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Ready-to-use ESL/EFL Lessons by Sean Banville

Google testing self-driving car

http://www.breakingnewsenglish.com/1010/101011-self-driving_car.html

Contents

11th October, 2010

THE ARTICLE

Google is testing a car it believes is the future of motoring. The Internet giant has been testing the car that drives itself for several months. It has driven along thousands of miles of public roads in California. The car is guided by sensors, lasers and video cameras. A Google spokesperson explained to concerned motorists that the car has never been driven "unmanned," and had test drivers, just in case things went wrong. The tech company says its vehicles are still "very much at the experimental stage". Google's interest in artificial intelligence is a sign that it wants to branch out beyond the web. It is an extension of its Street View project, in which millions of streets have been photographed and put online.

Google's blog said the company's entry into the world of automotive technology is part of its plans to make the world a better place. "Larry [Page] and Sergey [Brin] founded Google because they wanted to help solve really big problems using technology," it wrote. The post continued: "One of the big problems we're working on today is car safety and efficiency. Our goal is to help prevent traffic accidents, free up people's time and reduce carbon emissions by fundamentally changing car use." Google CEO Eric Schmidt said last month that it was unfortunate that cars were invented before computers: "Your car should drive itself; it's amazing to me that we let humans drive cars," he told reporters.

WARM-UPS

1. FUTURE CARS: Walk around the class and talk to other students about cars of the future. Change partners often. Sit with your first partner(s) and share your findings.

2. CHAT: In pairs / groups, decide which of these topics or words from the article are most interesting and which are most boring.

Google / testing / public roads / sensors / motorists / experimental / intelligence / technology / a better place / solve big problems / efficiency / carbon emissions / cars

Have a chat about the topics you liked. Change topics and partners frequently.

3. SELF-DRIVING: What similar technology could help us? Complete this table with your partner(s). Change partners and share what you wrote. Change and share again.

Self-…	How would this help us?	Any problems?
doing homework		
cooking dinner		
downloading PC		
reading books		
cleaning house		
walking dog		

4. COMPUTERS: Students A **strongly** believe the roads would be safer if computers drove cars; Students B **strongly** believe the opposite. Change partners again and talk about your conversations.

5. BIG PROBLEMS: Which of these do we need to solve? Rank these and share your rankings with your partner. Put the most important at the top. Change partners and share your rankings again.

- traffic congestion
- air pollution
- rubbish and waste everywhere
- viruses and superbugs

- lack of clean water
- the digital divide
- Internet privacy
- shortage of energy

6. GOOGLE: Spend one minute writing down all of the different words you associate with the word 'Google'. Share your words with your partner(s) and talk about them. Together, put the words into different categories.

BEFORE READING / LISTENING

From http://www.BreakingNewsEnglish.com/1010/101011-self-driving_car.html

1. TRUE / FALSE: Read the headline. Guess if a-h below are true (T) or false (F).

a.	Google is testing a new car and has named it the "Internet Giant".	T / F
b.	The car has already been driven on public roads in the USA.	T / F
c.	Most of the self-driving cars are tested without people in them.	T / F
d.	Google wants to diversify into areas outside of the Internet.	T / F
e.	Google's leaders aim to improve the world by using technology.	T / F
f.	Google says safety on the roads is one of the world's big problems.	T / F
g.	Google doesn't want to change the way we use our cars.	T / F
h.	Google's CEO believes we should not let computers drive cars.	T / F

2. SYNONYM MATCH: Match the following synonyms from the article.

1.	motoring		a.	diversify
2	giant		b.	basically
3.	concerned		c.	colossus
4.	branch out		d.	addition
5.	extension		e.	worried
6.	plans		f.	answer
7.	solve		g.	driving
8.	prevent		h.	strategy
9.	fundamentally		i.	regrettable
10.	unfortunate		j.	stop

3. PHRASE MATCH: (Sometimes more than one choice is possible.)

1.	the future		a.	experimental stage
2	testing the car that		b.	itself
3.	just in case things		c.	drives itself
4.	very much at the		d.	of motoring
5.	millions of streets have		e.	big problems
6.	the world of automotive		f.	accidents
7.	help solve really		g.	been photographed
8.	help prevent traffic		h.	emissions
9.	reduce carbon		i.	went wrong
10.	Your car should drive		j.	technology

WHILE READING / LISTENING

GAP FILL: Put the words into the gaps in the text.

