing in general and Uber in particular found an open goal; existing taxi services used ill-qualified drivers and scruffy vehicles and turned up late when you booked them. But London's black cabs and drivers are consistently rated the best in the world<sup>19</sup> and satisfaction rates with the service are very high – 83 per cent in TfL's latest survey.<sup>20</sup> London's is also the world's largest cab market, offering the prospect of enough work for everyone if some changes are made.<sup>21</sup>

Of course, as we will describe, Uber has benefited from aggressive political lobbying, the advantageous terms it extracts from its drivers and its limited exposure to the UK tax system compared to its rivals. Later in this booklet, we recommend ways to address these things. But they are not the only, or even the main, reasons why it has prospered.

Uber and other e-hailing services have identified gaps in the market and weaknesses in the services the licensed trade provides. Uber has as a result acquired a real customer following – which has, in turn, become a political force.<sup>22</sup> Even if it were desirable or legally possible to ban e-hailing services, which it is not, it would not be politically possible for any Mayor to do it.

It is unfortunate that the London Assembly Conservatives, among others,<sup>23</sup> have suggested that the way for the black taxi trade to compete is to race Uber to the bottom on standards, vehicles and prices, and to compromise on the very things that make the black cab special: the Knowledge, and the vehicle itself. Tellingly Uber, too, has called on the trade to "level the playing field by reducing today's burdensome black cab regulations."<sup>24</sup>

That would, in fact, be fatal. What makes the black cab service special is what makes it worth paying for. Some of our suggested fixes probably will cost drivers small amounts of money. But they may well save the trade, and the incomes of all those in it, for the long term.

#### The cab trade and the new Mayor

In his "taxi and private hire action plan," published last month, Sadiq Khan described the black cab trade as an "icon of our city" which "should be supported."<sup>25</sup> An accompanying press release stated that the plan was an "unprecedented programme of far-reaching improvements," representing a "new era for London's taxi and private hire trades."<sup>26</sup> The positive language towards the trade is welcome but the measures, including funding to help cabbies change to new, mandatory eco-friendly vehicles and a 20 per cent rise in the number of taxi ranks, were mainly reannouncements of policies from his predecessor, Boris Johnson.

New initiatives taken by the mayor are a rise in the number of enforcement officers, from 80 to 250, and allowing taxis into a further 20 bus lanes. Little specific was said in the action plan about the more central issues of fares, tariffs, apps, safety or potential restraints on the number of PHVs.

In two respects, the new mayor appears to have rowed back from Johnson's position. A comprehensive review of taxi tariffs, fares and the archaic mechanism by which they are increased, due this summer, has not appeared. On fares, the action plan now states merely that the goal is to "ensure drivers and customers get the best deal,"<sup>27</sup> naming drivers before customers.

On controlling the numbers of PHVs, Johnson stated in January that he was "pushing [central government] for legislation to enable TfL to restrict overall numbers of private hire drivers and vehicles."<sup>28</sup> This aim does not appear in the

list of legislative wants in Khan's action plan. It should. Johnson also "asked TfL to investigate the impact and feasibility of removing the Congestion Charge exemption for private hire vehicles in central London."<sup>29</sup> Specific language on this is also missing from Khan's action plan, though it does speak of "exploring options for addressing the congestion caused by the rise in the number of PHVs, particularly in central London."<sup>30</sup>

To be fair, as the mayor himself states in his foreword to the plan, it is only a "first step." We set out below some of the further, bolder steps which he, TfL – and the cab trade – should take.

## 02

# What's right with the black cab – and how to preserve it

## The Knowledge continues to have enormous practical value, and not just for wayfinding

In the GPS age, some see the Knowledge as an anachronism on a par with the steam engine. In fact, for the task it performs, the Knowledge remains a highly practical, efficient and necessary instrument.

That task is not only to produce someone who knows the way, though it does this superbly. That is only about half the task. The Knowledge is also the reason why you can almost always trust a London cabbie not to cheat you, not to assault you, and not to endanger you with his driving.

Calls to reduce its fiendishness miss the point. Its fiendishness is the point. By creating an ordeal which few can overcome, you weed out the unsuitable and the uncommitted (as we show in the next chapter) more effectively than TfL's bureaucratic vetting process could ever hope to do.

You also foster something no money or technology can buy: an elite with a proud, distinct culture, high standards and a professional interest in providing a first-rate public service. For a driver not to live up to those standards is to disgrace the profession, which is why it so rarely happens.<sup>31</sup>

Much of British society used to be run on a similar basis of pride, confidence and trust. The bits of it that work best – such as the armed forces – still are. It is those parts of national life now taken over by the mechanisms of mistrust – bureaucratic regulation, electronic surveillance, smartphone tracking – which perhaps work less well.

Uber is casual labour. Black cabbies are the professionals. The Knowledge is what makes them professional. Without it, there is no black taxi trade.

See the Appendix for the authoritative account of the Knowledge by Jody Rosen in the *New York Times Magazine*.

#### Journeys by black cab are, quite simply, quicker

The Knowledge-trained human brain continues to be a better navigational tool than any computer. GPS can work well in small cities, or planned large ones, with US-style grids or Parisian-style boulevards. London is neither small, nor planned. Policy Exchange has trawled the scientific literature and countless media tests for any evidence at all that GPS is better than a cabbie at navigating the capital's tangled streets. We have found none – though we invite any correction.

There is, however, copious evidence to the contrary. An exercise conducted by the BBC in 2007 found that a black cabbie beat GPS over the same sequence of journeys by 27 minutes – even though he was barred from using bus lanes. As the reporter put it:

"The latest [GPS] devices come with traffic avoidance, which means they download traffic information and recalculate the route to avoid traffic jams. They can also find a number of different types of locations, including specific addresses, town centres, road junctions and points of interest.

Andy, the cabbie, who accepted our challenge also comes fully loaded with a near encyclopaedic understanding of London roads... but in his organic brain he also had an extra compartment marked 'common sense.'"<sup>32</sup>

In 2014, the Wall Street Journal newspaper ran what it called the "London taxi challenge." Three of the newspaper's reporters did the same journey (from near Ludgate Circus to the Shard) at the same time in a black cab, an Uber car, and an Addison Lee car. The black cab took 8 minutes and cost £11. The Addison Lee car took 13 minutes and cost £11. The Uber car took 23 minutes and cost £18.<sup>33</sup>

As the paper said, the Uber driver "wasn't familiar with the Shard, one of the most recognisable landmarks in London, and took a different route from the other two, which ended up taking twice as much time."<sup>34</sup> Uber was operating surge pricing at the time. But as we shall see, even compared with non-surge rates, a short or medium-distance black cab ride – in the daytime – is not that much more expensive than Uber.

The same year, yet another such exercise was done by the Guardian: Uber did the run from the paper's offices to Parliament in 22 minutes and cost £12. A black cab did it in 18 minutes and cost £13. The cabbie won by taking (with the passenger's permission) a slightly longer route which he knew to be quicker.<sup>35</sup>

Other media tests by Auto Express<sup>36</sup> and the Daily Telegraph<sup>37</sup> found precisely the same thing: the black cab was quickest, Uber got lost.

Medical research famously shows that part of a London cab driver's brain physically grows as a result of taking the Knowledge.<sup>38</sup> What is less well known is that the same part of the brain – the posterior hippocampus, which is linked to memory – actually shrinks as a result of using satnav. So GPS apparently makes its users stupider and even less able to navigate accurately than they could to start with.<sup>39</sup>

### The knowledge in the Knowledge is a treasure chest of information useful for taxi users

What cab drivers know, thanks to the Knowledge, is more than just routes, short-cuts and addresses. They know the lore of London, its history, habits and eccentricities. They know the nicknames of streets and neighbourhoods, the locations of different pubs with the same name and where the tangle of a one way system makes it much quicker and less expensive to drop off a passenger a short walk from his or her actual destination.

One black cab driver, David Styles, puts it like this:

"When gentlemen have enjoyed supper at their club with their old regimental chums, they need a taxi to take them to the station. As they can generally afford to live in East Sussex, their station, Victoria, is only six minutes from Pall Mall. Depending on which entrance they want, they ask for The Shakespeare, Old Gatwick, or Hole in the Wall. And actors don't want to arrive at the front of the theatre. They want the stage door. And yes, we have to learn those too. Show me a satnav which not only has that database but can be programmed in seconds, and I'll buy shares in it myself."<sup>40</sup>

Satnav cannot find you the nearest late-opening chemist. It cannot tell an American tourist what station to go to for the train to Bristol. It cannot warn you that the museum you ask to be taken to is closed on Mondays. It cannot tell you the name of the theatre when the only thing you can remember is the name of the play.

You might say that this is the kind of information you can look up on your phone; but many visitors to London don't use mobile internet because of high roaming charges. Even among UK adults, 39 per cent do not, or cannot, use mobile phones to access the internet, according to Ofcom (something which also rather limits access to e-hailing services, see chapter 5).<sup>41</sup>

It is of course true that, for users who are not in a particular hurry, GPS will often be "good enough." But most of the time you only take a taxi if you are in a particular hurry.



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Conservative members of the London Assembly have called for the Knowledge to be "scrapped in its current form"<sup>42</sup> because it is a "major barrier to recruitment"<sup>43</sup> which deters young people from becoming black cab drivers.<sup>44</sup>

As we see from the figures in the previous chapter, this is not true. Numbers taking the Knowledge remain fairly high and have fallen only slightly in recent years. Complaining about the lack of young taxi drivers misunderstands how individuals enter the trade: most are not and never have been school-leavers, but are people in their 30s and 40s looking for a career change, often skilled manual workers wanting something less physically demanding as they get older.<sup>45</sup>

Some cabbies and users allege that the requirements of the Knowledge have been eased or that the examiners' standards are lower, though we can find no authoritative evidence for this.

In any case, we argue that the Knowledge should not be relaxed in any way. There may, however, be some scope for streamlining the way it is taken. The written exam in the early stages could be done online, though the one-to-one oral tests known as "appearances," the meat of the Knowledge, should not be changed.

"You've got to get out on the bike": a 'Knowledge Boy' learning the London streets on his moped.

To reverse the gentle decline in the number of people taking it, scholarships or bursaries could be offered, particularly for younger candidates. But so long as the numbers stay up around current levels, there is no point scrapping or diluting the Knowledge. Doing so wouldn't save existing cabbies a single penny; they have already made the investment.

The standards of both navigation – and general behaviour – which the Knowledge bestows are things for which there are still enough customers willing to pay a premium, so long as the premium is not too high. To sacrifice the Knowledge would be to give away a substantial market advantage.

The Knowledge has also been endorsed by the new Mayor, Sadiq Khan, who has praised the "incredible geographical recall and sense of direction that only those with The Knowledge have."<sup>46</sup>

• We recommend that the Knowledge not be diluted. Scholarships or bursaries for young people to take it should be created.

## Accrediting the Knowledge and extending it to other professions

The Knowledge has significantly more value and rigour than many "regulated" (accredited) qualifications taken by young people and others. Part of the key to retaining its attraction for future candidates is integrating it into the wider educational environment so it becomes a qualification with currency beyond its specialised world.

• We recommend that the Knowledge should be added to Ofqual's register of regulated qualifications at level 4 (above A-levels), a proposal which has also been made in TfL's recent taxi action plan.

#### **Creating Ambassadors of London**

Cabdrivers are already informal ambassadors of London. There should be a formal Ambassador of London qualification, at Ofqual level 5 or 6 (the status of a Higher National Diploma or degree), for successful students of the Knowledge who wish to undertake further study and professional development.

The qualification would build on the general knowledge of London already tested in the Knowledge. Ambassadors of London would be the elite of the elite, sent to represent the city at events such as the Olympics and travelling to other countries to spread the word about London. When at home, they could act as tour guides for visitors and hosts for visiting dignitaries. The qualification would be a fitting recognition of cabbies' intense knowledge and love of London.

• We recommend that TfL and the trade start to develop the syllabus for an advanced Knowledge qualification.

#### Preserving the distinctiveness of the black cab

No other means of transport compares with the marvellous space, privacy and character of a traditional London TX-series black cab. On a freezing, rainy winter's night, there are few greater transport pleasures in London than seeing the yellow light and being scooped up from the cold street into your little compartment with the rain lashing against the windows and the heating (controllable by you) turned on full. There is legroom, there is headroom, there is calm and quiet, there is privacy and separation from the driver. It is hard to think of a more instantly-recognisable motor vehicle remaining in mass service, anywhere in the world. Even the noise it makes – memorably described as like an industrial sewing machine – is unique.

It was therefore wrong for the black cab trade to demand to use an undistinguished converted van, the Mercedes Vito, as a licensed taxi – and an even bigger error for the then Mayor, Boris Johnson, to let them. A van may be cheaper to buy and run than a TX4, and its use as a licensed taxi was supported by Bob Oddy, the then General Secretary of the LDTA, who said: "I don't think you can have an icon at any price."<sup>47</sup>

But, like the cabbies' pressure to charge very high fares at night, the adoption of these vehicles was a mistake on several levels. They have diluted the specialness of the London taxi "brand": no visitor to London could feel a thrill at their first ride in one. For passengers, sliding along your seat and trying not to fall forwards in a Vito when they brake is not a pleasant experience. Riding in a Vito taxi is more expensive than travelling in, for example, an Uber car, but less enjoyable.

The longstanding "conditions of fitness" for black cabs, once imposed by the Public Carriage Office and now by TfL, still have great practical relevance. The main conditions are that cabs must have adequate luggage space; be wheelchair accessible; have a partition between driver and passenger; and have a tight turning circle. Few who have seen an Uber vehicle clumsily executing an eight-point turn in the middle of Regent Street would question this last requirement, for instance, or its value to other road users.

Some prescriptions for the future of the trade say that black cabs should survive by abandoning the conditions of fitness and adopting cheaper vehicles. But charging higher fares than Uber can only work if you are offering a premium product.

It is sometimes also suggested that - to reduce black cab drivers' expenses - maintenance, upkeep and testing standards for licensed taxis be reduced to the same level as those which apply to PHVs. In practice, however, the vast majority of the technical maintenance, upkeep and testing stipulations which apply to black cabs also apply to PHVs.<sup>48</sup>

The only major differences are for the maintenance, upkeep and testing of things which are specified in the conditions of fitness and are intrinsic to the design of the vehicle, such as wheelchair accessibility, a partition and intercom between passenger and driver, a meter and central door locking. These could not be removed from the standards or the testing without significantly degrading the premium experience.

It is more expensive to run and maintain a black taxi, but that simply reflects the cost of purchasing and maintaining the kind of vehicles black cabbies have to buy. Standards of cleanliness (internal and external) seem to be enforced more rigorously on black cabs than on PHVs, but that is surely correct in view of the premium service and price.

- We recommend that the Conditions of Fitness be retained and tightened to preserve the iconic appearance of the black London cab. We recommend that no further Mercedes Vitos be licensed (though in practice this will occur in 2018 anyway, if the company does not develop a zero-emission capable version).
- The next generation of black London taxis discussed more fully in the next chapter must (and largely does) retain the aesthetic distinction of the classic cab, while also including new environmental features to make them among the cleanest vehicles on the road.

## The black cab exemplifies a London market strength: premium service at a price which is still accessible

London is identified worldwide with elegance and luxury, but in a relatively open and accessible form. It is not necessary to have vast wealth, merely a reasonable standard of living, to enjoy (for instance) dinner at a glamorous restaurant, a night at an Edwardian theatre, or a ride in the world's best and most comfortable taxis. A premium destination like London needs a premium taxi service.

• We recommend that black cabs add further value by installing amenities such as free wi-fi, mobile phone charging plugs, laptop plugs, etc. The new eco-taxis to be introduced from 2018 are likely to have these as standard.

## The black cab has a wider economic value as an icon of "brand London"

All the great cities have functional icons that make them visually and aesthetically unique, such as the Guimard Art Nouveau entrances to the Paris Metro. The traditionally-shaped black taxi is as much a symbol of Britain as red double decker buses, post boxes and phone boxes – all of which have been threatened with extinction by leaders who believe that London's international competitiveness, its taking "its place in the modern world and its place in Europe,"<sup>49</sup> requires making its vehicles and street furniture indistinguishable from those of other cities.

But when foreigners come to London, whether as investors, immigrants or tourists, they expect and want to see these icons. They are objects of fascination overseas: in France, for instance, a technical website and forum devoted, entirely in French, to "le taxi anglais" has had 375,000 visits.<sup>50</sup>

London attracts people and capital from across the globe for many reasons. These include its economic and entrepreneurial opportunities, its artistic predominance, its great educational and cultural institutions, its historically cosmopolitan ethos, and its elegant residential quarters. Other great cities share these qualities but London also boasts a unique look and feel that is recognized around the world. The black taxi is an intrinsic part of that brand and should be defended along with other institutions that give London its character.

• We recommend that UK Trade and Investment, the Government's inward investment promotion arm, conduct an assessment of the economic value of icons of Britishness such as the black cab, to inform and discourage short-sighted attempts to undermine them.

## More than just a driver – the London cabbie has a wider social value

If you are lost in London, you don't ask a policeman for directions, because you can never find one. You ask a taxi driver. If you have been the victim of a crime, you know that if you flag down a black cab, you will find a responsible, capable Londoner who will be able, and almost certainly willing, to help, even if only to drive you to a police station or hospital.

London used to be full of informal authority figures like bus conductors, park-keepers, and council estate caretakers. Most have disappeared or lost the status they once had. Cab drivers are one of the few exceptions to this decline, being still around in sufficient numbers and retaining the kind of confident, professional ethos necessary to make a difference. It would again be more than a sentimental loss if their ability to influence behaviour in the public space were to diminish or disappear.

### Many say that black taxis are too expensive. During the day, they aren't

The average black cab journey in London is about 3 miles<sup>51</sup> and 74 per cent of all black taxi trips take place wholly within inner London.<sup>52</sup> During the day, for journeys of this length and below, black taxis are fairly competitive on price with Uber. Sometimes they are a few pounds more expensive, sometimes they are the same and sometimes they are actually cheaper. The shorter the journey, the more competitive they are. And that is before factoring in Uber's "surge pricing." The comparison is as follows.

Distance (Miles)	Black cab TfL estimates53	Black cab Independent ests <sup>54</sup>	UberX (cheapest) no surge <sup>55</sup>
1	£5.80-£9.00	£5.40	£5.00-£6.00
2	£8.80-£ 14.00	£9.10	£6.00-£8.00
4	£12.40-£22.00	£ 16.40	£ 10.00-£ 14.00
6	£ 17.40-£29.00	£25.00	£ 13.00-£ 17.00

Black cab fares in this table are those which applied from April 2016. Independent websites which calculate licensed London taxi fares tend to give prices towards the lower of TfL's estimates.<sup>56</sup> Uber fares are from the company's own online fare estimator for the same journey.<sup>57</sup>

Both black cabs and Uber charge by distance and time. The differential between black cab and Uber fares tends to be lower at short distances because black cab journeys tend to be quicker.

