#### **BUSINESS LESSON**



## THE BIG DEBATE ON THE FUTURE OF WORK

#### **TEACHER'S NOTES**

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The Big Debate on the Future of Work

https://www.esldebates.com/business-the-big-debate-on-the-future-of-work/

### Vocab matching answers

- 1. b
- 2. f
- 3. d
- 4. c 5. a
- 6. i
- 7. h
- 8. e
- 9. g
- 10. j

#### Video Answers.

- 1. She is Senior Economist at the Economic Policy Institute.
- 2. No, she is not.
- 3. There was a spike of automation anxiety when machines were starting to take over jobs on farms and also in factories.
- 4. It surged again in the late 1950s and early 1960s.
- 5. It was about 17,000 longshoremen who were protesting automation on the piers.
- 6. Because there are not many of them left. Technology destroyed a lot of those jobs.
- 7. During this period, technology has displaced some 8 million farmers in the US, 7 million factory workers, over 1 million railroad workers, hundreds of thousands of telephone operators, gas-pumpers, elevator attendants, travel agents, etc. Tons of jobs have died.
- 8. New technology creates jobs in a few ways: there are the direct jobs for people who design and maintain the technology. Indirectly, when companies can do more with less, they can expand, add new products, open new locations and they can lower prices to compete. That means consumers can buy more of their products, too.
- 9. Yes, it has. This process is how the standard of living has improved over time –and it has always required workers.
- 10. According to researchers at Oxford, 47% per cent of US jobs will be replaced by robots in the next decade or two.

# Warmer questions

- When was the last time you took a taxi or cab?
- How much is too much to pay for someone who drives you to where you want to go?
- In your daily life have you seen an increase in the number of automation in businesses? For example, using a touchscreen instead of getting help from a waiter or speaking to a machine on the phone instead of an operator.

# **Reading section**

## The robots are coming

Rising labour costs and the perennial quest for productivity are driving businesses to automate. Technology is playing a critical role in helping humans work more efficiently. Since automation has become an essential part of business operations, robots are soon going to replace many jobs that are today performed by humans. The ongoing assimilation of robots into the workforce seems an inexorable reality, and so might be the unemployment of a significant number of human workers. Finding new positions for redundant employees will definitely be the resulting challenge.





The Addison Lee Group has created a strategic alliance with Oxbotica to offer self-driving services in the UK capital by the year 2021. While there is general excitement surrounding autonomous vehicles, concerns have been raised regarding safety. In March, for example, one of Uber's autonomous vehicles killed a pedestrian in Tempe, Arizona.

However, research states that while automation could displace roughly 7 million jobs in the UK, it could also create 7.2 million jobs, resulting in a boost in the order of 200,000 jobs.

There is much debate as to whether the economy as it currently exists is able to create an equitable system where people can work fewer hours and yet be able to survive. Many say that the economy and society will be able to survive and allow people to move to other forms of jobs.

The change will encourage huge numbers of people to retrain or learn new trades. Others, however, say that the change will be very different from the move between an agricultural economy and a manufacturing one. The problem many are saying is that this change will lead to a level of employment uncertainty that many in the population are unable to navigate. For example, is it possible for everyone to become engineers, programmers, and data scientists so that automated services can be maintained or expanded? The chances are that not everyone can become one, even half the population may not be able to.



Coupled with this fact, AI is increasingly being used to design CPUs, code programs, and design airplanes. Many middle-class jobs and professional services will be affected. IBM's Watson AI software service is currently deployed in Japanese insurance companies. Its first installation replaced 21 office workers. They also have plans to move into healthcare, thus replacing the need for human doctors. Though the future is unknown, what is certain, AI and automation will be a path which humanity has never crossed before.

## Questions to consider:

- Automated systems have replaced a lot of jobs in the last decades. But, is automation truly to blame for unemployment?
- Although automation does help drive profits and wealth, it also generates unemployment. Should not be there some sort of limit that will prevent all jobs from being replaced by robots?
- Robots may replace 800 million workers by 2030. However, will automated systems create more jobs than it will destroy?



# **Vocabulary matching**

Using the words on the left match them to their real definitions.



Vocab Meaning	Meaning
1. Recession	a. not easily convinced; having doubts or reservations.
2. Forecast	b. a period of temporary economic decline during which trade and industrial activity are reduced, generally identified by a fall in GDP in two successive quarters.
3. Robot	c. a person who studies the future and makes predictions about it based on current trends.
4. Futurist	d. a machine capable of carrying out a complex series of actions automatically, especially one programmable by a computer.
5. Sceptical	e. a person employed in a port to load and unload ships.
6. Automation	f. predict or estimate (a future event or trend)
7. Anxiety	g. a fixed regular payment, typically paid on a daily or weekly basis, made by an employer to an employee, especially to a manual or unskilled worker.
8. Longshoremen	h. a feeling of worry, nervousness, or unease, typically about an imminent event or
9. Wage	something with an uncertain outcome.
10. Research	i. the use of largely automatic equipment in a system of manufacturing or another production process.
	j. the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.