Google is testing a car it believes is the _____ of motoring. The Internet giant has been testing the car that drives _____ for several months. It has driven along thousands of miles of public roads in California. The car is _____ by sensors, lasers and video cameras. A Google spokesperson explained to _____ motorists that the car has never been driven "unmanned," and had test drivers, just in case things went _____. The tech company says its vehicles are still "very much at the experimental stage". Google's interest in _____ intelligence is a sign that it wants to branch out _____ the web. It is an extension of its Street View project, in which millions of streets have been photographed and _____ online.

wrong

guided

beyond

future

put

itself

artificial

concerned

Google's blog said the company's _____ into the world of automotive technology is part of its _____ to make the world a better place. "Larry [Page] and Sergey [Brin] founded Google because they wanted to help _____ really big problems using technology," it wrote. The post continued: "One of the big problems we're working _____ today is car safety and efficiency. Our goal is to help prevent traffic accidents, _____ up people's time and reduce carbon emissions by fundamentally changing car _____." Google CEO Eric Schmidt said last month that it was unfortunate that cars were invented _____ computers: "Your car should drive itself; it's _____ to me that we let humans drive cars," he told reporters.

before

solve

use

entry

on

plans

amazing

free

LISTENING – Listen and fill in the gaps

Google is testing a car it believes is _____. The Internet giant has been testing the car that drives itself for several months. _____ thousands of miles of public roads in California. The car is _____, lasers and video cameras. A Google spokesperson explained to concerned motorists that the car has never been driven "unmanned," and had test drivers, just _____ wrong. The tech company says its vehicles are still "_____ experimental stage". Google's interest in artificial intelligence is a sign that it _____ beyond the web. It is an extension of its Street View project, in which millions of streets have been photographed and put online.

Google's blog said the company's _____ of automotive technology is part of its plans to make the world a better place. "Larry [Page] and Sergey [Brin] founded Google because they _____ really big problems using technology," it wrote. The post continued: "One of the big problems we're working on today is car safety and efficiency. Our goal is to help _____, free up people's time and _____ by fundamentally changing car use." Google CEO Eric Schmidt said last month that _____ cars were invented before computers: "Your car should drive itself; it's amazing to me that we _____," he told reporters.

AFTER READING / LISTENING

1. WORD SEARCH: Look in your dictionary / computer to find collocates, other meanings, information, synonyms … for the words 'artificial' and 'intelligence'.

artificial	intelligence

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.

2. ARTICLE QUESTIONS: Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with other classmates / groups.
- Ask your partner / group your questions.

3. GAP FILL: In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning…?

4. VOCABULARY: Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.

5. TEST EACH OTHER: Look at the words below. With your partner, try to recall how they were used in the text:

• future	• plans
• giant	• solve
• guided	• post
• case	• safety
• branch	• use
• millions	• unfortunate

STUDENT GOOGLE SURVEY

Write five GOOD questions about Google in the table. Do this in pairs. Each student must write the questions on his / her own paper.
When you have finished, interview other students. Write down their answers.

	STUDENT 1 _____	STUDENT 2 _____	STUDENT 3 _____
Q.1.			
Q.2.			
Q.3.			
Q.4.			
Q.5.			

- Now return to your original partner and share and talk about what you found out. Change partners often.
- Make mini-presentations to other groups on your findings.

GOOGLE DISCUSSION

<u>STUDENT A's QUESTIONS</u> (Do not show these to student B)

a)   What did you think when you read the headline?

b)   What springs to mind when you hear the word 'Google'?

c)   What do you think of the self-driving car?

d)   What do you think is the future of motoring?

e)   Do you think it's OK that these cars are being tested on public roads?

f)   Would you feel safe in a computer-driven car?

g)   Would you prefer to drive a car or be driven by a car computer?

h)   What do you think of artificial intelligence? How much is around us?

i)   What do you know about Google Street View and Google Earth?

j)   Do you think it's a good idea for Google to branch out?

