



**Intercultural school**  
Talents pour le monde

# **EPREUVES D'ADMISSION**

## **En premier cycle**

**SESSION D'HIVER 2020**

**LANGUE DE TRAVAIL : ANGLAIS**

## **Epreuve de la matinée : 9h – 13h**

- **Visionnage de la vidéo**
- **Lecture des documents**
- **Synthèse**
- **Traduction**

## I. DOSSIER

### *Doc. 1*

#### **Who's driving? Autonomous cars may be entering the most dangerous phase**

When California police officers approached a Tesla stopped in the centre of a five-lane highway outside San Francisco last week, they found a man asleep at the wheel. The driver, who was arrested on suspicion of drunk driving, told them his car was in “autopilot”, Tesla’s semi-autonomous driver assist system.

In a separate incident this week, firefighters in Culver City reported that a Tesla drove into the back of their parked fire truck as it attended an accident on the freeway. Again, the driver said the vehicle was in autopilot.

The oft-repeated promise of driverless technology is that it will make the roads safer by reducing human error, the primary cause of accidents. However, automakers have a long way to go before they can eliminate the driver altogether.

What’s left is a messy interim period when cars are being augmented incrementally with automated technologies such as obstacle detection and lane centering. In theory, these can reduce the risk of crashes, but they are not failsafe. As a Tesla spokeswoman put it: “Autopilot is intended for use only with a fully attentive driver.”

However, research has shown that drivers get lulled into a false sense of security to the point where their minds and gazes start to wander away from the road. People become distracted or preoccupied with their smartphones. So when the car encounters a situation where the human needs to intervene, the driver can be slow to react.

At a time when there is already a surge in collisions caused by drivers distracted by their smartphones, we could be entering a particularly dangerous period of growing pains with autonomous driving systems.

“People are already inclined to be distracted. We’re on our phones, eating burgers, driving with our knees,” said Nidhi Kalra, senior information scientist at the Rand Corporation. “Additional autonomy gives people a sense that something else is in control, and we have a tendency to overestimate the technology’s capabilities.”

Steven Shladover, of the University of California’s PATH programme, was more sharply critical of car manufacturers: “These companies are overselling the capabilities of the systems they have and the public is being misled.”

Waymo, Google’s self-driving car spin-off, discovered the hands-off problem when it was testing a “level 3” automated driving system – one that can drive itself under certain conditions, but in which the human still needs to takeover if the situation becomes tricky. The next level, four, is what most people consider “fully autonomous”.

During testing, Waymo recorded what its CEO, John Krafcik, described as “sort of scary” video footage of drivers texting, applying makeup and even sleeping behind the wheel while their cars hurtled down the freeway. This led Waymo to decide to leapfrog level 3 automation altogether, and focus on full autonomy instead.

“We found that human drivers over-trusted the technology and were not monitoring the roadway carefully enough to be able to safely take control when needed,” said the company in its 2017 safety report.

Ian Reagan from the Insurance Institute for Highway Safety (IIHS) shares Waymo’s caution, although he acknowledges that the safety potential for automated systems is “huge”.

“There are lots of potentially unintended consequences, particularly with level 2 and 3 systems,” he said, explaining how the IIHS had bought and tested several cars with level 2 automation including vehicles from Tesla, Mercedes and BMW. “Even the best ones do things you don’t expect,” he said.

During tests the IIHS recorded a Mercedes having problems when the lane on the highway forked in two. “The radar system locked onto the right-hand exit lane when the driver was trying to go straight,” he said.

Tesla’s autopilot suffered from a different, repeatable glitch that caused it to veer into the guardrail when approaching the crest of a hill. “If the driver had been distracted, that definitely would have caused a crash,” he said.

Concern over this new type of distracted driving is forcing automakers to introduce additional safety features to compensate. For example, GM has introduced eye-tracking technology to check the driver’s eyes are on the road while Tesla drivers can be locked out of autopilot if they ignore warnings to keep their hands on the steering wheel.