# Video: The big debate about the future of work



Recent advancements in artificial intelligence and robotics have commentators worrying about the coming obsolescence of the human worker. Some in Silicon Valley are even calling for a basic minimum income provided by the government for everyone, under the assumption that work will become scarce. But many economists are skeptical of these claims, because the notion that the the economy offers a fixed amount of work has been debunked time and time again over the centuries and current economic data show no signs of a productivity boom. Fortunately, we don't need to divine the future of the labor market in order to prepare for it.

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#### Watch the video and then answer the questions below

- 1. Who is Heidi Shierholz?
- 2. Is Heidi worried about the massive unemployment caused by robots?
- 3. What happened in the late 20s and the early 30s?
- 4. When did automation anxiety surge again?
- 5. What was the 1958 New York Times' article about?
- 6. Why aren't longshoremen known nowadays?
- 7. How many jobs has technology displaced from 1950 to 2010 in the US?
- 8. What are the benefits of new technology in the work field?
- 9. Has this process improved the living standards?
- 10. What did Oxford University researchers determine in 2013?



# Advantages of robots in the workplace

- Because robots do not get tired like humans do, the collaboration between humans and robots is reducing absenteeism.
- As robots are meaningfully stronger and faster than humans, they can also be used in any environmental condition where human safety is a vast concern.
- Robots alleviate humans from certain repetitive, hazardous, and unpleasant tasks.
- Automated systems make more efficient use of materials, resulting in less scrap.
- Mechanisation and automation have reduced the number of hours worked on average per week by factory workers.

# Disadvantages of robots in the workplace

- Robots are intensifying the unemployment rate. Because of automated systems, human labour is no longer required in many factories and manufacturing plants.
- Robots can handle prearranged tasks, but they normally cannot handle unexpected situations.
- Robots cannot think for themselves so they can never improve their jobs outside the pre-defined programming.
- Robots lack empathy and create emotionless workplaces.
- An automated system can be extremely costly to design, fabricate, and install.





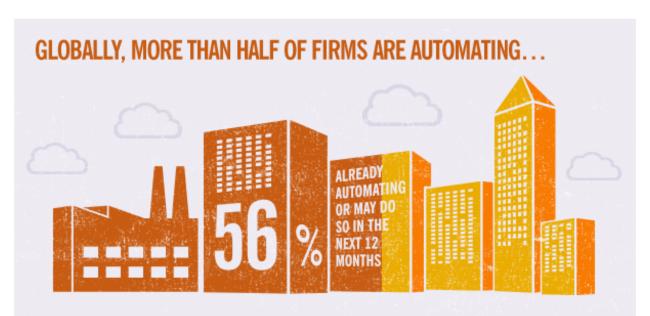
- Automation is worsening economic disparity by replacing human workforce worldwide.
- Automation enhances economic growth worldwide by creating more job opportunities for more people in more places.
- By replacing hundreds of jobs, robots decrease the standard of living of entire families.
- Automation increased productivity leads to cheaper goods, greater spending, more
  jobs and, ultimately, an increase of quality of life of lots of families across the globe.

## **Infographic**





# Business process automation: a global snapshot



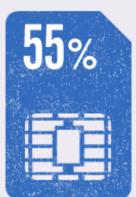
Automation in the first industrial revolution made us stronger, made us faster in the second, and in the third it offers greater insights through intelligent machines, analytics and the ubiquitous 'internet of things'. The possibilities are enormous.

# **Infographic**



## ...PRINCIPALLY TO BOOST EFFICIENCY & LOWER COSTS...

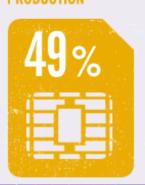
MORE ACCURATE/ EFFICIENT PRODUCTION



LOWER LONG-TERM COSTS

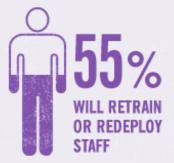


MORE FLEXIBILITY TO INCREASE/DECREASE PRODUCTION

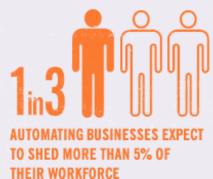


In this digital age, businesses are turning to technology at an ever increasing pace for greater efficiency and higher productivity. Capital costs are low while labour costs are on the rise, increasing the attractiveness of automation.

## ...BUT THIS TREND IS LIKELY TO RESULT IN SOME JOB LOSSES







## SECTORS MOST LIKELY TO SEE JOB LOSSES:









CLEANTECH

**FOOD & BEVERAGE** 



## PREMIUM 30-PAGE DEBATING LESSONS ON DOZENS OF TOPICS

These lessons are extensive and includes a magazine-like introduction, a 2-page article, vocabulary section, grammar exercises, and images for discussion. To help students organize their debate, worksheets are included for appropriate language and pros and cons to get them started. In total these lesson plans offer 30 pages of activities and tasks for students.

# **Environmental Crimes**

Debate Lesson Plan



Should natural features be given legal rights to protect them from pollution? This debate will target issues relating to how to legally protect the environment and criminalise pollution.

## Food Tax

Debate Lesson Plan



What are the best ways to tackle obesity? Some people advocate better food education, while others want to tax people to change their spending habits. Which is the most effective?

## Social Media

Debate Lesson Plan



People are becoming increasingly concerned about social media. Discuss the main issues and find out what your students think and why.