

Still no flying cars? The future promises something better

Level 3 • Advanced

1 Warmer

Which of the following would you like to own and why?

- an electric car
- a driverless car
- a flying car

2 Key words

Fill the gaps in the sentences using these key words from the text.

congestion
intriguing

carpooling
connectivity

commute
far-fetched

sustainability
commonplace

augment
shuttle

1. If something is described as _____, it is difficult to believe because it is very unlikely.
2. A _____ is the journey to and from work every day.
3. _____ is a situation in which a place is crowded with vehicles.
4. _____ is the process of using methods that do not damage the environment.
5. To _____ something is to increase the size, amount or value of it.
6. _____ is the ability of computers and other types of electronic equipment to connect successfully with other computers or programs.
7. If something is described as _____, it happens very often and is therefore not unusual.
8. If something is described as _____, it is very interesting, especially because of being strange or mysterious.
9. _____ is a system in which a group of car owners travel together so that only one car is used.
10. A _____ is a bus, train or plane that makes frequent journeys between two places.

3 What do you know?

Decide whether these statements are true (T) or false (F). Then, check your answers in the text.

1. Google began testing driverless cars in 2012.
2. The average age of cars on the road is 1.5 years.
3. The film *Back to the Future II* was made in 2000.
4. A millennial is someone born in the mid-20th century.
5. Uber is a taxi-sharing service.
6. Traffic lights cannot detect when a car is approaching.

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Still no flying cars? The future of transit promises something even better

From driverless cars to environmentally friendly vehicles, here are a few ways that technology promises to revolutionize the transportation industry

Alison Moodie

2 November, 2015

- 1 We may not yet be living in an age of flying cars, as predicted in the 1985 film *Back to the Future II*, but the rise of smartphones and other new technologies is creating a reality that is arguably as exciting and almost as far-fetched. Experts agree that economic and demographic changes, technological advances, and environmental concerns are fundamentally altering the transportation landscape. "It's a very dynamic time," said Robert Puentes, of the Brookings Institution's Metropolitan Policy Program think-tank. "There's a focus on a tighter connection between the role of transportation and the economic health of cities and its impact on people."
- 2 As the average US commute lengthens and the country's infrastructure ages badly, cities across the US are being forced to redefine what transportation is. Increasingly, urban planners, transportation experts and scientists are realizing that old auto-centric models focused on easing traffic congestion aren't enough to tackle issues like population growth and carbon emissions, and transportation is now, more than ever, an integral component of a city's larger sustainability efforts.
- 3 Big US cities like Los Angeles, Seattle and Chicago are working to make better use of their streets by adding more bus lanes, augmenting pedestrian walkways and expanding their rail options, while at the same time working with the private sector on advanced technologies that will allow a vehicle to drive itself and communicate with other vehicles and its environment, essentially making transportation intelligent. "The most sustainable places to live are those places that have multi-modal transport systems," Puentes said. "You can't be a global competitive city if you don't have a robust transportation network."
- 4 Here are three of the key trends that experts predict will shape the transportation industry over the coming years.

Connectivity

- 5 The rise of ride-sharing services like Uber and Lyft – essentially taxis booked at the click of a smartphone button – and apps like Waze, which uses real-time traffic data to find the quickest routes for drivers, are dramatically changing how people get around and affecting the very way in which traffic moves through a city. Communication between riders and drivers, between different vehicles and between cars and infrastructure is bringing transportation into a new era, according to Allan Clelland, an expert on transportation technology.
- 6 According to a recent study from the UCLA's Institute of Transportation Studies, vehicle travel has declined among millennials – individuals born roughly between the early 1980s and early 2000s – compared to previous generations. According to the study, those born in the 1990s are making 4% fewer car trips and travelling 18% fewer miles per year, on average, than members of previous generations did at the same stage in their lives.
- 7 Meanwhile, those still driving cars are dealing with less traffic thanks to Waze. Experts say the traffic app has eased congestion on motorways and reduced travel times for drivers but also led to a problematic rise in cars moving through residential neighbourhoods. This has angered residents, who claim the increased traffic on their quiet roads reduces their quality of life.
- 8 This trend could continue as vehicle-to-vehicle data communication, as well as communication between vehicles and the surrounding infrastructure, grows. Currently, a traffic light can detect when a car is approaching but that's about it. Companies are working to develop technology that will enable a vehicle to tell traffic control systems not only that it is present but also where it is going and how fast it is travelling.

Automation

- 9 Driverless cars have been in the headlines ever since Google began road testing the vehicles back in 2012 but no-one really knows when driverless cars will become commonplace. However, the partial automation of cars is already underway. Alexandre Bayen of the University of California expects automation will progress in stages: first, there might be automated buses with their own lanes, then perhaps lorries in ports or mining towns: essentially, vehicles that are connected electronically and travel in single file.