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GOOGLE DISCUSSION

<u>STUDENT B's QUESTIONS</u> (Do not show these to student A)

a)   Did you like reading this article?

b)   Has Google already made the world a better place?

c)   What would you like Google to do to make the world a better place?

d)   What are the world's big problems?

e)   How is road safety in your country?

f)   How can the self-driving car do everything Google says it will?

g)   What problems might there be with computers driving cars?

h)   What other things would you like computers to do for us?

i)   Is it unfortunate that cars came along before computers?

j)   What questions would you like to ask Google's CEO?

LANGUAGE – MULTIPLE CHOICE

From http://www.BreakingNewsEnglish.com/1010/101011-self-driving_car.html

Google is testing a car it (1) _____ is the future of motoring. The Internet giant has been testing the car that drives (2) _____ for several months. It has driven along thousands of miles of public roads in California. The car is guided (3) _____ sensors, lasers and video cameras. A Google spokesperson explained to concerned motorists that the car has never been driven "unmanned," and had test drivers, just (4) _____ case things went wrong. The tech company says its vehicles are still "very (5) _____ at the experimental stage". Google's interest in artificial intelligence is a sign that it wants to (6) _____ out beyond the web. It is an extension of its Street View project, in which millions of streets have been photographed and put online.

Google's blog said the company's entry into the world of automotive technology (7) _____ part of its plans to make the world a better place. "Larry [Page] and Sergey [Brin] founded Google because they wanted to help solve really big problems (8) _____ technology," it wrote. The post continued: "One of the big problems we're working on today is car safety and (9) _____. Our goal is to help prevent traffic accidents, free (10) _____ people's time and reduce carbon emissions by (11) _____ changing car use." Google CEO Eric Schmidt said last month that it was (12) _____ that cars were invented before computers: "Your car should drive itself; it's amazing to me that we let humans drive cars," he told reporters.

Put the correct words from the table below in the above article.

1.	(a)	believes	(b)	beliefs	(c)	believable	(d) believing
2.	(a)	its	(b)	itself	(c)	self	(d) it
3.	(a)	on	(b)	at	(c)	by	(d) in
4.	(a)	at	(b)	by	(c)	so	(d) in
5.	(a)	many	(b)	most	(c)	more	(d) much
6.	(a)	twig	(b)	bough	(c)	branch	(d) trunk
7.	(a)	is	(b)	are	(c)	will	(d) would
8.	(a)	useful	(b)	using	(c)	uses	(d) used
9.	(a)	efficiently	(b)	efficient	(c)	efficiency	(d) inefficient
10.	(a)	up	(b)	down	(c)	over	(d) around
11.	(a)	fundamental	(b)	fundamentals	(c)	fundamentally	(d) fund
12.	(a)	unfortunates	(b)	unfortunate	(c)	unfortunately	(d) misfortunes

WRITING

From http://www.BreakingNewsEnglish.com/1010/101011-self-driving_car.html

Write about **Google** for 10 minutes. Correct your partner's paper.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

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_____

HOMEWORK

1. VOCABULARY EXTENSION: Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.

2. INTERNET: Search the Internet and find out more about Google's self-driving car project. Share what you discover with your partner(s) in the next lesson.

3. GOOGLE: Make a poster about Google. Show your work to your classmates in the next lesson. Did you all have similar things?

4. THE CAR: Write a magazine article about Google's self-driving car. Include imaginary interviews with people who are for and against it.

Read what you wrote to your classmates in the next lesson. Write down any new words and expressions you hear from your partner(s).

5. LETTER: Write a letter to Google's CEO. Ask him three questions about the self-driving car. Give him three of your opinions on it. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

TRUE / FALSE:

a. F   b. T   c. F   d. T   e. T   f. T   g. F   h. F

SYNONYM MATCH:

1.	motoring		a.	driving
2	giant		b.	colossus
3.	concerned		c.	worried
4.	branch out		d.	diversify
5.	extension		e.	addition
6.	plans		f.	strategy
7.	solve		g.	answer
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PHRASE MATCH:

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4.	very much at the		d.	experimental stage
5.	millions of streets have		e.	been photographed
6.	the world of automotive		f.	technology
7.	help solve really		g.	big problems
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9.	reduce carbon		i.	emissions
10.	Your car should drive		j.	itself

GAP FILL:

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LANGUAGE WORK

1 - a   2 - b   3 - c   4 - d   5 - d   6 - c   7 - a   8 - b   9 - c   10 - a   11 - d   12 - b