TfL has conducted a comprehensive review of fares and tariffs, which was supposed to have reported this summer but has not appeared under the new mayoralty. Sadiq Khan's taxi and private hire action plan, published last month, commits to "reviewing the annual taxi fares process to ensure drivers and customers get the best deal,"<sup>58</sup> which seems to us to place drivers and customers in the wrong order. TfL's review must be completed and published as planned. It must recognise that in the new world the interests of drivers can only be safeguarded in the medium and long term by placing the interests of customers first.

In the next chapter, we do recommend some significant changes to fares for night journeys, to fares for longer journeys at all times of day, and to the archaic "cost index" which has long produced excessive, above-inflation annual rises in cab fares. The TfL and mayoral review, when or if it comes, must address these issues.

But during the day, fares are not the main reason the trade is losing business and we believe that daytime fares for shorter journeys do not need to be reduced. Conventional minicabs have existed for many years at a similar discount to black cabs, without doing great harm to their licensed colleagues. A premium of no more than a few pounds per journey is probably justifiable and sustainable given the better service that black cabs provide.

• We recommend that daytime fares for journeys under six miles do not need to change.

## 03

# What's wrong with the black cab – and how to fix it

## Black cabs' most important failure to compete is on predictability and convenience, not price

68 per cent of London black taxi customers believe that their fares are too high.<sup>59</sup> Interestingly, however, this is made up of 48 per cent who say fares are "a little too high" and only 20 per cent who say they are "much too high." Perhaps even more interestingly, 58 per cent of private hire vehicle customers also said *their* fares were too high.<sup>60</sup>

In extensive interviews with Policy Exchange, Uber passengers have said that that they value several other things about the service at least as much as the fare, if not more:

- 1. They know when their ride will arrive.
- **2.** They can wait indoors.
- **3.** They don't have to worry that a cab won't stop for them (black and minority ethnic customers said this more than white customers).
- **4.** They know (within a relatively narrow range) how much the journey will cost before they commit to it.
- 5. No cash has to change hands.<sup>61</sup>

As one defector from black cabs put it:

"With Uber you don't have to wait in the rain, you don't have to sit there watching the meter ticking up and not knowing how much you'll end up paying, particularly if it's a journey you don't do regularly. And you don't have to make an emergency stop at the cashpoint – spending even more money on waiting time – because you've run out."<sup>62</sup>

Black cabs could do every one of these things just as well as Uber, or better. They just don't. A new generation of customers who live life on their phones is being dismissed by too much of the trade. A generation is getting out of the black cab habit, and into the Uber habit.

#### Black cabs have been slow to realise this

When black cabbies say their service is better, they mean they are better drivers and navigators and they have better vehicles. But new areas of service have come in where black cabs are not better. For more than ten years, Londoners have been used to paying for almost all their travel with contactless and credit cards. Virtually no journey in London – literally none on the bus network – is now paid for in cash.

Black taxis are the solitary exception, and an even more glaring one given the often inconvenient amounts of cash demanded. In surveys, Londoners have made clear their overwhelming wish to make credit card and contactless payments in licensed taxis – by 88 per cent<sup>63</sup> and 69 per cent<sup>64</sup> respectively. 40 per cent of London users said they would take black cabs more regularly if they could pay by card.<sup>65</sup> Yet even by late last year, according to TfL, "around half" of black cabs did not take credit cards.<sup>66</sup> Another TfL estimate put it at 42%. More than 20 per cent of black cab drivers say they should not be required to take credit cards.<sup>67</sup>

TfL will finally require all black taxis to take cards from 31 October. But because of resistance by the trade, this is up to 18 months later than was originally proposed. There remains some doubt whether all cabs will be ready to take cards by the 31st. And in recent weeks full implementation, with devices actually fitted in the passenger compartment, has been further delayed, to January 2017 (between November and January, drivers will be permitted to take payments through a "handheld device or mobile solution").<sup>68</sup>

Even after January, the card payment devices will not be directly linked to the meter. The payment process will still be more complicated than it need be, and more complicated than Uber's. All this has cost black cabs valuable time and business.

There remains, incredibly, significant resistance to cards from parts of the trade: one of the clearest examples of the disproportionate power of a small minority of highly conservative drivers, see below. The United Cabbies group claims that accepting credit cards is "not in the interests of the trade."<sup>69</sup> Other cabbies are crowdfunding to take legal action against TfL over the issue (though in an encouraging sign of where sentiment in the trade as a whole stands, they raised less than a quarter of the amount they sought by their self-imposed deadline).<sup>70</sup> How can it be sensible to oppose something demanded by almost all your customers, and offered as standard by your major competitor?

#### Extending Uber-like apps to the black cab trade

Credit cards are really only the first base in matching Uber on convenience. 69% of customers also make clear in surveys that they want licensed taxis to use smartphone apps.<sup>71</sup> Of course, there are black taxi apps, and they have been around longer than Uber. Indeed, many black cabs were at the forefront of adopting technology. As Andrew Pinnington, chief executive of one of them, Hailo, has said: "Cabbies began using tech before companies like Uber even existed."<sup>72</sup>

But in a prime example of the "balkanisation" that harms the trade, there are currently five main black cab apps in London – Gett, Hailo, Radio Taxis, ComCab and Dial-a-Cab.<sup>73</sup> Other services, such as Open Street Cab, compare black cabs with Uber and private hire. They work in slightly different ways. And thousands of black taxis are not on any of them.

Even for those black taxis which are on apps, there have been changes of allegiance which are confusing and difficult for ordinary passengers to keep track of. Hailo was the early market leader, then took on private hire vehicles as well, triggering mass defections (and the vandalism of its offices) by black cabbies.<sup>74</sup> Now it has switched back to covering black cabs only and been taken over by Daimler.<sup>75</sup>

Gett has become the largest black taxi app. By later this year, subject to a merger deal with Radio Taxis going through, it says it will cover 11,500 licensed London cabs.<sup>76</sup> But this is still only about half the total. The LTDA estimates that 8,500 black cabs, more than a third of the total, do not work with any app.<sup>77</sup>



The Arro app, a key component of "Chicabs," the universal taxi app mandated by the City of Chicago for its licensed cabs. In a world first, all traditional taxis in Chicago must join either Arro, another app called Curb, or both. A similar universal app is recommended for London black cabs.

> What the London licensed taxi trade needs is a universal, understandable, easily-usable Uber-like app of its own that covers all 22,500 black taxis. Again, it is hard to understand why cabbies would not want to add this to their toolbox.

Participation in the app would be compulsory. But all cabbies would, of course, remain their own proprietors and decide when and how they worked. They would be free to turn down jobs offered them by the app. They could still be hailed in the street, hired from a rank, or called by telephone in the traditional ways, and would remain free to accept cash payments. A universal app would give black cabbies more ways of finding customers than anyone else in the business.

The US city of Chicago has recently launched Chicabs, which it believes is the world's first universal licensed taxi app.<sup>78</sup> Crucially, all Chicago taxis are required to use one (or both) of two approved apps, Curb or Arro. Passengers can now see all Chicago taxis on the apps and use them in much the same convenient, cash-free way as they use Uber.

Chicabs was only launched in February, too early to assess its success, but it

has been welcomed by the local cab drivers' union, whose spokesman, David Kreisman, called it "a tool badly needed by cab drivers," though, as Kreisman noted, it would not on its own level the playing field.<sup>79</sup>

In New York, yellow cabs have benefited from Arro, an app connected not to their smartphones but to their credit-card terminals, which have been compulsory in the city since 2010. Universal coverage was expected by the turn of the year – giving a larger pool of vehicles than Uber. One of Arro's key selling points is that unlike Uber it does not impose "surge pricing" at rush hour or other times of high demand. Media reports suggest that when yellow taxis using the Arro system are competitive with Uber on promptness and price, passengers prefer them to Uber.<sup>80</sup>

• We recommend the introduction as soon as possible of a Chicago-style universal cab app, offering full Uber-like features (at black cab rates). All licensed taxis should be required to take part.

#### The new app could offer cabbies more control over their own trade and cut TfL's influence in their lives – if they can get their acts together

The way the new app works would be similar to Uber – but the people in charge would be quite different. It would be operated in the interests of the licensed trade by an impartial, non-commercial body. The trade's individualistic, Balkanised nature and its inability to agree means that the new app may have to be created by TfL so it can get going quickly.

But if and when the trade can agree on how to run it, control should be passed away from TfL to the cabbies themselves, perhaps through a co-operative or mutual, or to some other body that cabbies trust more than TfL. That would also achieve many cabbies' fervent wish – to reduce TfL's control over them.

• There will be start-up and ongoing running costs associated with such a system. We recommend that as in Chicago, TfL should fund at least the startup costs and probably the running costs for the first few years in order to ensure that cabbies can join swiftly.

# Like taking payment by credit card, the new app will cost cabbies some money, but will compensate by generating more business

Particularly after the first few years, drivers may have to pay the central costs associated with the system – though these will, of course, be nowhere near the 20–30 per cent that Uber charges its drivers. Based on experience in Chicago, we believe they could be around 2–3 per cent. There is potentially also a lower likelihood of tips of any kind, though the app could be designed to include these. If cabbies' earnings are less cash-based, they will become more transparent to the tax authorities.

However, the increased convenience of the app should result in more trade, or at the very least help protect the trade which now exists.

## It may be the meter, rather than the Knowledge, which ends up the anachronism

London black cab fares are complicated, unpredictable and lack transparency. They depend on four factors: the distance travelled, the time spent waiting in traffic, the time of day, and whether your journey is shorter or longer than six miles.

What this means is that like the tidal range of the Thames, the range of a London licensed taxi fare – especially for longer journeys – is among the greatest in the world and a black cab journey can end up costing far more than you expect. Currently the fare from Heathrow to central London can run from £46 to £87<sup>81</sup> (in practice, more than £100 in traffic) – the top of the range being around double the bottom.

If a customer did not know whether he was going to pay £46 or £87 for a shirt until after he bought it, he would be unlikely to go to the shop. And if his literally first experience of London after landing in the country is a £100 taxi fare, not many new arrivals – in this city of new arrivals – will look favourably on black taxis in future. "Meter anxiety" – sitting in the back watching the price tick up – is a deterrent to black cab users. Surveys show that almost half of black cab passengers want fixed fares.<sup>82</sup> Uber for the most part doesn't offer fixed fares either, of course. But, as will be seen from the table quoted earlier in this chapter, its fares generally are more predictable and fall within a smaller range than those of black cabs.

Many other cities – including New York, Rome and Tokyo – already operate compulsory fixed taxi fares from one or more of their main airports to the city centre. The fixed fare from JFK airport into Manhattan is \$52.80 (about £40)<sup>83</sup> – less than half of what it could cost you in London, for about the same distance. There is a \$4.50 (£3.45) surcharge in the evening rush hour. Depending on the route chosen, tolls may add a further \$8 (£6.20).

London, too, has fixed fare schemes, though ours are voluntary, tend to involve taxi-sharing, and are almost unknown and unused. One operates at peak times from Paddington Station to six zones in central London.<sup>84</sup> Others operate during the Wimbledon tennis tournament. A fixed-price black taxi shuttle from the ground to two local stations is described as "successful" but fixed-price schemes from the club to other parts of London have been "less successful," with "complaints about passengers either being overcharged or refused."<sup>85</sup>

A proposal for fixed fares from Heathrow produced the following classic response from the trade: "The London Cab Drivers' Club, LTDA and Unite [union] objected strongly to fixed fares at Heathrow Airport. They stated that passengers requiring fixed fares have other modes of transport available to them."<sup>86</sup>

Indeed! That is precisely why, particularly for longer journeys, we need to consider moving away from a fully-metered model and towards a selective fixed fare or "guaranteed maximum fare" model, where the fare is known to the passenger before he or she commits.

• We recommend that fixed fares become mandatory for all rides from Heathrow to central London. Because of the size of central London, it will be reasonable to divide it into two or three zones, depending on how far they are from the airport, so someone going from Heathrow to Aldgate would still pay more than someone going from Heathrow to Kensington.

#### "Guaranteed maximum fares" and promotional fares

Taxi drivers can already choose to charge fixed fares for any journey – or any fare they want, so long as it is not more than the one shown on the meter. Some of the black taxi apps, including Gett, have very recently started using this leeway to offer "guaranteed maximum fares" in London. A fare is quoted by the app before the customer books the ride and if the meter fare is higher, only the guaranteed fare is charged.<sup>87</sup>

This looks extremely interesting and should be watched carefully. It should also be – at the very least – an option in the universal black taxi app to be provided by TfL. Drivers could choose whether or not to accept it, depending on how business was.

The trade has already tried some potentially interesting promotional prices, such as flat £5 and £10 fares in parts of central London at off-peak times. These haven't been sufficiently promoted and they are not well enough known to customers. The app would be an ideal means of promoting these to cabbies and customers, and giving drivers more of an incentive to take part. The marketing campaign suggested below would promote these discount fares to non-customers.

• We recommend that there be a concerted attempt to develop attractive promotional fares in conjunction with the new director of black taxi marketing (see below).

#### Fares for night journeys are too high

In January 2001, a six-mile journey by black cab at 11pm cost at least £11.10 before tips.<sup>88</sup> Today, the same journey will cost at least £25.60,<sup>89</sup> a rise of 131 per cent. TfL's website says it will cost between £29 and £34, a rise of up to 206 per cent.<sup>90</sup>

Over the same period, inflation has risen by 50 per cent and a typical six-mile Tube journey at 11pm, of the sort that many black cab passengers would make – from central London to a destination in zone 2 – has risen by 26 per cent, from  $\pounds$ 1.90 to  $\pounds$ 2.40.<sup>91</sup>

How much does a six-mile UberX ride at this time cost? The app estimates  $\pounds 13-17$ , as little as half the black taxi fare. Even when the company's surge pricing applies, it will still in most cases be cheaper than a black cab at night.

The cab service can justify a premium over Uber. But it cannot justify a premium of up to 100 per cent. The service is better, but it's not twice as good.

The cab service can justify a premium over Uber. But it cannot justify a premium of up to 100 per cent over Uber. The service is better, but it's not twice as good. Passenger surveys show dissatisfaction with the black taxi service is higher at night than during the day Passenger surveys show dissatisfaction with the black taxi service is higher at night than during the day.<sup>92</sup> Remarkably, even 48 per cent of black cab drivers who responded to TfL's latest fares consultation thought night fares were too high.<sup>93</sup>

There are three main black cab tariffs. Tariff 1, the lowest, currently operates between 5am and 8pm on weekdays. There is a shoulder tariff, Tariff 2, for journeys between

8 and 10pm on weekdays, and between 5am and 10pm at weekends. This is 20-25 per cent higher than Tariff 1.<sup>94</sup> Tariff 3, which applies between 10pm and 5am every night, is 45–60 per cent higher than Tariff 1.<sup>95</sup>

London is almost the only city in the world where there is such a big difference between daytime and night-time cab fares (New York, for instance, has a flat 50 cent, 38p, surcharge for evening and night journeys). According to Uber, its busiest time in London is "when the bars close."<sup>96</sup> At that same time, the streets of the West End are full of black taxis driving round with their yellow lights on, very visible symbols of how they have priced themselves out of the market.

#### The night rates were conceived in a different world. In the new world, they risk contaminating users' view of the entire trade

The night rate was introduced in response to a problem which largely no longer exists – the transport shortage in the West End at night. Until 2001, evening journeys – until midnight – only cost 60p more than daytime ones. Night journeys cost 90p more. But it was notoriously difficult to find a cab. The LTDA complained that the rates did not give them "sufficient incentive" to work anti-social hours.<sup>97</sup>

As a supporter of organised producer interests rather than consumer interests, the then mayor, Ken Livingstone, agreed with the LTDA. He introduced three-tier

pricing with an immediate increase of up to a quarter at weekends and up to 60 per cent at night. Even at the time, and even in many parts of the trade itself, it was regarded as counterproductive. Many individual cabbies and two of the main black taxi operators, Dial-a-Cab and Radio Taxis, were opposed.<sup>98</sup> Passengers were understandably furious – "it's like a tax for living in London," complained one.<sup>99</sup> In partial recognition that the increase had been too high, the weekend "middle" tariff, Tariff 2, was in 2003 extended to cover the period between 8 and 10pm on weekdays.

Since 2001, it is not just the rise of Uber that has changed the equation at night. The night bus network has expanded dramatically. The Night Tube has started. If black cabs continue to charge the same fares as now, they have little future after dark.

Should this matter? Perhaps black taxis should be happy to give up the nights to Uber? That depends on whether cabbies want their service to be a part-time one, and to cede half the hours on the clock to their rivals. Even though most use of black cabs is during the day, the night rate contributes to the widespread perception of licensed taxis as overpriced, particularly since journeys at night tend to be longer. Many new or occasional users will take their first black cab at night or at the weekend – and decide never to use one again.

• We recommend that Tariff 3 be abolished. All hires between 8pm and 5am, and at weekends, should be on Tariff 2. Consideration should also be given to abolishing Tariff 2 and returning to the flat evening and night surcharges.

#### Fares for long journeys are also too high

On any journey over six miles, at any time of day, yet another tariff, known as Tariff 4, kicks in at the six-mile point (it often used to kick in even before that, but this has now been changed). Tariff 4 is 42 per cent higher per mile than Tariff 1,<sup>100</sup> meaning that longer journeys are also overpriced.

The six-mile threshold was set because cabbies were at one time entitled to refuse any hire of more than six miles, the so-called "compellable distance." The idea was to reward them for accepting journeys longer than this. However, the compellable distance has been 12 miles for several years now.

• We recommend that Tariff 4 should apply only for journeys over 12 miles, the actual "compellable distance," and that ultimately it should be eliminated altogether.

## The way annual fare increases are calculated (both day and night) produces excessive rises

By the time Ken Livingstone left office there had been nine increases in black cab fares in eight years, nearly all of them above inflation.<sup>101</sup>

April 2001	5.5%
Nov 2001	up to 60% after 8pm, 25% weekends
July 2002	4.8%
April 2003	2.25% with new lower mid-evening rate between 8–10pm
April 2004	3.4%
April 2005	5.6%
April 2006	3.7%
April 2007	3.2%
April 2008	4.7%

The record under Boris Johnson has been better but still above inflation overall.

April 2009	3.4%	
April 2010	2.3%	
April 2011	2.7%	
April 2012	5.3%	
April 2013	1.7%	
April 2014	0.7%	
April 2015	nil	
April 2016	1.6%	

Each year's fare rise is calculated using something called the "cost index," a weighted basket of elements (fuel, insurance, servicing, and so on) which has existed since 1981.

However, less than 40% of the index is actually based on the cost of running a black cab and only 9.5% is based on the biggest cost of running a cab, the price of fuel. 5.5% of the index is based on the costs of doing the Knowledge – even if you took the exam 40 years ago – and 2.8% is based on unspecified "social costs," presumably not the cost of socialising with other cabbies.