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- 10 The idea of a fully automated transportation system is intriguing because it has the potential to improve safety by removing human error and increase the efficiency of car owners, who can get on with other tasks during a long commute. It can also help reduce carbon emissions and traffic congestion and allow more people access to cars. But, even if driverless technology were ready to hit the roads now, it would take a long time to get fully automated given the average age of cars on the road is 11.5 years old.
- 11 To see what driverless cars might look like in action, go to the video at: vimeo.com/37751380.

Environmental concern

- 12 As the world races to avoid catastrophic climate change, and countries, states and cities work to meet ambitious emissions goals, these policies could also have a big impact on the future of transportation, spurring everything from zero- and low-emission vehicles to apps that encourage more walking, biking and carpooling.
- 13 Sharon Feigon, executive director of the Shared Use Mobility Center, envisages a future where a person can use a transit pass that gives them access to numerous modes of transport in a given day. If their train is delayed, for instance, they can access a city bike, take a shuttle or rent a vehicle through a car share programme using the same pass. "We're going to see these systems packaged together and make it as easy as possible to connect them up with each other so people can transfer seamlessly between them," she said.
- 14 When considering the future of transportation, it's also important to keep in mind why people travel: they may be going to work, to meet friends or family, or to do the shopping. Technologies and trends that reduce the need for those trips – say, virtual meetings or telecommuting – could also have a big impact on transportation.
- 15 There was a time when the idea of a flying car represented the height of innovation but the technologies being imagined and developed now could be seen as even more sophisticated – and more useful in tackling the social and environmental threats that we face over the coming decades."

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4 Comprehension check

Choose the best answer according to the text.

- What effects might a fully automated transportation system have?
 - More people will use public transport.
 - It will make roads less safe but will reduce pollution and traffic problems.
 - It will make roads safer and reduce pollution and traffic problems.
- What effect could ambitious emissions goals have?
 - They could encourage people to buy driverless cars.
 - They could encourage people to use buses instead of cars.
 - They could encourage more walking, biking and carpooling.
- Why are some residents angry?
 - because traffic apps like Waze have led to more traffic using roads in residential neighbourhoods
 - because driverless cars have led to more traffic congestion
 - because apps like Waze have led to slower travel times for drivers
- What could have a big impact on transportation?
 - technologies that reduce the need for people to travel
 - technologies that enable cars to fly
 - technologies that improve the economic health of cities

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5 Find the word

Find the following words or phrases in the text.

1. a verb meaning *make a problem, bad situation or pain less severe* (para 2)
2. an adjective meaning *strong and successful* (para 3)
3. a verb meaning *influence the way a person, idea or situation develops* (para 4)
4. a two-word noun phrase meaning *a line of people or things in which one is directly behind the other* (para 9)
5. a two-word noun phrase meaning *a mistake made by a person controlling a machine or process rather than something wrong with the machine or process itself* (para 10)
6. a verb meaning *encourage or cause something to happen* (para 12)
7. a verb meaning *consider something as possible or what you intend* (para 13)
8. an adverb meaning *changing very smoothly and without stopping* (para 13)

6 Verb + noun collocations

Match the verbs in the left-hand column with the noun phrases in the right-hand column.

- | | |
|-------------|-------------------------------------|
| 1. ease | a. technology |
| 2. tackle | b. access to something |
| 3. develop | c. social and environmental threats |
| 4. increase | d. an impact |
| 5. allow | e. traffic congestion |
| 6. have | f. the efficiency of something |

7 Word-building

Complete the sentences with the correct form of the word in brackets at the end of each sentence.

1. _____ advances and environmental concerns are fundamentally altering the transportation landscape. [TECHNOLOGY]
2. _____, urban planners are realizing that the old auto-centric models aren't working. [INCREASE]
3. The most _____ places to live are those that have multi-modal transport systems. [SUSTAIN]
4. Uber and Waze are _____ changing how people get around. [DRAMA]
5. Waze has led to a _____ rise in cars moving through residential neighbourhoods. [PROBLEM]
6. The _____ automation of cars is already underway. [PART]

8 Discussion

Discuss the following statements.

- Driverless cars are the perfect solution. What could possibly go wrong?
- Petrol and diesel vehicles should be made illegal because they damage the environment.
- Everyone should use public transport and private vehicles should be banned.

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KEY

2 Key words

1. far-fetched
2. commute
3. congestion
4. sustainability
5. augment
6. connectivity
7. commonplace
8. intriguing
9. carpooling
10. shuttle

3 What do you know?

11. T
12. F
13. F
14. F
15. T
16. F

4 Comprehension check

17. c
18. c
19. a
20. a

5 Find the word

21. ease
22. robust
23. shape
24. single file
25. human error
26. spur
27. envisage
28. seamlessly

6 Verb + noun collocations

29. e
30. c
31. a
32. f
33. b
34. d

7 Word-building

35. technological
36. increasingly
37. sustainable
38. dramatically
39. problematic
40. partial