

## Humans vs. self-driving cars?

**Level:** Advanced (C1-C2)

**Time:** Approximately 90 minutes

**Overview:** This article discusses some of the problems with automated vehicles and the author's opinion of self-driving cars at the current level of technology.

**Business topics:** Technology, social science

**Business language:** Useful vocabulary, business-related collocations

**Activities:** Key words, understanding the text, business language, discussion, debate on the pros and cons of automation

**Groups:** Whole class, one-to-one, small groups

**Key:**

- |                  |                |
|------------------|----------------|
| 1. deal with     | 7. disengage   |
| 2. halfway-house | 8. complacency |
| 3. bully         | 9. wander      |
| 4. leapfrog      | 10. background |
| 5. gaze          | 11. encounter  |
| 6. sector        | 12. zone out   |

### 3. Understanding the article

- a. After students read the article, ask them to identify key words in the statements. Then ask them to scan the text again to find the relevant information for preparing their answers to the questions. You could have them discuss and prepare their answers in pairs before going through the questions with the whole class. When checking the answers, ask students to use information from the text to justify their answers. Paragraph numbers are listed in the key for easy reference.

**Key:**

*Suggested answers:*

1. *She tells an amusing personal story about her young daughter. (paragraphs 1-2)*
2. *Partial automation is being used in many industries, including in the technology and health sectors. 'Automation complacency' could be very dangerous if, for example, a surgeon didn't notice when automated equipment wasn't functioning correctly during an operation. (paragraph 3)*
3. *She explains that when humans are using partially automated systems, they begin to trust them too much and their attention begins to wander. They often don't realize that it's necessary to take over from the machine until it's too late. (paragraph 5)*
4. *They recommend things like steering wheels that detect whether people are holding them and cameras that detect the direction of a driver's gaze as well as head posture. Most new cars have alerts to indicate that a driver is not paying attention to the road. (paragraph 8)*
5. *They trusted the automation too much and thought that the car would avoid the object in the*

### 1. Warmer

- a. Students discuss the questions in pairs or small groups. Then ask students to share their experiences and opinions with the rest of the group. You may want to write some useful words and phrases on the board before they begin to help them express their ideas (e.g. *In my opinion ... I think ... From my point of view ... I am convinced that ...*). You may also want to recommend that they take notes during the discussion of questions 2 and 3 because they will be referring back to their notes when preparing their debate at the end of the lesson.

### 2. Key words

- a. Ask students to find and highlight the relevant parts of the article and compare them with each part of the statements. Have them share their answers in pairs or small groups before eliciting answers from the whole class.

road. When they realized that the car wouldn't avoid it, it was too late and they crashed into it. (paragraphs 10-11)

6. She thinks cars should have less automation so that drivers have to be more alert and involved in driving. She thinks this will be safer until automation technology is much better and there are almost no errors. (paragraph 12)

## 4. Business language – collocations

- a. Ask students to work in pairs to complete the activity. Then regroup them so they compare their answers in small groups before checking answers with the whole class.

**Key:**

1. follow-up interviews
2. worth noting
3. prove troublesome
4. edge back
5. manufacturing processes
6. run studies
7. embrace the concept
8. safety bodies

- b. Ask students to complete the task in small groups.

**Key:**

1. edge back
2. run / studies
3. manufacturing processes
4. follow-up interviews
5. worth noting
6. prove troublesome
7. safety bodies
8. embrace the concept

## 5. Discussion

- a. Put students in pairs or small groups and ask them to discuss the ideas from the article. When they have covered all the points, bring the whole class back together so that they can share their answers and any interesting information that arose from their discussions.

## 6. Wider business theme – The pros and cons of automation

- a. Note that having a debate to support one's opinion is good practice in the area of communication, which involves defending ideas.

First, ask students to read the pros and cons of automation and check that they understand the vocabulary and the general meaning of each point.

Then put students in groups and assign *Pro* or *Con* to each group. Have them prepare a debate to argue for or against automation in business and industry. Point out that they need to consider all of the opposing points so that they can argue against them.

Give the groups time to prepare their ideas and encourage them to do research if necessary to support their points. When they are ready, ask opposing groups to argue their cases. Remind them to listen carefully to the opposing team and to take notes. In a debate, it is important to respond to the other side and not simply to list your team's prepared points.