The single biggest element in the entire "cost index," 60.3%, is made up of a number reflecting UK average earnings. Although black taxi drivers' incomes are well above average, the idea is that cab fares should still increase in line with average earnings.<sup>102</sup>

All this explains why, after a year when the price of fuel went down by more than 15 per cent, and CPI inflation was nil or virtually nil, London black cab fares still went up by 1.6 per cent this April. (TfL's initial proposal, incidentally, was for a 0.8% rise, but this ended up being doubled.)

Raising fares by substantially more than inflation at a time when the trade faces such challenges is wrong. The costs of running a cab will change completely for the new generation of zero-emission capable cabs entering service from later this year and this offers the opportunity for radical reform.

A comprehensive TfL review of cab fares, including tariffs and the cost index, was to have been published this summer but has not appeared. The Mayor's taxi and private hire action plan, published last month, commits only "reviewing the annual taxi fares process to ensure drivers and customers get the best deal,"<sup>103</sup> which seems to us to place drivers and customers in the wrong order.

- TfL's review must be completed and published as planned. It must recognise that in the new world the interests of drivers can only be safeguarded in the medium and long term by placing the interests of customers first.
- We recommend that the cost index in its current form be abolished and replaced with one which reflects the actual costs of running a black cab. If costs fall, fares should fall too, or at the very least be frozen.

### Apps open up significant opportunities for black cabs in the suburbs

The licensed taxi may be an icon of London, but in most of London it is barely visible. One of Uber's competitive advantages over the black cab is that it serves more of the London where most people actually live. Only 7 per cent of black

cab journeys take place wholly within the 22 outer London boroughs; a further 19 per cent are journeys from inner London to outer London, or vice-versa (many of these to and from Heathrow); 74 per cent of black cab journeys take place wholly within the 10 inner London boroughs.<sup>104</sup>

Clearly, black taxis' traditional means of finding passengers, cruising the streets, is less viable in less densely populated and suburban areas. But the adoption of apps should make it easier for them to connect with suburban customers and could represent a very significant business opportunity if they wished to seize it. The population of the suburbs is growing very fast, faster than inner London, and some suburbs now have almost inner-city densities. Property prices are driving middle-class, taxi-using customers further into outer London. TfL also expects the Night Tube to generate "greater demand for taxis in suburban areas"<sup>105</sup> and is expanding rank capacity at suburban Tube stations.

About 3,500 of London's 25,000 licensed taxi drivers are holders of suburban-only licences, known as the "yellow badge," for which the barriers to entry are significantly lower than the all-London Knowledge.<sup>106</sup> They can choose to be examined on one (or more) of nine suburban sectors, each covering between one and four outer London boroughs. They can accept hires within their licensed sector(s) and from them to any other point, but not pick up passengers outside them. They can also pick up passengers at a few "island" ranks in inner London, such as Finsbury Park and Putney stations.

On average it takes two years to get a yellow badge, about half the time for the full all-London Knowledge but still significantly more than a PHV licence.<sup>107</sup> Specifications and standards of vehicle are the same as for all-London drivers. If apps are embraced by suburban drivers, an expansion of the number of yellow badge licensees could offer a "gateway" into taxi-driving and a potential for the expansion of the trade. However, moves to simplify the suburban licencing system (by reducing the number of sectors to four), though supported by suburban drivers, were opposed by all-London drivers and fell through, an example of the lack of common purpose that can hamper the trade.

• The number of suburban sectors should be reduced to four as a starting point to allow a more flexible suburban trade to exploit the potentially wide opportunities opened up by apps in the suburbs.

#### Cab ranks are becoming increasingly important

Only black cabs can rank. Having been relatively unimportant in the past, apart from those at main railway stations, ranks are starting to become "massively important" for the trade, particularly in the West End at night, according to the LTDA's Steve McNamara. Ranks have been established outside popular clubs and restaurants which serve high-rolling customers and the trade's experience, says McNamara, is that if such patrons can walk out and immediately see a cab with its light on, they will get in it.<sup>108</sup> TfL has promised to "pursue" a 20 per cent increase in ranks (by number of ranks, not capacity) by 2020,<sup>109</sup> an ambition reiterated in the Mayor's recent taxi action plan. 32 new ranks were delivered in the year to April 2016 and 18 are planned, or have been delivered, this year.<sup>110</sup> TfL will need to work together with local authorities, particularly Westminster City Council, to ensure that the ranks are in the places needed.

• We recommend that the number of ranks be expanded more vigorously, and enforcement efforts increased to keep them clear of PHVs or unlicensed

vehicles. Westminster City Council, in particular, will need to cooperate with TfL to deliver a larger number of ranks.

#### The London taxi's environmental performance is poor. An imminent new generation of eco-friendly black cabs could be transformative, but could go wrong

Next year, the last-ever London black cabs as we know them – diesel-fuelled TX4-series vehicles – will roll off the production line. Within 15 months, all new cabs will be one of two entirely new, eco-friendly models. And within a few years of that, the black cab's environmental performance could go from one of its greatest weaknesses to one of its greatest strengths – reshaping its economics and giving it a competitive advantage over Uber. But the transition must be exceptionally carefully managed.

The licensed taxi fleet is significantly more polluting, per vehicle, than Uber's, which has a higher proportion of hybrids and more efficient diesels. By 2020, black taxis are forecast to contribute 18% of NOx emissions in central London, against only 4% for private hire vehicles.<sup>111</sup>



After 2020, however, all that should change. From January 2018, all new black cabs operating in the central London congestion charge zone will have to be zero-emission capable (ZEC).<sup>112</sup> This means that they must be either pure electric, or hybrid, and capable of running with zero emissions from the tailpipe for all or part of the time, with a minimum zero-emission range of 30 miles. If the vehicle has an internal combustion engine as part of a hybrid system, it must be a petrol engine.<sup>113</sup> Existing, diesel black cabs which have been licensed by 31 December 2017 can continue to operate until they are 15 years old, as now.

Two manufacturers will be offering new zero-emission capable black cabs. Reassuringly, both maintain the iconic form of the classic London taxi. The London Taxi Company (LTC), makers of the TX-series cabs, is developing the new hybrid TX5, to be built in Coventry. It represents a £300 million investment by the company<sup>114</sup> and is due to be launched at "the end of 2017,"<sup>115</sup> only just in time for the changeover.

The new Metrocab plug-in electric taxi, on sale from late this year, the second of the two models competing to meet the "zero-emission capable" requirements to be placed on all new London black cabs from 2018. The rival Metrocab design, also to be built in Coventry, is a plug-in electric taxi. Unlike the old, square MCW Metrocab that plied London's roads in the 1990s and after, the new Metrocab from Fraser-Nash boasts a traditional round shape that is strongly reminiscent of the classic TX-series (so much so that LTC took the company to court, claiming, unsuccessfully, that it was a "substantial copy" of their own design). A few prototypes are already in service and Metrocab says that production models will become "readily available by 2017."<sup>116</sup>

Both vehicles are a major vote of confidence in the black cab's future. They also promise to improve the economics of the trade, claiming substantially lower running costs, as you would expect from alternative fuels, and the same or similar purchase price, once government grants for green vehicles are added in.

But much will depend on their on-the-road performance, ride comfort, passenger reactions and on whether the promised cost savings materialise. Such things cannot yet be assessed because production models of the vehicles, particularly the TX5, have been slow to emerge in public. A static prototype of the TX5 has been shown to journalists, but there appears to be no published record of any outsider being allowed to ride in it. A ride promised to the authors of this pamphlet in February was cancelled and despite repeated requests has never been rearranged; it is not clear whether any TfL officials have ridden in one either. They had not done so by the end of May.<sup>117</sup>

By 2020, it is intended that London will have 9,000 zero-emission capable black taxis.<sup>118</sup> Since there are virtually none at the moment, with only four years to go, achieving this will require significant effort by TfL and the trade. There is to be a £65 million TfL and Office of Low Emission Vehicles fund to assist with the early decommissioning of older black cabs, before they reach the present 15-year age limit; and there will also be grants to cabbies for the purchase of zero-emission capable cabs.<sup>119</sup>

The arrival of a fleet which is new, efficient, modern, green – but critically, still identifiable as the iconic London taxi – may improve the image, as well as the economics, of the licensed trade. But tightened environmental regulation also presents challenges. The requirements for black cabs are tougher than for their competitors in the private hire sector, arguably reflecting their greater contribution to emissions. Nevertheless, it understandably seems unfair to many cabbies that new PHVs need not be zero-emission capable until 2020 and their zero-emission range requirements are less onerous than the cabs': between 10 and 20 miles.

Later, perhaps, the new rules could work to the black cabs' advantage. The age limit for legacy PHVs is 10 years, against 15 for the black cabs, and even a 10-mile zero-emission rule disbars many existing hybrid minicabs, including some models of the Prius, which have a lesser range.

Yet it is of critical importance that TfL support the black cab trade to the greatest possible extent in the transition. This should include sufficient grants to ensure that the trade is not disadvantaged and also a concerted effort to instal enough rapid charging points to enable the fleet to operate effectively. Currently the plan is for 300,<sup>120</sup> which may well not be enough. Uber has objected to the £65 million fund, claiming it gives the black cabs an unfair advantage, but it seems justified given the earlier and tougher environmental requirements being placed on the black cab trade.

• We recommend that the grant programme be sufficient – expanded, if necessary – to ensure that the trade is supported to become completely zero emission capable as soon as possible. TfL must also install a substantial network of rapid charging points.

## Cabbies can profit from offering "added-value" services, such as tours

Very few people know London as well as a black cabbie, and very few people, as the appended article by Jody Rosen's Appendix describes, are so immersed in its history and its quirks. Cabbies are ideally placed to design and offer a vast variety of cab tours, perhaps in conjunction with our proposed new "Ambassador of London" qualification above. Consideration should also be given to providing courier services in a more systematic way, again perhaps through an app.

## Part of the cab trade's professionalism is ensuring it operates to the highest standards of accountability

About 2,500 complaints were received about London black cabs in the last year for which figures are available (2012). That is a low number given the number of taxi journeys made, and a reflection of the quality of the service. But few, if any, black taxi drivers' licences were suspended or revoked that year.<sup>121</sup> As an elite and premium service, black taxis should uphold and be held accountable to the standards which they are famous for. Licences should be suspended or revoked where appropriate.

#### Marketing is a major weakness for the black cab

The black cabs need to compete with Uber on marketing and advertising – as well as raising awareness of their new app, night fares and promotional products, they might, for instance, make something of their Londonness, and mock Uber's slightly creepy Californian touchy-feely patter.

• If the app and fare changes we suggest are adopted, we recommend that TfL appoint of a director of marketing for black cabs. The director of marketing would devise promotions and run substantial advertising campaigns to encourage people to use licensed taxis. The first phase should be funded by TfL but if the cabbies can get their collective act together they should eventually take over control and funding of such campaigns.

#### TfL has mishandled its relationship with the trade

TfL is too often a bad communicator and it has notably failed to maintain a good relationship with the black cab trade since taking over taxi licensing and enforcement from the Metropolitan Police in 2000. An effective breakdown in relations occurred in 2013–14 between TfL senior management and the trade. This breakdown was somewhat repaired by City Hall, but a legacy of mistrust lingers.

Like cyclists, the cabbies need a dedicated advocate in the mayor's office. Representatives on the TfL board are not enough; because of board conflict of interest rules, bizarrely enough, they cannot actually speak on their own areas of interest. There is a culture clash between straight-talking cabbies and a politically-correct TfL. The cabbies are right to suspect that high officials at TfL do not really like them or sympathise with them (though there is blame on both sides, as discussed below).

It has been suggested that the regulation of cabs be returned to the Metropolitan Police, as it was before TfL's establishment in 2000. We can see the attractions of this. There would be less of a culture clash; police officers and staff might also carry more weight than TfL staff. However, the Met has stated that it does not wish to resume this role or to see shrinking police resources devoted to The new London Taxi Company hybrid TX5, is Wi-Fi enabled, has USB charge points and a panoramic glass roof – ideal for tours of the city.



what it views as "non-core" work.<sup>122</sup> The workload for the Met would be greater than before, since it never regulated private hire vehicles; they were entirely unregulated in London until 2004. Taxis are undeniably part of the transport network and there is a logical case for their regulation by TfL.

TfL is more directly controllable by City Hall than the Met, meaning that mayoral officials can (and do, as in recent years) take a role in building bridges between TfL and the trade. Finally, as we will see in the next chapter, Uber wishes to end most minicab and taxi regulation and has the support of powerful figures in government to do so. Any move to change the system of regulation would require legislation and could give it the opportunity to achieve its wishes.

- We recommend that TfL retain responsibility for regulating the trade but take concrete steps to understand and improve relations with the black cab trade.
- To that end, we recommend that a senior manager in TfL be appointed to run the cab operation and that a taxi commissioner be appointed in the Mayor's office. Ideally one or both of these positions should go to former cabdrivers in order to address what cabbies rightly perceive as a lack of sympathy towards them at TfL. However, for cabbies, the key to reducing TfL's role in their lives is getting their own act together collectively.

## Black cabbies' lobbying has sometimes been counterproductive

In the relationship between cabbies and TfL, and government generally, there is fault on both sides. The pride, confidence and strong culture of the London black taxi trade is far more an asset than a weakness. But elements of that culture play into the hands of their enemies. A minority is making it only too easy for the likes of Uber to paint the trade as aggressively conservative and opposed to all change.

Cabbies are individualists but this means the licensed trade is balkanized. It is split into factions which impede effective lobbying and make it easier for the trade's enemies to defeat it.

The largest trade association, the LTDA, claims 10,800 members, less than half of the 25,000 drivers. A variety of other bodies – the RMT trade union, the London Cab Drivers' Club (LCDC) and the United Cabbies Group (UCG) – represent a further 1,500 to 3,000 members, depending on whom you ask.

The tone and content of cab-driver lobbying is disproportionately influenced by a small minority of highly conservative cabbies who believe the way to win is by blocking roads, shouting at politicians, opposing any change to the way they work now and making unrealistic demands that Uber be banned.

The LTDA's Steve McNamara says: "There is a very vociferous minority who do not represent the trade. They're particularly big on social media."<sup>123</sup> Boris Johnson, when mayor of London, said: "The level of abuse of individual officers in TfL is quite severe. That is not conducive to good relations between TfL and the black cab trade and sometimes there is a level of personal vituperation against individuals that I think is unfair."<sup>124</sup>

Such behaviour alienates potential customers and politicians. It makes it much easier for Uber to paint all cabbies as failing reactionaries who need propping up and, by contrast, to market themselves as the progressive, modern choice.

A purported brief from Uber's PR agency, leaked to a blog, appears to suggest that such tactics do play into Uber's hands. The document quotes the agency as saying that it "helped create a marketing plan [for Uber] which mocked black taxi drivers in a tongue in cheek manner for fighting technological progress and being self-interested."<sup>125</sup> The agency named, Portland Communications, denied the document came from it.

Uber claimed to have experienced an 850 per cent increase in new users on one day when black cabbies were blocking Whitehall.<sup>126</sup> Even one MP who should have been sympathetic, Labour's Ian Austin, tweeted: "Taken 2.5 hours to get from Victoria to Westminster thanks to black cabs demo. How do I sign up for @Uber so I never have to use one again?"<sup>127</sup> On another occasion, protesting cabdrivers interrupted a session of the London Assembly and knocked out a member of City Hall staff.<sup>128</sup>

The UCG is opposed to even modest change, such as requiring black cabs to accept credit cards.<sup>129</sup> Their slogan has been "No retreat. No surrender"<sup>130</sup> and their explicit demand has been that the licensed trade be enabled to carry on precisely as it always has.

Even the LTDA has wasted time and effort in court trying to get Uber banned on legal technicalities;<sup>131</sup> even if it had succeeded, Uber would probably have been able to devise some sort of work-around.

The trade suffers from a paradox. It is fragmented; yet everything any cabbie does reflects on the trade as a whole. It is hard to get cabbies to agree about things and it may be hard to get them to agree to the short-term sacrifices described above in order to secure the long-term future of the profession.

Several times in the past, cabbies and their representatives have made choices that benefited them individually in the short term – such as pressing for vastly higher fares at night, or the licensing of the inferior but cheaper Mercedes Vito vans<sup>132</sup> – but undermined them collectively in the long term.

Cabbies need to choose their battles more carefully. It sometimes feels like they oppose all change. The trade needs to ask itself why the tragedy of its potential disappearance has not caused more of a public outcry.

The trade – or TfL, if the trade cannot do so – must come up with a better way for the cab trade to make decisions and express its views, perhaps some kind of secure online forum with a voting or polling system. If the cabbies can get this right and can make their own decisions in their enlightened self-interest – if they could take control of the new universal booking app, for instance – it opens up the possibility of a wholly new relationship where they, rather than TfL, can take the reins.

The age profile of the profession may also discourage change, with 40 per cent of drivers aged over 55 and only five percent under 35. Perhaps the voting system

could be weighted towards younger drivers, since they have the greatest interest in the trade's long-term survival.

Isabel Dedring, Boris Johnson's former deputy mayor for transport, agrees with Steve McNamara of LTDA that the vast majority of cabbies understand the need for modest change. She makes an analogy with the adoption of helmets by American football players. Most players wanted to wear helmets. But when this was voluntary, and opposed by a noisy minority, many players did not wish to break ranks. Once the game's authorities moved to make helmets compulsory, players adopted them gladly.<sup>133</sup>



"Taken 2.5 hours to get from Victoria to Westminster thanks to black cabs demo. How do I sign up for @Uber so I never have to use one again?" Protesting cabbies block Whitehall in a demonstration against TfL.

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## 04

# Why Uber is not always good for consumers

Uber is a phenomenon. In less than five years, it has gone from a few hundred drivers in one city to 160,000, serving 527 cities in 77 countries.<sup>134</sup> On Christmas Eve 2015, a man called Marvin, taking a £5 ride from London Fields to Hoxton, became Uber's billionth passenger.<sup>135</sup>

For the kind of people who travel from London Fields to Hoxton, Uber has become almost a badge of identity. But for millions more, too, it is a hugely popular service.<sup>136</sup> Uber hasn't somehow cheated its way to this position, as some cabbies may think – though, as we will see, some of its behaviour has not been fair or good. Uber is popular because it offers things people want, like and cannot always get from traditional cabs.

In extensive interviews with Policy Exchange, Uber passengers said that yes, they liked it because it was cheaper. But actually, during the day at least, it isn't always that much cheaper. They like it for other reasons too. It has far better coverage in most suburbs than black cabs. They know when their ride will arrive. They know (within a relatively narrow range) how much the journey will cost before they commit to it. No cash has to change hands. Younger people don't carry much cash. They live their lives on their phones. It fits with their lives.<sup>137</sup> For others, working for Uber can fit with their lives.

But there are costs, as well as benefits, from the rise of e-hailing. In the next chapter, we will show how society as a whole – including large numbers of people who cannot afford to travel by any kind of taxi – bears those costs. We will also describe the more complicated reality behind Uber's rhetoric of driver empowerment, which is really a form of corporate Big Brotherhood. In this chapter, we show how Uber's unluckier customers also risk personally bearing some of those costs.