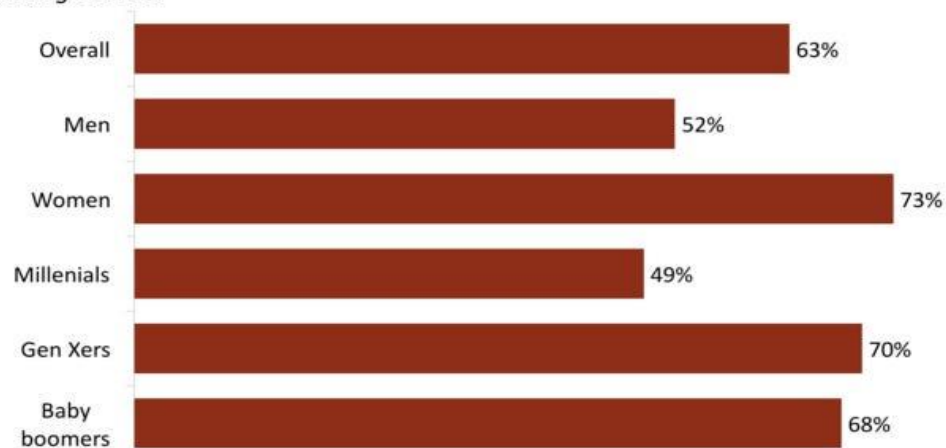
That hasn’t stopped some enterprising owners from finding a way to trick the autopilot warning system by wedging an orange or a water bottle into the steering wheel.

In spite of these problems, Tesla’s CEO, Elon Musk, remains bullish about his company’s autonomous technology, even suggesting that by 2019 drivers would be able to sleep in their cars – presumably without being arrested by highway patrol officers.

## Doc. 2

### Many US Drivers Wouldn't Trust Fully Autonomous Vehicles

Percentage of US Drivers who would be afraid to ride in a fully self-driving vehicle.



## **Doc. 3**

### **Why we should embrace our driverless future**

*The driverless car is the next revolution in transport and the Midlands is well placed to take advantage*

To say the announcement that driverless cars will be tested on the roads of Birmingham has been greeted with mixed responses would be an understatement.

The government clearly believes the UK should be at the forefront of this technology – which is why it committed £51 million over two years to a string of research and testing projects, most of which are based here in the Midlands or within easy reach at Birmingham, Coventry, Nuneaton, Oxfordshire and Milton Keynes.

We are not alone – similar tests are under way in cities in the US, Far East and mainland Europe.

And the car industry is now moving behind these developments, with the chief executives of major manufacturers, including JLR and Hyundai, saying that fully autonomous vehicles are no longer a distant prospect.

There will be disruption – would you advise a teenager to learn to get an HGV<sup>1</sup> licence or look forward to a long career as a cabbie<sup>2</sup> now?

There is the impact on car ownership. It is already declining among young people, partly because insurance is prohibitively expensive and partly because, for those in big cities, public transport and the likes of Uber are enough.

And now we have increasing taxes and charges on polluting cars. Diesel and petrol vehicles will be outlawed by 2040.

In 2017 London introduced a £10 toxicity charge for older diesel vehicles and is believed to be making bolder plans for anti-pollution, or as some see it, anti-car charges.

These will further accelerate the decline of the personal vehicle.

Our own West Midlands mayor, Andy Street, has made no secret of his desire to take strong action to get diesel cars off the roads and we await details of that action.

Much of the developed western world is taking or considering similar responses to pollution and congestion.

Mr Street also boldly declared the individual self-driven car as the technology 'of yesteryear' at a recent summit and said cities need to be preparing for a revolution in transport.

It's a brutal assessment for Birmingham, which once marketed itself as motor city during the heyday of Leyland, Rover and Austin.

The evidence is that autonomous vehicles are likely to cause as large a revolution in travel as Henry Ford did 100 years ago with his mass produced cars.

The prevailing thought is that, like a cab, we will simply hail, via an app, the nearest driverless car to take us where we want to go.

Our personal cars spend 95 per cent of their time parked up anyway – a hugely inefficient way of organising transport.

If we no longer own a car, what would be the point of having a driveway in front of the house?

Out-of-town shopping centres will no longer need car parks the size of multiple football pitches.