#### Uber and passenger safety

In a 2014 statement on Uber's website, the compay's London director, Jo Bertram, described her company's drivers as "the safest, most reliable transportation providers in this great city." The statement has since been removed from the website and is clearly untrue. Uber is not unsafe, but nor does it come close to being the safest form of transport in London.

In the capital, private hire vehicles and cabs are more dangerous, in terms of casualties per journey, than any other form of transport except cycling and motorcycling. The tables for casualties involving each type of vehicle in the latest available calendar year, 2014, are shown below. The vast majority will, of course, be minor.

Mode	Casualties <sup>138</sup>	Journeys (m) <sup>139</sup>	Casualties per million journeys
Bus/coach	1,579	2445.5	0.65
Tube	3,908	1277.5	3.06
Car	11,803	3650	3.23
PHV/taxi	641	146	4.39
Bicycle	5,146	219	23.5
Motorbike	5,233	73	71.68

### The rise of Uber has coincided with a significant rise in the number of taxi/PHV accidents

There has been a 44 per cent rise in taxi/PHV casualties in London since Uber started full operations, with its main UberX product, in early July 2013.

The number of accidents in the year to June 30 2013 was 530. By September 2015, the latest available figure, there had been 763 accidents in the preceding 12 months.<sup>140</sup>

The accident rate appears to be accelerating. The quarter-on-quarter comparison between the third quarter of 2015 and the third quarter of 2014 shows a 39 per cent rise in casualties in that single year alone.<sup>141</sup>

The year to September 2015 accident rate is 102 per cent above the 2005–9 average, according to TfL.<sup>142</sup>

The figures lump both black taxi and PHV accidents together. However, it appears likely that this very substantial rise is due more to PHVs than to black taxis.

The number of black cabs in London has not changed substantially since 2005–9. The number of private hire vehicles has risen by about 40 per cent.<sup>143</sup>

Yet the accident rate is also rising much faster than the number of vehicles is rising. What that suggests is that PHVs, as well as being greater in number, are also being driven less safely, on average, than they were before.

#### Does this mean that Uber is less safe than a black cab?

There is no data specifically on Uber and so definitive conclusions can not be drawn. Of course, large numbers of private hire vehicles in London do not drive for Uber. There are also clear reasons for supposing that Uber is safer than, say, a local high street minicab company: the accountability provided by the app and the driver-passenger rating system.

Nonetheless, the company is the main player in the PHV market; is the main new feature of that market in the period that accident numbers have risen; and is mainly responsible for the growth in PHV numbers that there has been.

More generally, an autumn 2014 survey by ComRes for the London Assembly showed that Londoners feel less safe in private hire vehicles generally (where only 50% felt safe) than in black cabs (where 69% felt safe).

TfL does not break down its statistics between black cabs and private hire vehicles, or by the company concerned.

• We recommend that TfL statistics on accidents should break down black cabs and PHVs – at present they are usually lumped together. For PHV firms, including Uber, the identity of the operator should be given in each case.

#### Sex crime is more of a problem with private hire vehicles than with any other form of transport

To the risk of being in a road accident must be added the further risk of becoming a victim of crime. PHV passengers are less at risk of general crime than those travelling on the bus or Tube networks.

However, PHV passengers are at far greater risk of suffering some of the most serious crimes, notably sexual offences. There were 684 reported sex crimes on the bus network in 2014/15, one for about every 3.6 million journeys. There were 567 on the Tube and DLR, one for about every 2.4 million journeys.<sup>144</sup>

TfL, controversially, does not publish exact figures for cab-related sex offences. However, in its recent taxi and private hire strategy, it said that there were "over 140" such offences reported in 2014/15,<sup>145</sup> one for about every 1 million journeys (or about every 400,000 journeys taken by a woman).

A significant proportion of cab-related sex crimes involves unlicensed minicabs, operating illegally. But several – as we will show below – do involve Uber drivers. At least two involved (the same) black cab driver.

Statistics – which TfL appears to admit as genuine, if "provisional and unverified" – given to the black cab trade in a private meeting earlier this year, and publicised online, suggest that the overwhelming majority of cab-related sex crimes, 112 out of 115, were committed by PHV drivers, rather than black cab drivers. About half were unlicensed and half licensed.<sup>146</sup>

As well as drivers who have been through a much longer and more stringent qualification process, black cabs have another highly important safety feature which may help explain this large apparent disparity. All cabs are required to have a partition between the driver and the passenger. With Uber and other private hire vehicles, not only is there no partition but sometimes the passenger will set next to the driver.

However, before definitive conclusions can be drawn, TfL needs to be much more transparent in this area.

• We recommend that TfL regularly publish exact figures for taxi-related crime. Just as with the road accident numbers, these figures should be broken down between black cabs and private hire vehicles, and by the company concerned.

## The volume and nature of reported incidents involving passengers travelling in Uber's vehicles is concerning

In the absence of full statistical breakdowns between black cabs, legal private hire, and e-hailing, Policy Exchange did a comprehensive trawl through the Factiva press cuttings database, online search engines and other databases for any reported incidents involving Uber or black cab drivers in London and their passengers between 1 February 2015 and 31 January 2016. The search terms "Uber + driver" and "black cab + driver" and "taxi + driver" were used.

In this period in London, there were two reported incidents involving black cab drivers and 17 involving Uber drivers.

A number of other cases where a driver was acquitted in court are not included. Of course, caution needs to be exercised with this tally. It could be argued that because of Uber's controversy, cases involving its drivers were more likely to be reported by the media. However, the controversy arguably applies between the black cabs and Uber and may therefore render both types of vehicle newsworthy. Despite the limits of the exercise, however, the range and pattern of incidents involving passengers travelling in Uber vehicles is a cause for legitimate concern.

Though the accountability created by Uber's app and driver-passenger rating system are likely to make it safer than, for instance, a local minicab firm, such tools (on this evidence, at least) are much less effective than the safeguards built up over many years by the black cab trade: highly-trained drivers, physically separated from their passengers by a partition.

#### Reported incidents involving black cab drivers

The date shown is the date of the event described, if that can be discerned from the report. If it cannot, it is the date of the report.

- 8 January 2016: Black cab passenger Katherine Boyd complains that her driver was wearing earphones while driving and nearly hit a pedestrian after using his phone to check the football results.<sup>147</sup>
- **30 March 2015:** Black cab driver David Perry jailed for 10 years for sexually assaulting two women passengers.<sup>148</sup>

#### Reported incidents involving Uber drivers

- **21 January 2016:** Uber driver Aliriza Kurt jailed for 18 months after sexually assaulting a woman passenger in May.<sup>149</sup>
- **8 January 2016:** An Uber driver assaulted a resident of Oaks Road, Stanwell, who objected to him and dozens of his colleagues using the quiet residential street as a waiting area to pick up passengers at nearby Heathrow.<sup>150</sup>
- **4 January 2016:** A London Uber driver was suspended after allegedly throwing a lesbian couple out of his car for kissing.<sup>151</sup>
- 19 December 2015: Chelsea Uber passenger Rafael Gomes says that his driver was watching a TV show on his phone throughout the journey as he drove.<sup>152</sup>
- **29 November 2015:** Croydon Uber passenger Taleka White says her driver dragged her out of the car, punched her twice in the face and called her a "black c " after objecting to making more than one drop-off.<sup>153</sup>
- 23 November 2015: The actress Frances Barber complains that her "sharia Uber driver" told her she was "disgustingly dressed" and should not be out at night.<sup>154</sup>
- **5 November 2015:** London Uber driver Samson Haile jailed for sexually assaulting a female passenger.<sup>155</sup>
- November 2015: London Uber passenger Jake Older is charged £748 for a 20-minute journey after the driver's phone "froze."<sup>156</sup>
- September 2015: London Uber passenger Sam Simons said that he and his friend Santiago Figueroa were thrown out of the car after sharing a "peck on the lips," with the driver screaming "Man should not kiss man."<sup>157</sup>
- **5 August 2015:** An Islington Uber driver came to blows with a passenger during a street fight over a clipped wing mirror.<sup>158</sup>
- 10 July 2015: Shoreditch Uber passenger Martin Ahearne had to complete his journey in a black cab after his Uber car knocked down a pedestrian. He was still charged for the Uber journey. The fare was later refunded, but the company refused to refund the cost of the coat he had placed over the victim to keep him warm, saying it was up to the driver's insurance policy.<sup>159</sup>

- **5 July 2015:** An Uber driver left a voicemail for a Hackney passenger threatening to "cut your neck" after she cancelled a ride.<sup>160</sup>
- **3 June 2015:** Kennington Uber passenger Emma Davey left unconscious when her Uber car crashed and flipped over after the driver allegedly fell asleep.<sup>161</sup>
- 27 May 2015: Putney Uber passenger Daisy Riley filmed her Uber driver watching a video while he drove her home, holding the steering wheel in one hand and his phone in the other.<sup>162</sup>
- March 2015: An Uber driver was involved in a brawl in Shaftesbury Avenue. The company said he acted in self-defence.<sup>163</sup>
- March 2015: A London Uber driver offered oral sex to a woman passenger, who said he was "very forward and quite creepy. Asked me if I wanted him to go down on me." Uber offered her a £20 voucher in compensation.<sup>164</sup>
- 8 February 2015: A London Uber driver left a 20-year-old woman by the side of a motorway in Leyton in the early hours following a dispute over the journey. She had to be rescued by police.<sup>165</sup>

### Despite this record, Uber is lobbying for changes which will have the effect of reducing passenger protection

Currently, all private hire drivers in the capital, including Uber's, must be licensed and undergo independent criminal record and basic competence checks, carried out on behalf of TfL.

But in November 2015, Uber's chief strategist (and former campaign manager for Barack Obama) David Plouffe, said in a little-noticed blogpost that the company is seeking a "key change" in licensing requirements, namely "the move from dual licensing, with companies and drivers both needing a licence, to a unified regime, where only companies are licensed and there are no restrictions on the number of people who can drive."<sup>166</sup> He specifically cited London in the post.

The requirement for drivers to be licensed, Plouffe said, had "negative consequences" because "the opportunities to reduce car ownership and therefore congestion over time become fewer... As services like Uber take off – in London, for example, 30,000 new riders sign up each week – the supply of [drivers] needs to keep pace with that demand. If it doesn't, waiting times or prices or both will increase, especially in the outskirts of cities. And people will only give up their cars or reduce personal car usage over time if they are certain to get a ride within minutes when they need one."<sup>167</sup>

City Hall officials confirm that Whitehall civil servants also support this aim, though it would need primary legislation. "The Department for Transport wants to end all regulation of cabdrivers and also to end TfL's role in the cab trade," one official said.<sup>168</sup>

Ending independent driver licensing would leave Uber as the arbiter of who could drive, and its passengers protected only by whatever tests the company chose to perform. In its home city of San Francisco, according to the city's district attorney last August, "systemic failures" in Uber's background checks, which the company had claimed as "best in class" and "industry-leading," failed to pick up convicted sex offenders, identity thieves, burglars, kidnappers and at least one murderer.<sup>169</sup>

A completely unlicensed private hire workforce existed in London until 2004, when full independent licensing of minicab drivers was introduced. In the previous year, 2002–3, there were as many as 55 police investigations into alleged rapes by minicab drivers, according to media reports.<sup>170</sup> In one East London firm, 13 of 32

drivers were found to be driving under false names.<sup>171</sup> In 2002, 214 women were sexually assaulted after getting into illegal minicabs in London.<sup>172</sup>

In his blogpost, Mr Plouffe tried to sell the changes as akin to giving your friend a lift: "At the heart of these new rules [we are seeking] is the belief that one citizen should be free to give another citizen a ride across town." The difference, of course, is that minicab passengers give themselves into the control of a complete stranger, usually a man, for payment. (Uber's claims about driver empowerment are explored in the next chapter.)

Uber is obviously unlikely to employ 214 sex attackers – but if it succeeded in having the regulations scrapped, it would clear the way for smaller, local operators to hire anybody they liked. The capital would move back towards the time when taking a minicab was one of the riskiest everyday things any London woman could do.

## Uber's pay rates for drivers may lead them to drive more dangerously than black cabs

Unlike train, lorry, or bus drivers, there are no controls on how many hours a taxi or PHV driver may work. Black cabbies can earn reasonable money without having to work an excessive number of hours per week – or at least they could do so. But the relatively low wages earned by Uber drivers may encourage them to work dangerously long hours.

As the next chapter explains, Uber's driver pay rates are substantially lower than the company claims. The GMB union claims they are as little as £5.68 an hour, more than a fifth below the minimum wage, after costs and Uber's cut, which has recently been raised from 20 to 25% of the driver's take for new drivers.<sup>173</sup> To make even £20,000 a year on the GMB's alleged hourly rate, an Uber driver would need

Uber's driver pay rates are substantially lower than the company claims. The GMB union claims they are as little as £5.68 an hour, more than a fifth below the minimum wage, after costs and Uber's cut to work 68 hours a week. The legal limit for a bus or coach driver is 56 hours a week and they must take a break at least every four and a half hours.<sup>174</sup>

Uber has a precise picture at all times of exactly how long each of its drivers has been working and how fast s/he is travelling. It could virtually overnight use this to enforce rest breaks, maximum

driving stints, and safe driving speeds. It does not do so in London, though it has started to do so elsewhere.<sup>175</sup> Uber's UK spokesman, Gareth Mead, was asked whether the company "ensured" that drivers took breaks. "We do encourage drivers to," he said. "We tell them that they need to take a break, yes."<sup>176</sup>

In the US, the app appears to do the opposite, explicitly encouraging drivers to keep going longer than they may want. When a driver seeks to stop working and turn off the app, he will sometimes get the message: "Are you sure you want to go offline? Demand is very high in your area. Make more money, don't stop now!"<sup>177</sup> Uber says that it does not send this message to drivers in the UK.<sup>178</sup>

Recent changes have required Uber's workforce to drive for longer in order to maintain their earnings. In November, the cut that Uber takes from each fare was raised by a quarter for new drivers, from 20 to 25 per cent.

## Uber has specifically encouraged London drivers to work 65-hour weeks

Uber has appeared to encourage its drivers to work long hours, in excess of the legal limit for a bus or coach driver. Until recently, its main UK driver recruitment site stated: "Make up to £840 a week. Turn your car into a money machine. Some Uber-Partner drivers have received an average of £3360 a month after Uber service fee." A footnote explains that this figure is "based on average payments of partner-drivers in London who have driven 55–65 hours in November 2015."<sup>179</sup> Uber changed the page after being asked about it by a journalist.

The reference was clearly to 55–65 hours a week, because 55–65 hours a month would give a rate of £61 an hour, or more than £110,000 a year – £148,000 before Uber's service fee was taken off – rather more than even Uber claims its drivers get paid.

Even at Uber's own claimed rate for its London drivers – £16 an hour after its service charge is taken off<sup>180</sup> –a driver would have to work more than 52 hours a week to earn the promised sum of £840.

In New York City, under pressure following press revelations that Uber drivers were working up to 19 hours a day,<sup>181</sup> Uber has recently announced that it will ban drivers if they repeatedly work for more than 12 hours a day. "We want to do our part to ensure that drivers are being safe on our city streets. We will be notifying all driver-partners that it is unsafe to use the Uber app for more than 12 hours at a time," said the company's New York general manager, Josh Mohrer.<sup>182</sup> No such policy has been instituted by Uber London, though it insists it "takes the issue very seriously and regularly discusses driving habits with partners," including sending them messages when they have driven for too long.<sup>183</sup>

- We recommend that as it has already done in New York, Uber should immediately introduce a maximum 12-hour day for drivers, monitor it rigorously, and permanently remove from its platform any who repeatedly exceed it.
- E-hailing services should also require any driver who works more than 60 hours in any consecutive six-day period to then take at least one full 24-hour period off before s/he can resume driving.
- E-hailing services should undertake to monitor driver speeds and remove from their platform any driver who regularly speeds.
- E-hailing services should be obliged to share data on each driver's hours of work with TfL so it can check that drivers are not exceeding safe hours, either with one operator or by working, say, 12 hours for one operator then a further 5 hours for a second operator.
- All these requirements should be imposed on all operators as conditions of their operator's licences being renewed (in Uber's case in 2017), using Mayoral powers under the Private Hire Vehicles (London) Act 1998.

## Uber drivers do go through the same vetting as black cab drivers. But the Knowledge is the real vetting process

As Uber points out, both private hire and black cab driver applicants in London go through exactly the same criminal record and background checks. However, as we detail below, these checks are notably weak and will not weed out some individuals who most would deem unsuitable.

It appears that the real check on unsuitable drivers may be provided not by the vetting but by the Knowledge. As well as testing topographical ability, the gruelling

three to four year process appears to have the effect of weeding out unsuitable characters. It brings applicants into much closer and more frequent personal contact with examiners and supervisors. There are many more opportunities for character flaws to be exposed. The sheer length of commitment requires that only individuals with a relatively stable background can contemplate putting themselves through the process. No-one can get it in a few days. Passing the Knowledge enters one into a proud corps with professional standards to uphold.

The vetting function – as much as the topographical one – is and remains among the most important practical functions of the Knowledge, and is another clear reason not to diminish it.

#### TfL's criminal record and background checks are weak

The official TfL guidelines<sup>184</sup> concerning who may be licensed as a private hire driver – virtually the only hurdle an applicant must cross – make clear that the process is deeply flawed. As the guidelines make clear, "a criminal history in itself may not automatically result in refusal and a current conviction for a serious crime need not bar an applicant permanently from being licensed."

The guidelines make clear that even convictions for violence do not disqualify someone from being licensed. They merely state that "anyone of a violent disposition must not be licensed until at least three years free of such a [violent] conviction."

Even those with more serious convictions for violence – including GBH, kidnapping, riot, arson or wounding with intent – are not disqualified. They must normally wait seven years after conviction (or three years after they have finished their sentence, whichever is longer).

Serious sex offenders, including rapists, will "normally" be refused, according to TfL. However, less serious sex criminals will merely be "expected to show a substantial period free of conviction for such offences." Those convicted of indecent exposure or soliciting "can be granted a licence subject to a written warning."

An "isolated" conviction for drunk driving "would not necessarily debar an applicant from proceeding on the restoration of his licence," the guidelines say, though more than one drink-driving conviction will bring the three-year wait into play.

TfL says that an application will "normally" be refused "if the applicant has a conviction for an offence that involved loss of life." In practice, however, this does not apply to those who have caused death by dangerous driving, or caused death by careless driving whilst under the influence of drink or drugs. These individuals are merely subjected to the standard seven-year/three-year ban.

Even people convicted of homicide have in the past been given private hire licences by the authority. In 2006, only six years after strangling his wife, a paranoid schizophrenic named Shamsul Haque was given a private hire licence by TfL and started driving for a minicab firm, not Uber. He had pleaded guilty to manslaughter on the grounds of diminished responsibility. In 2009, he was allowed to begin the Knowledge to become a black cabbie – even though he had by that time committed a further crime of violence – but this was cancelled under pressure from the black cab trade.<sup>185</sup>

Sadiq Khan's recent taxi and private hire action plan says that TfL is "investigating the feasibility of introducing a minimum three-year enhanced Disclosure and Barring Service check for drivers to guarantee that a full and comprehensive period of criminal history is available for consideration as part of the licensing process." However, there appear to be no plans to change the actual criteria on which someone is granted or refused a licence.

• We recommend that criminal record and other checks on PHV drivers should be tightened. No-one without a demonstrably criminal-free recent history should be given a licence.

#### **Recent** arrivals

Further difficulties arise in enforcing even these requirements with recent immigrants. TfL has no access to criminal records from foreign countries. If you have lived in a country other than the UK within the previous three years, you are supposed to disclose this and produce a "certificate of good conduct" from that country's embassy.

However, it appears that TfL relies on the immigrant to disclose that they have lived outside the UK in the first place. If they don't, there is no way of checking.

Even if they do disclose it, the lack of a certificate does not disqualify. TfL says that where a recent immigrant does not provide one, they can instead give "references from individuals/ bodies who can confirm their conduct."<sup>186</sup> There seems very little to prevent anyone simply forging such references.

Even then, the lack of a certificate or references "will not prevent an application from being considered," TfL says.<sup>187</sup>

And finally, asylum seekers do not have to produce a certificate or references under any circumstances.<sup>188</sup>

• We recommend that on no account should the requirements for foreign drivers be less onerous than those for UK drivers.

#### English, driving and topographical tests

The topographical tests for private hire drivers are nugatory. As the "skills specification" admits, it "allow[s] a candidate to select the area of the start points according to personal preference ... this allows the system to be designed to meet the needs of individual candidates."<sup>189</sup> The "method of delivery" of the assessment "is not prescriptive," essentially allowing some training centres to qualify candidates on almost any grounds. Among the suggested questions: "Name and draw the four primary compass points."<sup>190</sup>

The exam could be passed in a very short period – even despite this, however, journalists found that some of the training centres were allowing candidates to cheat or completing the exams for them. According to the GMB union, of 137 PHV driver training centres inspected by TfL, 43 – just under a third – were found to be offering "bogus" qualifications. A total of 328 "successful" PHV drivers from those centres were re-tested. Of these, 70 per cent failed the re-test, even the nugatory version currently in force.<sup>191</sup>

TfL is proposing changes to make the exams slightly more rigorous, to reduce cheating and to ensure that PHV drivers speak better English. Uber is currently challenging the English-language requirement in court.

The Mayor's recent taxi and private hire review proposes to require that PHV drivers "pass an advanced driving test before they can be licensed." This is welcome but the precise advanced standards to be tested are not specified (there is no single advanced driving test and tests vary by provider).

• We recommend that TFL make both topographical tests and English requirements for private hire drivers significantly more rigorous. • TFL must monitor and where necessary crack down on the problem of widespread fraud and cheating at training centres where the PHV exam is offered.

#### Insurance

As "self-employed" individuals, Uber drivers are responsible for arranging their own hire-and-reward insurance. Uber is supposed to check that they have it, but journalists have shown how those with fake insurance documents can still pass the checks and be allowed to drive on the platform.<sup>192</sup> TfL is "considering" requiring private hire operators such as Uber to indemnify their customers against any failure of the driver to have adequate hire-and-reward insurance.

• We recommend that Uber and other e-hailing operators be required to indemnify their customers against any failure of the driver to have adequate hire-and-reward insurance.

#### How Uber tracked its users' sex lives

Your safety is not the only aspect of Uber's service where it could do better. Passengers' privacy has been invaded, too.

In a 2012 blog, now deleted, Uber US published information about users who took what it called the "Ride of Glory (RoG)," went somewhere other than home on Friday or Saturday nights, then left early the next morning. As an Uber manager Bradley Voytek explained: "A RoGer was defined as anyone who took a ride between 10pm and 4am on a Friday or Saturday night, and then took a second ride from within one-tenth of a mile of the previous night's drop-off point 4–6 hours later."<sup>193</sup> The blogpost did not name individual "RoGers," but gave shaded maps showing where they clustered.

#### How Uber published users' movements

Sometimes, Uber went further. One day in 2011, a tech entrepreneur called Peter Sims was in an Uber car in New York City when he got a text from a woman called Julia Allison. "She's someone I hardly know asking me if I was in an Uber car at 33rd and 5th [Streets] or something like that," he recalled. "I replied that I was indeed – thinking that she must be in an adjacent car. She continued to text with updates of my car's whereabouts, so much so that I asked the driver if others could see my Uber location profile? 'No,' he replied, 'that's not possible."<sup>194</sup>

But it was possible. Ms Allison was in fact a thousand miles away, in Chicago, at a party thrown by Uber where the company was amusing Mrs Allison and other guests with something it called "God View," a large screen displaying the live, realtime movements of "prominent" individual users. "I expressed my outrage to her that the company would use my information and identity to promote its services without my permission," said Mr Sims. "She told me to calm down, and that it was all a 'cool' event and as if I should be honoured to have been one of the chosen."<sup>195</sup>

As well as being displayed at press conferences and the like, God View was constantly available to any Uber staff member. (They've changed it now, they say, to restrict access to those with an "operational need" for the service, and developed a "presentation view," omitting personal information, for showing to third parties.)

In 2014, Uber's general manager in New York, Josh Mohrer, was getting impatient after a journalist, Johana Bhuiyan, failed to turn up on time for a scheduled interview. So he tracked her on Uber God View to find out where she was, and what she was up to.<sup>196</sup>

## How Uber threatened to use its information against journalists

Annoyed by the unhelpful publicity from this and other incidents, the company's senior vice-president, Emil Michael, speculated (at what he thought was an off-the-record dinner) about spending "a million dollars" to smear journalists by looking into their "personal lives" and "families." He named a long-time Uber critic and Silicon Valley blogger, Sarah Lacy, as a potential target. Uber could, he told the dinner, prove a particular and very specific claim about Ms Lacy's personal life, presumably through its records of her journeys.<sup>197</sup> He later apologised for his comments which he said were borne of frustration at media coverage of Uber and which he said bore no relation to the company's actual views or activities. The dinner was hosted by Ian Osborne, a former senior adviser to David Cameron who is now one of several senior British advisers to Uber.

#### What you agree to when you join Uber

Anyone who joins the Uber app ticks – almost certainly without reading – a very broad privacy agreement allowing Uber to access – and share – large amounts of their personal data: in many cases, not just about when and where they ride in Uber cars, but where they go at any other time, who they know and what other websites they use.

As the agreement states:

"If you permit the Uber app to access location services through the permission system used by your mobile operating system, we may also collect the precise location of your device when the app is running in the foreground or background. We may also derive your approximate location from your IP address...

"We may access and store names and contact information from your address book to facilitate social interactions through our services... We collect server logs, which may include... the third-party site or service you were using before interacting with our services...

*"We may share your information with law enforcement officials, government authorities or other third parties... to protect the rights, property and safety of Uber or others."*<sup>198</sup>

• A regulatory investigation should be opened into Uber's privacy standards, following repeated breaches in other countries. Uber should seek much more explicit consent from its customers about how it uses their private information.

## 05

# Uber and the public interest

"We are in a political campaign. The candidate is Uber and the opponent is an asshole named taxi." (Travis Kalanick, chief executive, Uber)<sup>199</sup>

At five o'clock on the evening of December 5, 2014, Uber started operations in the US city of Portland, Oregon. The first that Portland's mayor, Charlie Hales, and his transport commissioner, Steve Novick, knew about it was when a reporter texted Mr Novick earlier the same day.

"People should know that Uber's action is illegal," said a furious Mayor Hales that night. "The city will enforce existing regulations. That could include fines for the company, as well as fines for drivers."<sup>200</sup>

"This is not about whether we should have a thoughtful conversation about changing taxi regulations," said Mr Novick. "We're up for that. This is about one company thinking it is above the law."<sup>201</sup>

Portland, sometimes called the "hipster capital of the world," is perhaps the most walking, cycling and public-transport friendly big city in America, with large numbers of bike lanes, pedestrian zones and bus corridors, as well as tightly regulated cabs. The city fathers weren't sure they wanted their comparatively car-free downtown to be flooded with Uber cabs.

But Uber, it seemed, knew the citizens of Portland better than they knew themselves. "The statement by Commissioner Novick shows a real disregard for consumer demand, choice and what the people of Portland want," purred a spokeswoman – and the rides went on. Who cared about boring old laws?<sup>202</sup>

As the local newspaper, The Oregonian, put it, Uber had been "amassing on the border" for months, pouring cars into the more lightly-regulated suburbs just outside the city limits, advertising heavily in the city itself but then telling Portlanders who requested rides on its app that it could not pick them up because of "antiquated regulations." Sometimes it would use Uber drivers to send them free consolation ice-cream instead.<sup>203</sup>

Within two weeks of Uber's arrival, the authorities had capitulated, agreeing, in the words of a mayoral spokesman, to "upgrade our policies to match the reality of the sharing economy." In return, Uber kindly undertook to "pause" breaking the law until it had been changed to suit them (unless this took longer than four months, in which case they would start breaking it again).<sup>204</sup>

It was a textbook steamrollering, repeated in dozens of places across the US – like Philadelphia, where Uber simply turned up and started offering free rides, while literally the same day telling the regulator it had "no intention" of doing so.<sup>205</sup> Or Virginia, where Uber sent all its local customers the personal email address and

phone number of the official who had ruled its service did not comply with state laws. Besieged, the man backed down after 48 hours.<sup>206</sup>

As Eric Jackson, the former PayPal executive who has charted the ways of Silicon Valley, notes, "disruption" startups such as Uber begin by deliberately ignoring the rules. By the time the authorities catch up, they have built a big and vocal customer base which they can use as a pressure tool to have the rules rewritten in their favour.<sup>207</sup>

In London, the taxi regulator, TfL, took an especially long time to catch on to what the then mayor, Boris Johnson, called Uber's "predatory" tactics.<sup>208</sup> Johnson admitted to the London Assembly last year that TfL had not taken legal advice before granting Uber an operating licence in 2012.<sup>209</sup> There could have been at least some doubt about Uber's ability to qualify for an licence, since the contract the company has with its drivers requires them to agree that Uber does not provide "transportation services, function as a transport carrier or agent for the transportation of passengers."<sup>210</sup>

By the time TfL eventually realised that the growth of e-hailing services had contributed to congestion and pollution (see below), and outlined proposals to restrict them, Uber had amassed a loyal fan club. Two hundred thousand of its members signed a petition against TfL's recent proposals to change London's private hire rules.<sup>211</sup> TfL and the mayor backed down.

#### Uber's remarkable influence over the UK government

Britain hasn't seen any Portland or Philadelphia-style ground wars. But it hasn't needed to. Perhaps afraid of seeming unhip, ministers and regulators under the previous Government embraced Uber more naively than any smartphone-waving millennial. The then Business Secretary, Sajid Javid, equated the company's interests with those of "ordinary Londoners" and said any restrictions on it could have a "dramatic detrimental impact."<sup>212</sup>

Senior ministers, including the then Chancellor, George Osborne, and Downing Street staff carried out "incredibly aggressive" lobbying of the former mayor, Boris Johnson, on Uber's behalf, according to City Hall officials.<sup>213</sup> "The pressure to get us to drop the private hire review of was off the scale," said one senior figure. "They completely bought in to the Uber line. They viewed it as somehow a symbol of the kind of economy they wanted to build. In fact, of course, it has no allegiance whatever to the UK and pays virtually nothing in tax."<sup>214</sup>

Johnson himself accused ministers of being "absolutely besotted with this idea they've got to support Californian tech titans – even though they don't pay a dime of tax in this country."<sup>215</sup> (In fact, Uber does pay a tiny amount of tax, see later in this chapter.) He warned: "There is a difference between welcoming tech investment or start-ups in London and necessarily wanting to see technology do substantial environmental damage – or whatever it happens to be – in a market that is already very heavily regulated."<sup>216</sup>

The Mayor also confirmed that he had been subjected to "enormous lobbying by the Government" in Uber's favour and refused to deny that he had been personally contacted by the Chancellor.<sup>217</sup>

#### Uber's remarkable support from within the civil service

Uber's political fanbase appears to have spread to the civil service. In December Alex Chisholm, then head of the Competition and Markets Authority, Britain's chief competition regulator, wrote an extraordinary newspaper article directly attacking attempts to restrict Uber and essentially declaring himself redundant: "Technologies such as ... cashless payment systems and user ratings platforms have the potential to overtake the role of regulation, and safeguard consumers by empowering them with information," he said.<sup>218</sup> Such a piece by an independent civil servant was almost unprecedented; its content even more so.

#### But why does this matter?

Many will say: so what? Shouldn't we be glad the future has arrived, cab fares have dropped, and the cool kids have made stuffy city officials look stupid? Of course, any regulator must recognise that Uber's service is popular, even cherished, among its customers.<sup>219</sup> And certainly many cities, even the biggest and most powerful, have mishandled their responses to the company. London's proposal for a mandatory five-minute wait before a passenger could be picked up was unreasonable, unpopular, and was never going to fly.

But despite Uber's egalitarian patter, despite the growth in the market it has brought, and despite its claim that it is "what the people want," cab customers are not "the people." They are a very small and comparatively well-off minority of the people. 98.7 per cent of journeys in London are not made by black taxi or private hire vehicle<sup>220</sup> and the vast majority of Mr Javid's "ordinary Londoners" never enter a taxi of any kind from one month to the next.<sup>221</sup>

If, as this report argues, an unrestricted Uber could harm the means of transport which most "ordinary Londoners" actually use – buses, trains, vans and private cars – then regulators have a duty to protect those Londoners' interests.

It is clear, too, despite Mr Chisholm's apparent conviction, that Uber's ambitions and behaviours do present competition issues – and not just for cab passengers – which cannot be resolved merely by "empowered consumers" using their smartphones.

As we shall see, the company itself has been reasonably open that its wish is to expand its reach across all forms of urban road transport. Nor is the information presented to customers by Uber as accurate and transparent as Mr Chisholm seems to think. Regulators must recognise the wider public interest in not allowing any single company, let alone one as commercially ambitious as Uber, to control any market.

Some new economy critics have further argued that Uber is a would-be "platform monopoly"<sup>222</sup> whose desires for dominance represent as great a threat to the free market as the great American trusts of the early 20th century.<sup>223</sup> It must, in their view, be addressed in the same way, by government action and vigilance. So far, the British Government's approach, of eager facilitation, has been the exact opposite.

The strength, success and reputation of London rests on its being, and being seen as, a place where governance and the law are upheld. It is therefore strategically unwise, as well as wrong in principle, for the UK to allow a company such as Uber to dictate the terms of regulation and public debate.

What is good for Uber is not always good for London.

#### Uber is partly responsible for increasing congestion

It is clearly in the public interest that traffic congestion not be increased. Congestion cost London's economy £5.3 billion in 2013, predicted to rise to £6.7 billion by 2020, according to the Centre for Economics and Business Research.<sup>224</sup> It also has a detrimental effect on the bus services that, in London, account for 13 times more journeys every day than taxis and private hire.<sup>225</sup> Uber has repeatedly asserted that its service brings dramatic reductions in traffic, though it has been unable to decide which figures to claim on the subject, sometimes even claiming two different figures on the same day.

On 3 October 2014, the company's UK director, Jo Bertram, said that by reducing the need for car ownership Uber could bring about "a million fewer cars in London" – a reduction of more than a third – and that "for every partner driving on the Uber platform [in London], six cars could be taken off the road."<sup>226</sup>

That afternoon, Uber's chief executive, Travis Kalanick, who doesn't deal in words like 'could,' said: "In the last month we have had 7,000 active drivers on the

Of the nearly 1.3 million commuters who enter central London every morning, only 65,000 come by private car. Only three per cent of Londoners drive a car or van in the city centre five days a week or more and only seven per cent do so even once a week. 71 per cent never drive in the centre at all roads in London. For each of those cars on the road, you are taking seven and half cars off the road."<sup>227</sup>

By June 2015, across the company's operations as a whole, this had risen still further to become "10 cars off the road for every Uber that's fully utilised on the road."<sup>228</sup>

Whether six, seven and a half, or ten, these claims are manifestly false. In London, only just over half of households (equating to about

a third of people) even have access to a car.<sup>229</sup> Moreover, around 90 per cent of all journeys to, from and within the city centre are not made by car.<sup>230</sup>

Of the nearly 1.3 million commuters who enter central London every morning, only 65,000 come by private car.<sup>231</sup> Only three per cent of Londoners drive a car or van in the city centre five days a week or more and only seven per cent do so even once a week. 71 per cent never drive in the centre at all.<sup>232</sup>

The vast majority of Uber's London customers have switched not from cars that they do not own, or do not use in central London, but from black taxis, public transport, cycling or walking. All these switches will, of course, increase traffic, not reduce it. For now at least, 22,500 black cabs remain on the streets alongside all the new Uber cars. Per person transported, buses and bicycles are far more efficient users of road space than Uber cabs, while trains and pedestrians take up no road space at all.

If Mr Kalanick's claim was right, London in 2014 should have seen a reduction in car use of around 52,500 a month, or 630,000 a year, and car ownership should have fallen. In fact, according to Department for Transport figures, there was a 1.8 per cent rise in traffic that year – and a 3.4 per cent increase in central London, Uber's heartland, described by TfL as "a very sharp turnaround compared to established trends."<sup>233</sup> Car ownership rates rose slightly, too.<sup>234</sup>

Not all of the rise is Uber's doing, of course. Petrol prices have been falling, London's economy and population growing, and the number of other commercial vehicles, such as vans delivering internet shopping and construction lorries, has also risen sharply.

But by November 2015, there were more than 90,000 private hire vehicles in London, up almost 40 per cent since Uber launched its main "UberX" service in mid-2013 and all of them are exempt from the £11.50-a-day congestion charge.<sup>235</sup> That number rose by 19 per cent in the year to April 2015 alone<sup>236</sup> and is increasing by about 300 new registrations a week. In 2013, according to TfL, one in a hundred vehicles entering the central London congestion charge zone was a private hire vehicle. By November 2015, it was one in  $11.^{237}$ 

Even Uber admits that 3.1 per cent of all vehicles in the congestion charge zone during charging hours are now its cabs.<sup>238</sup> Though this is probably an underestimate, it is still significant, and is easily enough to tip many saturated road junctions over the edge, particularly since Uber cabs will move around more than most other vehicles in the zone.