And this is likely to happen in the next decade or so. With roads cleared of double parked cars, and queues on major routes slashed it should be easier to get about – whether on bike, foot or in a driverless vehicle.

So the mood is changing and those of us in big cities with fairly decent public transport available will find it easier to adjust.

But the public remain to be convinced. Social media responses to the announcement were split among those for who driverless cars cannot come soon enough and those who fear them.

Most accidents are a result of human error and we all see the drivers on their mobile phones or fiddling with radios, oblivious to what is actually happening in front of them. We also have those who wilfully speed or drive while drunk or high.

The AIs, artificial intelligence, controlling cars will be more thoroughly attentive and are expected to slash accident rates.

While some raise extreme fears of a Terminator-style takeover, there are more genuine concerns over the ability of malicious hackers to take control – so strong security will be crucial in ensuring safety.

There were similar fears when trains and then cars replaced the horse and cart in the 19th and 20th centuries.

That is why the real world testing – here in the Midlands – will be crucial, not only in ensuring the technology works but also in proving to a skeptical public that it works.

<sup>1</sup>HGV = Heavy Good Vehicle – a truck or lorry used for large-scale, long distance deliveries.

<sup>2</sup>Cabbie = A cab driver

## Doc. 4

Among drivers who **WANT SEMI-AUTONOMOUS FEATURES** on their next vehicle, their primary motivation is:



Among drivers who **DO NOT WANT SEMI-AUTONOMOUS FEATURES** on their next vehicle cite the following reasons:



 [NewsRoom.AAA.com](http://NewsRoom.AAA.com)

## Doc. 5



## II. SYNTHÈSE

*Vous réaliserez une synthèse en langue anglaise en vous appuyant sur les documents du dossier. Vous veillerez à ne pas dépasser 400 mots.*

### III. TRADUCTION

*Vous traduirez vers votre langue maternelle l'extrait suivant du Doc. 1*

Research has shown that drivers get lulled into a false sense of security to the point where their minds and gazes start to wander away from the road. People become distracted or preoccupied with their smartphones. So when the car encounters a situation where the human needs to intervene, the driver can be slow to react.

At a time when there is already a surge in collisions caused by drivers distracted by their smartphones, we could be entering a particularly dangerous period of growing pains with autonomous driving systems.

“People are already inclined to be distracted. We’re on our phones, eating burgers, driving with our knees,” said Nidhi Kalra, senior information scientist at the Rand Corporation. “Additional autonomy gives people a sense that something else is in control, and we have a tendency to overestimate the technology’s capabilities.”

Steven Shladover of the University of California’s PATH programme, was more sharply critical of car manufacturers: “These companies are overselling the capabilities of the systems they have and the public is being misled.”

Waymo, Google’s self-driving car spin-off, discovered the hands-off problem when it was testing a “level 3” automated driving system – one that can drive itself under certain conditions, but in which the human still needs to takeover if the situation becomes tricky. The next level, four, is what most people consider “fully autonomous”.

During testing, Waymo recorded what its CEO, John Krafcik, described as “sort of scary” video footage of drivers texting, applying makeup and even sleeping behind the wheel while their cars hurtled down the freeway. This led Waymo to decide to leapfrog level 3 automation altogether, and focus on full autonomy instead.

“We found that human drivers over-trusted the technology and were not monitoring the roadway carefully enough to be able to safely take control when needed,” said the company in its 2017 safety report.

Ian Reagan from the Insurance Institute for Highway Safety (IIHS) shares Waymo’s caution, although he acknowledges that the safety potential for automated systems is “huge”.



## Epreuve de l'après-midi :

### **IV. REDACTION**

*Un des arguments principaux en faveur des voitures sans conducteur consiste à dire qu'ils éliminent l'erreur humaine, ce qui améliore la situation sur les routes pour tout le monde. Pensez-vous qu'un monde avec beaucoup plus d'automatisation (dans tous les aspects de notre vie et pas que dans le domaine des automobiles) créerait un monde plus sûr pour les êtres humains ?*

*Votre rédaction, écrite dans votre langue maternelle, ne devrait pas excéder 500 mots.*