Though TfL initially believed, in relation to 2014, that the rise in private hire vehicles did "not appear to have fed through directly to significantly increased traffic levels,"<sup>239</sup> the authority has now changed its view. "The sharp increase we have seen in the number of private hire vehicles on London's roads has significant effects on the reliability of buses, the ability to move freight through London, and the safety of cyclists and pedestrians," TfL said in November 2015.<sup>240</sup> A competitor minicab firm, Addison Lee, has claimed that the growth in the number of private hire vehicles has slowed traffic by 10 per cent.<sup>241</sup>

- We recommend that the number of private hire vehicle licences be capped. A cap could be applied as an absolute number, or as a monthly or annual cap for new licences. This would, however, require legislation.
- We recommend that, as TfL is currently proposing, private hire vehicles should have to pay the congestion charge. PHVs which would otherwise be exempt from the charge if they were private cars, such as the plug-in hybrid version of the Toyota Prius, should also have to pay it.

#### Parking and waiting

Parking and waiting have also become problems in parts of London. Anyone who opens the Uber app can see often large numbers of cars parked in or circling their immediate vicinity, waiting for jobs. Although Uber has admitted that these displays are sometimes inaccurate,<sup>242</sup> they mostly are real – and the effects can be detrimental.

Previously quiet central London squares and streets have become holding pens for Uber cabs, many with their engines running, radios on, exhausts pumping, and traffic movement disturbing the residents. In the evening, Uber's peak time, spaces for West End visitors using their own cars are now in shorter supply.

By early this year, small residential streets near Heathrow had become full from the hours of the morning with dozens of Uber drivers, waiting for jobs from the airport, playing music, leaving litter and annoying householders.

In Oaks Road, Stanwell, one of the closest roads to the airport where parking is unrestricted, lines of up to 40 Uber drivers left "their lights and the engine running for hours," said one resident, Amir Patwa. "The drivers park and they go to our garden to urinate. They go to the toilet, put it in the street in a Tesco bag." Another neighbour, Jane Laszlaw, said: "They wait there at 5.30am with their boots open, lights on, radios on. They wake me up at 5.30am when I don't have to be up for work until 7am. They wait right outside our house and we can't park when we come home from work." In January, an Uber driver assaulted a resident of Oaks Road who objected to his parking there.<sup>243</sup> Since January, the airport has opened a waiting area for e-hailing vehicles and Uber has employed "geo-fencing" to deter them from waiting in residential streets around the airport.

- We recommend that there be formal restrictions, not dependent on action by Uber, on where private hire vehicles can wait and park in central London and around Heathrow, and that these be strictly enforced by local authorities.
- We recommend a requirement that PHVs waiting for business must switch their engines off, to be enforced by traffic and parking wardens.

#### Uber poses a threat to the public transport network

Uber's further ambition appears to be to supplant not just London's black taxis, but its red buses too. The company has explicitly positioned itself as an alternative to "building... expensive new public transportation,"<sup>244</sup> and recently launched in London an intermediate-priced product, UberPool, allowing riders travelling in the same direction to share an Uber cab for a 25% discount. In San Francisco – where most things Uber-related start – UberPool now accounts for nearly half the company's business.<sup>245</sup>

In June 2015, Uber's chief executive, Travis Kalanick, said: "When you chain enough of these [UberPool] rides together, you can imagine a perpetual trip – the driver picks up one customer, then picks up another, then drops one of them off, picks up another – the trip just keeps going ... It has the potential to be as affordable as a taking a subway, or a bus ... and that's what we believe is the real game-changer."<sup>246</sup>

This already sounds rather like a bus. But in San Francisco last summer, the company launched a product even more like one, Smart Routes, where Uber vehicles run "along specific routes," which also happen to be bus routes, and stop at "suggested pickup points," quite like bus stops, in fact.<sup>247</sup> In return for a discount on the already discounted UberPool fare, the customer may have to walk a block or two to pick up his ride. A typical trip costs around \$4–5, only around twice the public bus fare of \$2.25. Similar initiatives are underway in Seattle ("UberHop") and Chicago ("UberCommute").

Such developments in London could cream substantial numbers of more affluent customers from the bus service, hitting its revenues and viability, removing many of the middle-class users most likely to agitate for improvements and reducing the network to more of a residual service for the poorer (and those who travel free, such as OAPs). That would not be in the wider public interest.

Something like this may, in fact, already be starting to happen, even before the launch of the most bus-like Uber products this side of the Atlantic. TfL has said that the rise in the number of private hire vehicles has had "significant effects on the reliability of buses" in central London.<sup>248</sup> In the last year or so, due to growing road congestion, there has been a decline in the use of some central London bus services, even as the population has grown and Tube and rail use has continued to climb.

As we have already seen, Uber and other private hire vehicles are only partly to blame for the rise in road congestion and therefore the fall in daytime bus use. However, a direct and specific "Uber effect" can be traced in the patronage of London's night buses, the part of the public transport network most immediately threatened by the growth of private hire.

Night buses operate between about midnight and 5am. Many have over the last year seen steeper declines in usage than day routes, even though they are barely affected by congestion, which is very low or non-existent at this time. Usage of the route N12, for instance, has declined by 26 per cent, compared with a 13 per cent drop on the daytime route 12. The busiest night routes, the N25 and the N29, are down 13 per cent and 9 per cent respectively.<sup>249</sup>

During the period covered by these figures the Tube did not operate overnight and the night buses' only competitors were cars and cabs. It seems clear that some people who would previously have got the bus are taking Uber cabs at this time. According to Uber, the company's "busiest time is when the bars close and other forms of transport are more limited," around midnight. If such declines continue, London's night bus service, one of the most comprehensive in the world with buses running as often as every 3–4 minutes on 125 routes, is at clear risk, with obvious implications for the hundreds of thousands of night workers and others who cannot afford to take an Uber. The success of the weekend Night Tube service introduced this summer is also potentially under threat.

In the USA, where Uber has been active for longer, public transport experts are starting to attribute declines in transit usage partly to Uber and other e-hailing services, for instance in Washington DC and Los Angeles.<sup>250</sup>

Some American cities have already reduced late-night public transport, citing the effects of Uber and other e-hailing services. In Boston, for instance, the weekend closing time of the subway has been cut back from 2.30am to 12.30am.<sup>251</sup>

#### Uber and inclusion

It is often forgotten by the media and politicians that, according to Ofcom, 34 per cent of the UK adult population does not have a smartphone,<sup>252</sup> and therefore is by definition excluded from e-hailing services.

London is the only large city in the world whose licensed taxi fleet is 100 per cent accessible to wheelchairs. The city also funds the Taxicard scheme, allowing disabled

London is the only large city in the world whose licensed taxi fleet is 100 per cent accessible to wheelchairs. The city also funds the Taxicard scheme, allowing disabled Londoners to travel by black taxi for a flat fare of £2.50 (...) Uber and other e-hailing services do not participate in this scheme and in any case "very few" of their vehicles are accessible to wheelchair users Londoners to travel by black taxi for a flat fare of £2.50 (plus an excess charge for longer journeys). Uber and other e-hailing services do not participate in this scheme and in any case "very few" of their vehicles are accessible to wheelchair users, according to Transport for All, the main London accessible transport charity.<sup>253</sup>

If black taxis are put out of business by Uber or other vehicles, it threatens the mobility of the 11 per cent of Londoners<sup>254</sup> – 900,000 people – who are disabled. In San Francisco, where

Uber has substantially displaced traditional taxis, the availability of accessible transport has declined sharply. The number of pickups in so-called "ramp taxis," ie those able to take wheelchairs, fell by 44 per cent in the 18 months to July 2014.<sup>255</sup>

Section 165 of the Equality Act 2010 requires private hire vehicles to take passengers in wheelchairs. However, it has not been brought into force by the Government.

• We recommend that a minimum proportion of e-hailing vehicles – we suggest 30% – be accessible. PHV operators should have to obey s165 of the Equality Act 2010, requiring them to take disabled passengers.

#### Uber and transparency

A study into Uber by Data & Society, a non-profit research institute in New York, and published by slate.com, offers a counterpoint to the trusting story of "consumers empowered and safeguarded by information" adopted by Messrs Osborne, Chisholm and others.

Based on patent filings, it suggests that the information presented by Uber to the allegedly empowered, safeguarded consumer is not necessarily always an accurate

guide to the precise dynamics of the market place at any given time. It is, the researchers say, a deliberately-created "mirage of a marketplace – an app experience that produces the sensation of independent riders and drivers responding to the natural fluctuations of supply and demand. But a look underneath the hood reveals a system that intermediates and influences more than it facilitates free exchange."<sup>256</sup>

In a real marketplace, supply responds directly to the pressures of demand. But in the Uber app, according to the Data & Society researchers, the supply of drivers is instead mobilized to meet *predicted* passenger demand, as through surge pricing. The map familiar to all Uber users, with little cars apparently hovering round your vicinity, can also be misleading. According to the researchers, the presence of those virtual cars on the passenger's screen does not necessarily reflect an accurate number of drivers who are physically present, or their precise locations. Instead, these phantom cars are part of a "visual effect" that Uber uses to emphasize the proximity of drivers to passengers. The visual effect shows cars nearby, even when they might not actually exist. As the researchers conclude, "whether you are a driver or a rider, the algorithm operating behind the curtain at Uber shows a through-the-looking-glass version of supply and demand."<sup>257</sup>

• We recommend that competition authorities work with Uber to ensure that its app present a true picture of the market, including comparing the information provided on the app with the reality on the ground.

#### Uber and competition

The relaxed view taken by the Competition and Markets Authority's Mr Chisholm is the more surprising when one considers e-hailing services' record of alleged anti-competitive behaviour in other markets. Lyft, Uber's main US rival, (which is not yet available in the UK) has even accused Uber of attempting to undermine it by having its contractors and employees book and then cancel thousands of Lyft rides as part of a project called "Operation SLOG."<sup>258</sup>

Hubert Horan, a consultant with long experience of investigating anti-competitive practices in the US airline industry, has argued that Uber and other e-hailing services' low fares are "not sustainable" but are investor-subsidised predatory prices which will swiftly be raised as soon as the company has established market dominance or driven competitors out of business.

Horan says: "If the unicorn [tech startup] investing class thinks Uber has proven that tens of billions of private value can be created purely with PR and political strength, then 'unicorn manufacturing' becomes an industry unto itself... Each new unicorn creates the need to increase raw political power used to enrich these investors, and to destroy any possible political opposition."<sup>259</sup>

To be fair, there is little sign of this, as yet. Even in San Francisco, the city where Uber is longest-established and where it is perhaps strongest, fares for the basic UberX service have not risen substantially. On the other hand, in San Francisco, Uber has only been in operation for five years and has yet to achieve full market penetration. We are at an early stage of this cycle.

Another "new economy" critic, Douglas Rushkoff, has argued that Uber "cannot support its multi-billion-dollar valuation by being [merely] a ride broker but that it is a "platform monopoly in the making" aiming to "leverage into other verticals, from logistics to self-driving cars."<sup>260</sup>

#### Uber is heavily subsidised by UK taxpayers

Uber's spokesman, Gareth Mead, has claimed to the BBC that "on tax, Uber is a significant contributor to the UK."<sup>261</sup> This is untrue. Company records for Uber's operating company in the capital, Uber London Ltd, show that in its first two full operating years, 2013 and 2014, it turned over a total of £12.4 million and paid tax totalling £28,796, less than the amount which would have been paid over the same period by three black taxi drivers.<sup>262</sup> Last year its turnover went up to £23.5 million and it paid £411,000 in tax.

2013 and 2014 were growth years for Uber London, with much of its turnover taken up by startup expenses and operating profits low. But even on its declared net operating profit across the two years, £552,000, Uber London paid an effective tax rate on profit of 5.2 per cent, falling to 2.5 per cent in 2014.

Over the same period, by comparison, Uber's main legacy competitor in the London minicab market, Addison Lee, paid almost double the rate of tax on its operating profits -9.3 per cent.<sup>263</sup>

Addison Lee also charged and paid VAT on many of its rides, as cab firms are required to do for account customers. On one interpretation of the law, every Uber customer is an account customer. By any interpretation, some Uber customers are – those using its "Uber for Business" product, which Uber explicitly describes as "a company Uber account," as "your account [which] has global coverage" and where it invites businesses to "visit our signup page to create an account."<sup>264</sup> However, Uber neither charged nor paid UK VAT on any ride in London.

The London business is wholly owned by the Dutch-registered Uber International Holding BV, which has subsidiaries in the Irish Republic and is ultimately owned by a parent company based in the more friendly tax climes of Bermuda. As revealed by the small print of the conditions you agree to on the app, London's Uber service is "made available by Uber BV," not the British holding company.<sup>265</sup>

Uber's response is similar to that of other lightly-taxed new-economy companies, such as Amazon and Google: it "complies with all applicable tax laws, and pays taxes in all the jurisdiction it operates in." It does.

But unlike Amazon and Google, Uber's business depends wholly on infrastructure – the road network – provided at public expense. It has so far contributed almost nothing towards the very substantial costs of this infrastructure, meaning that its service – unlike that of the black taxis and legacy minicab companies – is effectively subsidised by taxpayers, the vast majority of whom will never use it.

How much could this subsidy be worth to Uber? In the first three years of its service, between June 2012 and June 2015, it drove 92,831,000 passenger miles in London, according to the company.<sup>266</sup> Adding a conservative 20 per cent for non-passenger mileage – travelling between jobs, returning empty from drop-offs, or travelling from the driver's home into central London – brings us to a total of 111.4 million miles, 0.2 per cent of the total mileage driven on the Greater London road network over this time.<sup>267</sup>

Over these three years, the maintenance and improvement of London's roads cost taxpayers around £4 billion.<sup>268</sup> Based purely on its usage across the same period, Uber's fair share of that expenditure would have been £8 million, about 300 times more than the tax it has so far paid.

In practice, Uber only launched its main product, UberX, in July 2013 and only started making significant use of the roads in 2014, so Uber cars will now account for more than 0.2 per cent of road usage and the company's fair share of payments could therefore now be significantly greater.

Taxpayers may also be providing a second form of subsidy to Uber. According to James Farrar, an Uber driver who runs the United Private Hire Drivers organisation, the company "pays its drivers so poorly that a lot of our members are reliant on working tax credits."<sup>269</sup>

- PHV operators should be required to be based in the UK for tax purposes. They must pay full UK tax on their UK profits for the upkeep of the roads on which they entirely depend. They must charge and collect UK VAT where it is due on fares.
- If this cannot be accomplished under existing national legislation or policy, the Mayor and Tf L have a power under section 3 (3) (b) and 3 (4) of the Private Hire Vehicles (London) Act 1998 to require a PHV operator to obey "any... requirements that may be prescribed" and "such other conditions as the licencing authority may think fit" as a condition of being allowed an operator's licence. (The original 1998 act vested this power in the Secretary of State for Transport, but with the establishment of the London mayoralty it was changed to the licensing authority, namely TfL, by the Greater London Authority Act 1999.)
- Any operator which is not based in the UK for tax purposes, and does not pay full UK tax on its UK profits, should as a condition of being granted a London operator's licence be required to pay each year an amount equivalent to the cost of its share of maintaining the roads in London that year, or an amount equivalent to the tax it should have paid, whichever is greater.
- Uber's London operator licence, which expires in 2017, should be renewed only on condition that it agrees to pay such an amount, or to become UK-based for tax purposes by no later than 5 April 2017.

#### Uber and its workforce

"Here at Uber London, our mission isn't just to keep you moving around this city we call home," says Uber's UK chief, Jo Bertram. "We're also dedicated to providing opportunities for fair and flexible work for the drivers who use our platform to get you from A to B.... There are so many stories, from people who are using their work with Uber to change their lives, to drivers who are just relishing their new-found freedom to take their families out to the park on a Sunday afternoon."<sup>270</sup>

Many Uber drivers do appreciate the work's flexibility. Its fairness is a very different matter. The company refers to its drivers as "partners" – but, as with its definition of congestion, Uber's notion of partnership differs from that found in the dictionary.

In normal language, a partner is someone with greater rights than an employee, namely some measure of ownership or control over the business where they work. In Uber-speak, however, the term is a way of defining its workforce as people with fewer rights than employees – in fact, no rights at all.

Black cab driving is the epitome of that increasingly rare thing, a skilled and (until recently) secure job for mostly working-class and lower middle class people. According to Steve McNamara, general secretary of the London Taxi Drivers' Association, a black cabbie working full-time will typically gross £50,000 a year before expenses.<sup>271</sup> Others put it higher – around £65,000 per year net.<sup>272</sup>

Uber driving, by contrast, is almost the epitome of that increasingly common phenomenon, the "precariat" job. Uber's drivers have to pay to work for it. Uber fares are cheap because the company has offloaded almost all the running costs of its service onto its own workforce. They buy their own vehicles, paying purchase, petrol and maintenance costs out of their fare income. So, of course, do other taxi drivers. But Uber drivers must do so out of fare income from which Uber has already taken a cut of up to a third (in London, it started at 20 per cent, being raised recently by a quarter to 25 per cent for new drivers and to 35 per cent for UberPool bookings).

This is despite the fact that from the outside, Uber looks quite like an employer. It screens and trains its drivers. It gives them guidelines for participation. It urges them to promote its brand. It provides them with equipment such as an iPhone, the Uber app and its logo for their cars.<sup>273</sup> It sets standards for their vehicles. It determines fares. It monitors their performance. It fires – or "deactivates" – them if their ratings from customers dip as little as 10 per cent below a perfect 5, though the exact level appears to vary according to the wishes of individual managers.

Deactivation is instant – no notice or redundancy pay is given – and can be brutal. "Get rid of this guy," said an Uber manager in emails released for a court case. "We need to make some serious cuts of guys below [a rating of] 4.5." The reply from a second supervisor: "Done via phone! Remote banning – I love it."<sup>274</sup>

In another of the email exchanges, a driver complains he is losing money from system freezes, incorrect addresses and other issues."I think you business nothing but a stupid model, you only care about yourself then the driver suck it up with the major cost," he wrote. An Uber manager replied: "Google thinks we're a pretty good business model," linking to a story about a £150 million investment in Uber in 2013. Another Uber manager stepped in to tell the driver that the company had "chosen to exercise our right to deactivate your account" because of his disrespectful emails.

The driver quickly responded, apologising and pleading for another chance."I work hard ... and stay up late nights to see difference in pay," he wrote. "My responds were to express the frustration I get. ... It's a partnership as you said here, and expressing my side of issues with no solution but to come and terminate me is wrong." It does not appear that Uber reconsidered his case.<sup>275</sup>

The status of Uber drivers in the UK is currently the subject of an employment tribunal test case in which two drivers are arguing that they should be classed as workers and given normal employment rights, including sickness and holiday pay. A ruling is due soon.

#### Drivers

As with Uber's claims over congestion, its claims over driver earnings are inconsistent and often exaggerated.

In June 2014, Ms Bertram claimed that "the economic opportunity for drivers on the Uber platform is significant: a fully utilised vehicle on Uber is an asset that *typically* (our italics) grosses £50,000–70,000 per year."<sup>276</sup> The gross isn't the "economic opportunity for drivers," of course – it is the amount before Uber's 25% cut (20% for drivers who joined before November 2015) and the driver's running costs are deducted.

In October 2015 an Uber spokesperson, Gareth Mead, told the BBC: "If you treat driving on the platform as a full-time job, that's seven, eight hours a day, then *typically* a driver *will take home* (our italics) £48,000–£49,000."<sup>277</sup> That implies gross takings (before deducting Uber's cut of up to 25% and £10,000 a year in running costs) of around £75,000 a year for a 35 to 40-hour week.

The figure could be as high as £85,000. The £10,000 figure for running costs is conservative; including the cost of leasing a vehicle the GMB union estimates it at £20,000 a year.<sup>278</sup>

Gross takings of £70–85,000 a year for a 35-hour week may be possible for exceptionally lucky drivers, perhaps those on Uber's premium services who focus ruthlessly on surge pricing opportunities. But to claim them as "typical" stretches belief.

Normal London UberX rates are roughly  $\pounds 2.20 - \pounds 2.90$  per mile. The average is likely to be raised a little by surge pricing, but then brought down again by UberPool journeys, which gross less than the normal rate.

To gross £75,000 in a year at average UberX rates, a driver would have to clock up as many as 34,000 miles in revenue-earning service. That is 655 miles a week – or an average of 18.7 miles every single hour of the 35 hours with a paying passenger in the back.

This would seem difficult to achieve, given that the average speed of London traffic is 16.3mph. It is even slower, 8.9mph, in central London, Uber's main stamping-ground.<sup>279</sup>

Clearly, too, any cab, even an Uber one, will spend some, perhaps many, of Mr Mead's 35 hours without passengers, or without moving, or both – waiting for jobs, or stopping to let people in and out, or returning empty from dropping someone off.



© Simon Dawson/Bloomberg/Getty Images

Even Uber's own website contradicts its management's claims about driver earnings. In its section for new drivers, the company promises: "Turn your car into a money machine. Some UK Uber partner-drivers have received an average of £3360 a month after Uber service fee."<sup>280</sup>

This equates to £40,320 a year before running costs, or roughly £20,000 to  $\pounds$ 30,000 net to the driver, depending on how much you estimate running costs – at best little more than half Mr Mead's claimed £49,000.

Uber came up with yet a fourth claim about driver earnings in November 2015, saying that its London drivers make an average of £16 per hour after the service fee.<sup>281</sup> For a 35-hour week that equates to £29,120 before running costs – in other words, between £9,000 and £19,000 net to the driver, at best little more than a third of Mr Mead's claim. November was also the month when the company's

"Uber's business model has serious weaknesses – not least the way it treats its own drivers." London Uber workers protest at the company's decision to increase its commission from 20 to 25 per cent of fares for new drivers. service fee (commission) was raised from 20 to 25 per cent for new drivers, so the  $\pounds 16$  average is likely to have reduced since then.

The GMB union, which is seeking to organise Uber drivers, has published figures claiming that London drivers make as little as £5.68 an hour, substantially less than the minimum wage (£7.20 an hour from April 2016).<sup>282</sup> Uber drivers on the Uberpeople.net London forum and other online bulletin boards often complain about similar earnings levels. The GMB has started a test case with four drivers at the Central London Employment Tribunal, likely to be heard in July, in an effort to establish that Uber drivers are employees entitled to workers' benefits and legal protection.<sup>283</sup>

In the long term, as Mr Kalanick has made clear, Uber's "driver-partners" are collectively, as well as individually, dispensable.<sup>284</sup> The company is investing tens of millions into researching driverless cars with the intent of displacing human drivers.

In the meantime, however, the drivers – as both "independent contractors" yet also the customer face of Uber – represent a potential weak link for the company. The safety implications of paying them too little have been explored in the previous chapter. There are also growing signs of service implications, with Uber's own customer service Twitter accounts appearing to show quite large numbers of low-value jobs being refused and Uber driver forum posters suggesting a high turnover of drivers.<sup>285</sup>

The Labour deputy leader, Tom Watson, has written: "It took Labour too long to acknowledge that many voters felt immigration, one of the defining features of globalisation, was the most important issue facing the country. It would be wrong to make the same mistake twice by underestimating the impact the digital revolution will have on wages and jobs."<sup>286</sup> The same could be applied to politicians of any party.

Mr Farrar, the Uber driver who runs the United Private Hire Drivers organisation, and who has also been involved with the GMB, said: "These low fares have to be paid by somebody. If consumers don't recognise it, and we accept this type of business model in our economy – well, guess what, one day your job is going to go the same way."<sup>287</sup>

# Appendix

## The knowledge, London's legendary taxi-driver test, puts up a fight in the age of GPS

JODY ROSEN

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At 6.10 on a January morning a couple of winters ago, a 35-year-old man named Matt McCabe stepped out of his house in the town of Kenley, got on his Piaggio X8 motor scooter, and started driving north. McCabe's destination was Stour Road, a small street in a desolate patch of East London, 20 miles from his suburban home. He began his journey by following the A23, a major thruway connecting London with its southern outskirts, whose origins are thought to be ancient: For several miles the road follows the straight line of the Roman causeway that stretched from London to Brighton. McCabe exited the A23 in the South London neighborhood of Streatham and made his way through the streets, arriving, after about 20 minutes, at an intersection officially called Windrush Square but still referred to by locals, and on most maps, as Brixton Oval. There, McCabe faced a decision: how to plot his route across the River Thames. Should he proceed more or less straight north and take London Bridge, or bear right into Coldharbour Lane and head for "the pipe," the Rotherhithe Tunnel, which snakes under the Thames two miles downriver?

"At first I thought I'd go for London Bridge," McCabe said later. "Go straight up Brixton Road to Kennington Park Road and then work my line over. I knew that I could make my life a lot easier, to not have to waste brainpower thinking about little roads – doing left-rights, left-rights. And then once I'd get over London Bridge, it'd be a quick trip: I'd work it up to Bethnal Green Road, Old Ford Road, and boom-boom-boom, I'm there. It's a no-brainer. But no. I was thinking about the traffic, about everyone going to the City at that hour of the morning. I thought, 'What can I do to skirt central London?' That was my key decision point. I didn't want to sit in the traffic lights. So I decided to take Coldharbour Lane and head for the pipe."

McCabe turned east on Coldharbour Lane, wending through the neighborhoods of Peckham and Bermondsey before reaching the tunnel. He emerged on the far side of the Thames in Limehouse, and from there his three-mile-long trip followed a zigzagging path northeast. "I came out of the tunnel and went forward into Yorkshire Road," he told me. "I went right into Salmon Lane. Left into Rhodeswell Road, right into Turners Road. I went right into St. Paul's Way, left into Burdett Road, right into Mile End Road. Left Tredegar Square. I went right Morgan Street, left Coborn Road, right into Tredegar Road. That gave me a forward into Wick Lane, a right into Monier Road, right into Smeed Road – and we're there. Left into Stour Road." It was a cold day, with temperatures hovering just above freezing, and snow in the forecast. For McCabe, on his bike, the wind chill made it feel considerably colder. He was dressed for the weather: a thermal shirt, a sweater, an insulated raincoat, Gore-Tex pants pulled over his jeans, gloves, work boots, a knit cap under his motorcycle helmet. McCabe is a tall man, about 6-foot-2, and he is solidly built, like a central defender on a soccer team. He's handsome, with a wide smile and blond hair. He speaks in short sentences, snappy and definitive, especially when talking about London. We were in Hackney Wick, an industrial area adjacent to

Actually, "challenge" isn't quite the word for the trial a London cabbie endures to gain his qualification. It has been called the hardest test, of any kind, in the world. Its rigours have been likened to those required to earn a degree in law or medicine Queen Elizabeth Olympic Park, where the 2012 Olympic Games were held. Stour Road sits in a particularly remote corner of the neighborhood – a few wind-lashed streets, lined with warehouses, hemmed in by canals and a highway flyover.

"They call this area Fish Island," McCabe said. "I'm not much of a fisherman, but many of the roads here are named for fishes – freshwater fishes, I believe. So just here you've got

Bream Street." He gestured down a road where a lumberyard was set back behind a corrugated metal fence. "Follow that to the end, you'll come to Dace Road. You've got Roach Road. All names of fishes."

McCabe had spent the last three years of his life thinking about London's roads and landmarks, and how to navigate between them. In the process, he had logged more than 50,000 miles on motorbike and on foot, the equivalent of two circumnavigations of the Earth, nearly all within inner London's dozen boroughs and the City of London financial district. He was studying to be a London taxi driver, devoting himself full-time to the challenge that would earn him a cabbie's "green badge."

Actually, "challenge" isn't quite the word for the trial a London cabbie endures to gain his qualification. It has been called the hardest test, of any kind, in the world. Its rigours have been likened to those required to earn a degree in law or medicine. It is without question a unique intellectual, psychological and physical ordeal, demanding unnumbered thousands of hours of immersive study, as would-be cabbies undertake the task of committing to memory the entirety of London, and demonstrating that mastery through a progressively more difficult sequence of oral examinations – a process which, on average, takes four years to complete, and for some, much longer than that.

To achieve the required standard to be licensed as an "All London" taxi driver you will need a thorough knowledge, primarily, of the area within a six-mile radius of Charing Cross. You will need to know: all the streets; housing estates; parks and open spaces; government offices and departments; financial and commercial centres; diplomatic premises; town halls; registry offices; hospitals; places of worship; sports stadiums and leisure centres; airline offices; stations; hotels; clubs; theatres; cinemas; museums; art galleries; schools; colleges and universities; police stations and headquarters buildings; civil, criminal and coroner's courts; prisons; and places of interest to tourists. In fact, anywhere a taxi passenger might ask to be taken.

The six-mile radius from Charing Cross, the putative centre-point of London, takes in some 25,000 streets. London cabbies need to know all of those streets, and

how to drive them – the direction they run, which are one-way, which are dead ends, where to enter and exit roundabouts, and so on. But cabbies also need to know everything on the streets. Examiners may ask a would-be cabbie to identify the location of any restaurant in London. Any pub, any shop, any landmark, no matter how small or obscure – all are fair game. Test-takers have been asked to name the whereabouts of flower stands, of launderettes, of commemorative plaques. One taxi driver told me that he was asked the location of a statue, just a foot tall, depicting two mice sharing a piece of cheese. It's on the facade of a building in Philpot Lane, on the corner of Eastcheap, not far from London Bridge.

If you go to LTPH headquarters, where the examinations are conducted, you will behold a grim bureaucratic scene, not much different than the one you might find in an office devoted to tax audits: nervous test-takers, dressed in suits, shuffling into one-on-one sessions with stone-faced examiners. But for more than a century, since the first green badge was issued to a hackney cabman piloting a horse-drawn carriage, the test has been known by a name that carries a whiff of the occult: the Knowledge of London.

The origins of the Knowledge are unclear – lost in the murk of Victorian municipal history. Some trace the test's creation to the Great Exhibition of 1851, when London's Crystal Palace played host to hundreds of thousands of visitors. These tourists, the story goes, inundated the city with complaints about the ineptitude of its cabmen, prompting authorities to institute a more demanding licensing process.

In 2014, in any case, the Knowledge is steeped in regimens and rituals that have been around as long as anyone can remember. Taxi-driver candidates – known as Knowledge boys and, increasingly today, Knowledge girls – are issued a copy of the so-called "Blue Book." This guidebook contains a list of 320 "runs," trips from Point A to Point B: Manor House Station to Gibson Square, Jubilee Gardens to Royal London Hospital, Dryburgh Road to Vicarage Crescent, etc. The candidate embarks on the Knowledge by making these runs – that is, by physically going to Manor House Station and finding the shortest route that can be legally driven to Gibson Square, and then doing the same thing 319 more times, for the other Blue Book runs.

But the Knowledge is not simply a matter of way-finding. The key is a process called "pointing," studying the stuff on the streets: all those places "a taxi passenger might ask to be taken." Knowledge boys have developed a system of pointing that some call "satelliting," whereby the candidate travels in a quarter-mile radius around a run's starting and finishing points, poking around, identifying landmarks, making notes. By this method, the theory goes, a Knowledge student can commit to memory not just the streets but the streetscape – the curve of the road, the pharmacy on the corner, the mice nibbling on cheese in the architrave.

Decades ago, most Knowledge boys did their runs on bicycles. Now, nearly all test-takers buy or lease motorbikes. In 2014, there are thousands of men and women plying the city's streets on two wheels, at all hours, in all weather, doing runs and gathering points. It's a ubiquitous London sight: a Knowledge boy on a bike, with a map or notepad strapped to his Plexiglas windscreen. When the candidate has completed his 320 Blue Book runs – and his accompanying 640 quarter-mile radii point-gathering expeditions – he will have covered the whole of central London. At which time he takes a brief written exam, proceeds to the first stage of the oral examination process, and the test begins in earnest.

The testing takes place at the LTPH office in a series of "appearances," face-to-face encounters between Knowledge candidate and examiner. The

test-taker is asked to "call a run": to identify the location of two points and to fluidly recite the shortest route between the points, naming all the streets along the way. A Knowledge boy is first given 56 days between appearances to study; then, as he progresses, 28 days, and 21. The questions, meanwhile, get harder, with candidates asked to locate more obscure points and to recite longer, more byzantine journeys across London's byways. Candidates who acquire too many bad grades are bumped backward – "red-lined" from appearances every 28 days back to every 56 days, or from 21s to 28s. There is no such thing as "failing" the Knowledge. You can either quit, or persevere and pass: proceed all the way through to the end of your 21-day appearances, gaining sufficient points to earn your "req" – to meet the "required standard," and complete the test.

For Matt McCabe, that goal was within spitting distance. He was "on 21s, on six points," making appearances just three weeks apart, with six points on his tally, and only six more needed – just two solid appearances, perhaps, away from getting his req. It was a pointing mission that brought McCabe to Fish Island that morning in January. He'd visited the neighbourhood before, but had heard that a new point had come up in a candidate's appearance a couple of days earlier. So he'd returned to take another look at the area – in particular, at H. Forman & Son, a wholesale fishmonger on Stour Road.

"Forman's is quite famous," McCabe said. He was standing outside the H. Forman & Son warehouse, a shedlike structure the size of a small aircraft hanger. "They supply fish to the top restaurants in London. But now they've opened their own restaurant. You have to look into these things. You know, the examiner could turn around and say, 'Name me two Angela Hartnett restaurants,' or 'Name me four Gordon Ramsay restaurants.'" McCabe showed me a sign indicating that the restaurant also housed an art gallery. "You've got to note that. Instead of Formans restaurant, the examiner might give you Forman's Smokehouse Gallery. That could be enough to throw you off."

McCabe had spent his entire professional life in the building trade. He liked the work, but it was gruelling – 15 hours days, seven days a week – and the £50,000 he took home wasn't enough, to his mind, to justify the sacrifices. A job as a taxi driver seemed an attractive alternative. The metered fares of taxis are high, and drivers keep what they earn. The overhead – the cost of petrol and of owning or leasing a taxi – can be steep, but cabbies who put in the hours can make a good living. There are no official statistics, but drivers themselves will tell you that London cabbies can earn around £65,000 per year, while maintaining an enviably flexible schedule. McCabe sold his engineering outfit and devoted himself full-time to the Knowledge, living off the savings he'd gained from the sale of his business.

It was now 37 months since he'd paid the £525 enrolment fee to sign on for the test and appearances. "The closer you get, the wearier you are, and the worse you want it," McCabe said. "You're carrying all this baggage. Your stress. Worrying about your savings." McCabe said that he'd spent in excess of £200,000 on the Knowledge, if you factored in his loss of earnings from not working. "I want to be out working again before my kids are at the age where someone will ask: 'What does your daddy do?' Right now, they know me as Daddy who drives a motorbike and is always looking at a map. They don't know me from my past, when I had a business and guys working for me. You want your life back."

The Knowledge is notorious for snatching away lives, and for putting minds in a vice grip. "Everything becomes about the Knowledge," McCabe said. "My wife will be talking to me about plans or the kids, and it's not even registering what she's saying. Because all I'm thinking is, 'I can't turn right into that road in Hammersmith, can I?' If you read the paper, or watch the news or a film, you're looking at the background. 'Oh, I know that road there.'"

McCabe said that he dreamed about the Knowledge: sometimes exhilarating visions of zooming through London streets, more frequently nightmares about unfamiliar roads or disastrous LTPH appearances. Often, McCabe would wake in the middle of the night and hurry downstairs to study the map. In his dining room, there were three maps: two jumbo London street plans – one laminated on the dinner table and one tacked to the wall – and an enlarged view of the W1 postcode. McCabe had ledgers he'd filled with jottings on topics like "Small and Awkward Squares." There were also flashcards that McCabe had made up, listing a point on one side ("Tooting Mosque, SW17") with information about its location and navigation on the other ("Gatton Road, one way, access via Fishponds Road"). McCabe stacked the cards in piles of 300; he had 40,000 in all.

But book-learning gets you only so far. "You've got to get out on the bike," McCabe said. When he was doing Blue Book runs, McCabe would ride the streets all night, leaving when his wife got home from work at 9 p.m. and returning at 4 in the morning. Pointing, McCabe told me, can be "very cold, very lonely, very dangerous." One night, McCabe was out pointing on his motorbike when a driver slammed into him from behind. McCabe went over the roof of the car, but suffered just a few scrapes and bruises. The bike was wrecked.

As McCabe progressed through the Knowledge, his pointing technique had become more refined. "At the beginning you might go to the Savoy Hotel on the Strand," he said. "That's a famous point; everyone knows it. But you start to think: What's a more obscure point on the Strand? So you'll pick up the Coal Hole Public House a few doors along. You start looking at George Court and find a little bar called Retro, a gay bar that plays '80s music. You start thinking about the bits and pieces. I'm at the stage now where I'm looking at a new bar that just opened – inside a cinema. I'm picking up handbag shops, bowling alleys. You learn to kind of savour them little gems."

It is tempting to interpret the Knowledge as a uniquely British institution: an expression of the national passion for order and competence, and a democratization of what P. G. Wodehouse winkingly called the feudal spirit, putting an army of hyperefficient Jeeveses on the road, ready to be flagged down by any passing Bertie Wooster. But the Knowledge is less a product of the English character than of the torturous London landscape. To be in London is, at least half the time, to have no idea where the hell you are. Every London journey, even the most banal, holds the threat of taking an epic turn: The guy headed to the corner newsagent makes a left where he should have gone right, blunders into an unfamiliar road, and suddenly he is Odysseus adrift on the Acheron. The problem is one of both enormity and density. From the time that London first began to spread beyond the walls surrounding the Roman city, it kept sprawling outward, absorbing villages, enlarging the spider-web snarl of little roads, multiplying the maze. Take a look sometime at a London street map. What a mess: It is a preposterously complex tangle of veins and capillaries, the cardiovascular system of a monster.

All metropolises are quirky, but in most of them efforts have been made to mitigate the idiosyncrasies, to make the cities legible, navigable, beautiful. In Manhattan and Chicago, planners tamed chaos with gridded street schemes; Baron Haussmann obliterated twisty medieval Paris with his sweeping grand boulevards, transforming the city into a linked chain of vistas, plazas and parks. London, though, makes no sense. It was the capital city of the greatest empire in history, yet it doesn't look or feel imperial. There are miles of monotonous ugliness, disrupted not by splendor, but by gentility – the pretty whitewashed homes and stately squares in the well-heeled districts of West and North London. St. Paul's Cathedral sits at the back of a small semicircular plaza that is pinned-in by the office towers and bendy streets of the financial district. It is difficult to get a decent view of the most beautiful building in town.

The genius behind St. Paul's, the architect Christopher Wren, nearly became London's Haussmann. Just days after the catastrophic Great Fire of 1666, Wren produced a plan to rebuild London as an Italian-style city, with wide boulevards that terminated in piazzas and raised stone quays. But the plan never gained traction.

The explanation usually given is economic: If Chicago is an expression of American pragmatism, and Paris an ode to symmetry, then London is a monument to English mercantilism and love of private property, to the power of the bourgeois freeholders and shopkeepers, who clung too tightly to their little patches of land to permit the clearing of space for Wren's plan. In London, lucre trumps grandeur.

The result is a town that bewilders even its lifelong residents. Londoners, writes Peter Ackroyd, are "a population lost in [their] own city." London's labyrinthine roadways are a symbol – and, perhaps, a cause – of the fatalism that hangs like a pea-soup fog over the Londoner's consciousness. Facing the dizzying infinitude of streets, your mind turns darkly to thoughts of finitude: to the time that is flying, the minutes you are running late for your doctor's appointment, the hours ticking by, never to be retrieved, on the proverbial Big Clock, the one even bigger than Big Ben. You can see it every day in Primrose Hill and Clapham, in Golders Green and Kentish Town, in Deptford and Dalston. A nervous man, an anxious woman, scanning the horizon for a recognizable landmark, searching for a street sign, silently wondering "Where am I?" – a geographical question that grades gloomily into an existential one.

Which is where the Knowledge comes in. It is a weird city's weird solution to the riddle of itself, a municipal training programme whose graduates are both transport workers and Gnostics: chauffeurs taught by the government to know the unknowable.

If you follow your London A-Z Street Atlas halfway up Caledonian Road, in Islington, you'll find Knowledge Point, the largest of London's 10 schools dedicated to the test. The school occupies a nondescript two-story building, but you can't miss it: At all hours of the day, Knowledge boys' motorbikes line the sidewalk out front. For several years in the 1990s, there was something else parked alongside the bikes: the steed of a mounted Metropolitan Police officer, who did the Knowledge on horseback, after, and during, his working hours.

The school offers specialized lectures on dozens of topics: "Hotels Outside Central London," "South West London Turnarounds," "Barracks & Military Establishments," "Lambeth & Waterloo." Pupils pick up trade secrets, the aidesmémoires and acronyms that have been passed between generations of Knowledge boys. There's "Cat Eats Well Then Shares Her Beef Gravy," a mnemonic denoting a path north from the Aldwych – the crescent-shaped road that loops above the Strand – along a sequence of one-way streets: Catherine, Exeter, Wellington, Tavistock, Southampton, Henrietta, Bedford, Garrick. To access C.A.B. – the Chelsea, Albert, and Battersea bridges – you take C.O.B.: respectively, Chelsea Bridge Road, Oakley Street and Beaufort Street. A series of streets running north to south through Soho – Greek, Frith, Dean, Wardour – are Good For Dirty Women. But the majority of a student's time at Knowledge Point is spent in two cramped rooms on the school's ground floor, where maps are arranged on flat tables and angled easels. These rooms are devoted to "calling-over": sitting with a partner, taking turns reciting runs, in an effort to replicate the conditions of oral examinations at the LTPH office. Anytime you step into Knowledge Point you will find students, faces pinched in concentration, calling-over runs in the specialized jargon mandated by Knowledge examiners. A skilled caller – a "woosher," in Knowledge slang – can sound like a slam poet or a rapper, whipping off street names and turnings in a pleasing syncopated rhythm as he races through London streets in his mind's eye: Leave on the right Lillie Road, left Eardley Crescent, left Warwick Road, forward Holland Road, comply Holland Circus, leave by Uxbridge Road, forward and right Shepherd's Bush Green. More often, what you will hear at Knowledge Point is the sound of strain: groans, hems and haws, cursing.

Matt McCabe had been coming to Knowledge Point since he started on the test. A stickler for routine, he arrived each morning at 8:45. When the doors opened at 9, he would sit down across a table from his call-over partner, Steven Vine. I met McCabe and Vine at Knowledge Point one morning and watched them call-over. They spent hours switching off, settling into a patter of run-calling punctuated by mumbled expletives and other exclamations: "good pull" (when you correctly identify a tricky point), "bad drop" (when you forget a point or road that you should know), "nice line" (when your call sketches a nice straight path across the map).

When McCabe finished, he and Vine stretched a ball-bearing chain over the map to assess the straightness of his call. This practice is known as "cottoning the run," a phrase that dates to the days when Knowledge boys would use lengths of cotton twine to measure their runs. "They have a saying, 'Don't let the cotton strangle you,'" McCabe said. "It's a reminder: Don't get too tied up in having the perfect line. You're always trying to calculate: 'Which one would look the prettiest on the map?' But sometimes you just gotta let it flow."

The London landscape throws up constant impediments to the ideal of travelling in a straight line: parks, railway yards, one-way streets. At his late stage of the test process, McCabe found himself facing a novel problem: too much Knowledge. "London now feels very small. At the beginning, you would be standing in Piccadilly and someone says to you, 'Take me to Kilburn,' and you would say: 'Oh my God, that feels miles away.' Now, I can take you endless amounts of ways. And that's the dilemma you've got now: you see too many options."

Seeing, for a Knowledge candidate, is everything – at its heart, the Knowledge is an elaborate exercise in visualisation. When McCabe called-over, he closed his eyes and toggled between views: picturing the city at street level, the roads rolling out in front of him as if in a movie, then pulling the camera back to take in the bird's eye perspective, scanning the London map. Knowledge boys speak of a Eureka moment when, after months or years of doggedly assembling the London puzzle, the fuzziness recedes and the city snaps into focus, the great morass of streets suddenly appearing as an intelligible whole. McCabe was startled not just by that macroview, but by the minute details he was able to retain. "I can pull a tiny little art studio just from the colour of the door, and where it's got a lamppost outside. Your brain just remembers silly things, you know?"

The brains of London taxi drivers have attracted scholarly attention. Eleanor Maguire, a neuroscientist at University College London, has spent 15 years studying cabbies and Knowledge boys. She has discovered that the posterior hippocampus, the area of the brain known to be important for memory, is bigger in London taxi drivers than in most people, and that a successful Knowledge candidate's posterior hippocampus enlarges as he progresses through the test. Maguire's work demonstrates that the brain is capable of structural change even in adulthood. The studies also provide a scientific explanation for the experiences of Knowledge students, the majority of whom have never pursued higher education and profess shock at the amount of information they are able to assimilate and retain.

Historically, taxi driving has been a white working-class industry, dominated by East Londoners: first, the Irish, and later, Cockneys and Jews. For a century at least, the London black taxi has been a vehicle of upward mobility, steering a path into the middle class. Today's Knowledge candidates include a new generation of London strivers. At Knowledge Point, there are nearly as many black and brown faces bent over maps as white ones, and in the clamour of voices calling runs you hear a variety of accents – South Asian, West African, Caribbean – mingling with the broad vowels and glottal stops of Estuary English.

The students are united by shared suffering, and by a common adversary. For a Knowledge boy, the LTPH examiners have a kind of mythic status, inspiring a mixture of fear, resentment and awe. Appearances are highly ritualized. McCabe said: "It's: 'Yes, sir, three bags full, sir.' You can sit in there and before you've even done anything, you've said 'sir' 15 times."

Examiners insist that the formality is important, designed to inculcate a professional code and to prepare future cabbies for the grumpy London public.

Today's Knowledge candidates include a new generation of London strivers. At Knowledge Point, there are nearly as many black and brown faces bent over maps as white ones But there is also humour, of a sort, in the testing room. For generations, Knowledge examiners have seized on the poetry of London nomenclature to craft cheeky runs: Snowman House to the ICE Train, Hamlet Gardens to the Globe Theatre, the Eye (the giant Ferris wheel on the South Bank of the Thames) to the Nose (a tiny sculpture, reputedly modelled on Lord Nelson's nose,

embedded in Admiralty Arch). One examiner, Tony Swire, likes to quiz candidates about their lives and use that information to concoct runs, off the top of his head, that flaunt his own vast London Knowledge. When Swire learned that Matt McCabe's wife was a hairdresser and that his children were named Archie and Lulu, he gave McCabe a run from the Mayfair salon of celebrity hairstylist John Frieda, the ex-husband of Scottish pop singer Lulu, to Archie Street, a tiny dead-end road in Bermondsey. "There's another examiner, Mr. Hall," McCabe said. "He's a tricky one. They have a nickname for him. Everyone calls him the Smiling Assassin."

David Hall is, in fact, quick with a smile. He's 53 years old and bald-headed. He wears rimless glasses and dark suits and ties. I met him one afternoon at the LTPH office. He was sitting at the desk where he conducts examinations, with a large London map and various notes spread out in front of him. "It isn't so bad in here, is it?" he said. He nodded slightly toward the area down the hall where Knowledge candidates wait to be called in for appearances. "You can't believe everything you hear."

Hall knows what it's like to sit on the other side of the examiner's desk. Like all examiners, he is a cabbie, a Knowledge graduate with many years of taxi-driving on his CV. He left school at age 16, and got a job in the confectionery department at

Harrods before becoming an electronics engineer. At age 27, he decided to try for a career as a cabbie. Hall had a keen sense of direction and had always loved maps. He passed the Knowledge in less than two years.

Hall became an examiner in 2008, and soon developed the reputation that earned him the Smiling Assassin moniker: He was a kind man, with a warm, welcoming manner, who asked very difficult runs. Hall is a dedicated pointer. When I told a Knowledge boy that I was planning to interview Mr. Hall, he said: "I heard he went out pointing on Christmas Day."

Hall said: "The thing about London is, it's forever changing. The old city is preserved, of course, but there's always a new city coming forth. There really is no end to the Knowledge. It's infinite."

The test-takers of a century ago who tottered their way to the Knowledge on bicycles earned a heady reward: not just a green badge, but something close to a guaranteed living. Today's Knowledge candidates are banking on that pattern holding, but history seems to be veering in a different direction. These days, a person can walk into the LTPH office and, with relatively minimal effort, acquire a license to drive one of London's 90,000 minicabs, a fleet that vastly outnumbers the approximately 25,000 black taxis. Minicab drivers do not have to demonstrate familiarity with London; an applicant is merely required to pass a background check and take a "topographical test." Minicabs can also offer cheaper fares than taxis, whose metered pricing schemes are strictly regulated.

In theory, there are rules in place that offer advantages to traditional London cabbies: theirs are the only rides that can legally be hailed on the street. But times are changing, and kerbside hailing may soon be as quaint a relic of old London as the clubman striding through Mayfair in his bowler hat and boutonniere. Recently, the London taxi trade has been rocked by the rise of Uber, the smartphone app-based ride-sharing company, and of satnav.

Taxi drivers counter such claims by pointing out that black cabs have triumphed in staged races against cars using satnay. Cabbies contend that in dense and dynamic urban terrain like London's, the brain of a cabbie is a superior navigation tool – that satnay doesn't know about the construction that has sprung up on Regent Street, and that a driver who is hailed in heavily-trafficked Piccadilly Circus doesn't have time to enter an address and wait for his dashboard-mounted robot to tell him where to steer his car.

Ultimately, though, the case to make for the Knowledge may not be practical-economic (the Knowledge works better than Sat-Nav), or moral-political (the little man must be protected against rapacious global capitalism), but philosophical, spiritual, sentimental: The Knowledge should be maintained because it is good for London's soul, and for the souls of Londoners. The Knowledge stands for, well, knowledge – for the Enlightenment ideal of encyclopaedic learning, for the humanist notion that diligent intellectual endeavour is ennobling, an end in itself. To support the Knowledge is to make the unfashionable argument that expertise cannot be reduced to data, that there's something dystopian, or at least depressing, about the outsourcing of humanity's hard-won erudition to gizmos, even to portable handheld gizmos that themselves are miracles of human imagination and ingenuity.

You could also call the Knowledge the greatest tribute a city has ever paid to itself, a love letter more ardent than "I N.Y." or anything else a Chamber of Commerce might cook up. The Knowledge says that London is Holy Writ, a great mystery to be pored over, and that a corps of municipal Talmudists must be delegated to that task. The disappearance of the Knowledge would be an assault on civic memory, a blow, if you will, to historic preservation. Smartphone apps and Google Maps may ensure that Londoners will never again be lost in their own city, but if the Knowledge disappears, will something of London itself be lost – will some essence of the place vanish along with all those guys on mopeds, learning the town's roads and plumbing its depths?

Like most cabbies and Knowledge boys, Matt McCabe worries about the future of the taxi business. But in January 2013, he had more pressing concerns. A few days after his visit to Fish Island, McCabe went on an appearance and scored a B, leaving him with 10 points, just two shy of his goal. Barring a calamity, a brainfreeze, it seemed a foregone conclusion that his next appearance would be his last.

Three weeks later, on a Friday, McCabe rose, as usual, early, with his children, and went through a routine he'd established over many months. He made sure he was cleanly shaven, that his shoes were polished, his suit pristine. He took the train into London, disembarked at London Bridge, and walked to the LTPH office at a measured pace, trying to keep his heart-rate steady. He arrived with time to spare and took his seat in the waiting area with a dozen or so other Knowledge candidates.

At around 2 p.m., McCabe's name was called, and he was ushered into the office of a man he'd never met before. David O'Connor is a veteran examiner with a reputation as a hard marker. McCabe knew that O'Connor liked to test whether candidates had been getting around on the bike, and liked to give runs that worked the centre of the map.

McCabe sat down and breezed through his first three runs. He was nervous, but his calls, he thought, were solid. Surely it was a done deed now? For the session's final run, O'Connor asked McCabe to take him from the Sun and Doves to Emirates Stadium. McCabe closed his eyes. He could see the Sun and Doves: It was a pub on the corner of Coldharbour Lane and Caldecot Road, down in Camberwell. Of course he knew Emirates Stadium, the home of Arsenal, the Premier League football team. McCabe said: "Sun and Doves, Coldharbour Lane. Emirates Stadium, it's Drayton Park. That's the North Bank entrance." O'Connor nodded: the Knowledge boy had identified the points correctly. McCabe closed his eyes again, to make sure he saw the line clearly. Then he called the run:

Leave on the right, Coldharbour Lane Left into Denmark Hill Forward Camberwell Road Forward Walworth Road Comply Elephant and Castle Leave by Newington Causeway Forward Borough High Street Forward over London Bridge Forward into King William Street Forward Lombard Street Forward Bank Junction Forward Prince's Street Forward Moorgate Forward Finsbury Pavement Forward Finsbury Square Forward City Road Comply Old Street roundabout Leave by City Road continued

Right Provost Street Right Vestry Street Left into East Road Forward New North Road Forward Canonbury Road Comply Highbury Corner Leave by Holloway Road Right Drayton Park Set down on the left

It was a nearly seven-mile-long journey, due north, from Camberwell to Holloway, in Islington, north-central London. When McCabe finished the call, he and O'Connor sat in silence for what seemed to McCabe an eternity. Finally, O'Connor stood up and extended his hand. He said: "Well done, Matt. Welcome to the club. I'm pleased to say that you're now one of London's finest." It was the first time in the more than three years McCabe had been coming to LTPH that an examiner had called him by his first name.

"It was an emotional moment," McCabe said. "It was hard to hold back the tears. Three years of complete financial stress, family stress – studying for 13 hours a day, seven days a week. Suddenly, the whole thing was very casual. It was quite, you know, 'Sit back, relax, loosen your tie.' And then Mr. O'Connor was telling me what to expect doing the job. He was giving me his inside knowledge after being a London cabbie for, like, 20-odd years." McCabe went home to his family. He and his wife, Katie, ordered takeaway from a Thai restaurant, put on loud music, and danced around the house with their children. When the kids went to bed, the McCabes drank a few beers and dismantled the Knowledge library: stored the flashcards and pages of notes, took the maps off the wall. Katie, McCabe said, "cried for about two days solid."

McCabe has been driving a taxi for just over a year and a half. He is still new at the job, relatively speaking; in London cabbie lingo, he's a "Butter Boy" – but a boy, a recent Knowledge graduate. He has the leanings of a traditionalist, though. Many cabbies today are opting for new minivan-style Mercedes taxis, or cabs decorated with "full wrap-liveries," advertisements in eye-popping hues. McCabe owns a TX4 Elegance, a car with the classic London black cab look. "I like the iconic shape," he said. "To me, if you're gonna be a London cabbie, that's what you should be driving."

In June, McCabe took part in the demonstration against Uber. He said, "We're trying to be the best in the world, and trying to stay competitive as well. And, you know, the way Uber seems to operate in London – when it's quiet, they do the work for next to nothing, when it's busy, the rates are three times dearer than a London cab."

He said: "What I've done is a trade. A minicab driver, an Uber driver – they won't do the undertaking I done. They won't put in the three years."

"I had a gentleman in the cab recently," McCabe said. "He told me that a couple of nights earlier he'd been eating in a restaurant in Chelsea, and the Uber car turned up. He said, 'We want to go to Wapping.' And the driver said, 'Where's Wapping? Is it in London?' And it's, like, a massive borough. He's never heard of it! So, I picked this guy up. He said, 'Wapping.' I went, 'Yes, sir.' And he said, 'Kennet Street.' I went, 'Yes, sir.' He got in the back, and we were off. And he told me, 'That's why I'm reverting back to London cabs.'"

McCabe is still doing the Knowledge, after a fashion. He's embarked on the three-year course to become a licensed London historian – an official tour guide,

like David Hall. "I'm fascinated with the quirky little bits of London history," McCabe said. "The famous lamps at the Savoy. The secret tunnels that link up to St. James's Palace."

Shortly before McCabe's final appearance, I asked him how he was handling the pressure. He said: "If you overcome the nerves, your training will take over. When I get into that room, I try to think: 'This guy is an examiner, but when he's not sitting here, he's behind the wheel, driving a cab.' He could pick me up tomorrow, you know, or pick my wife up. That calms me down. I think to myself, 'This guy is just a cab driver, same as what I want to be. He's just a London cab driver. He doesn't know everything.'"

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"London risks losing yet another thing that makes it different, special and civilized: the world's best taxis... Thanks to Uber, London cab-driving risks becoming an entry level job for the almost wholly unqualified and uncommitted, the inexperienced, the unskilled and the frankly dangerous. It risks clogging the capital up, not keeping it moving. Letting the company control the market wouldn't be good for Uber users, black cab users or the millions of other Londoners who never use either."

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New York Times Magazine

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