

Rise of robotics

Innovation in artificial intelligence and robotics could force governments to legislate for quotas of human workers and change traditional working practices. The report by the International Bar Association suggests that a third of graduate level jobs around the world may eventually be replaced by machines or software.

The competitive advantage of poorer, emerging economies – based on cheaper workforces – will soon be eroded as robot production lines and intelligent computer systems lower the cost of human endeavour. While a German car worker costs more than €40 (£34) an hour, a robot costs between only €5 and €8 per hour. A production robot is thus cheaper than a worker in China. Nor does a robot become ill, have children or go on strike and it is not entitled to annual leave.

The report covers both changes already transforming work and the future consequences of what it terms ‘industrial revolution 4.0’. The three preceding revolutions are listed as: industrialisation, electrification and digitalisation. ‘Industry 4.0’ involves the integration of the physical and software in production and the service sector. Amazon, Facebook, ‘smart factories’ and 3D printing are among current pioneers.

Jobs at all levels in society presently undertaken by humans are at risk of being reassigned to robots or Artificial Intelligence. Among the professions which are most likely to disappear are accountants, court clerks and desk officers at fiscal authorities. Peering into the future, the authors suggest that governments will have to decide what jobs should be performed only by humans – for example, caring for babies. The state could introduce a kind of ‘human quota’ in any sector, and decide whether it intends to introduce a ‘made by humans’ label or tax the use of machines. The new economy is likely to result in a greater gap between the rich and poor because many people will end up unemployed, whereas highly qualified, creative and ambitious professionals will increase their wealth.

The pioneering nation in respect of robot density in the industrial sector is South Korea, which has 437 robots for every 10,000 employees in the processing industry, while Japan has 323 and Germany 282.

Robots may soon invade our home and leisure environments. In the ‘Henn-na Hotel’ in Sasebo, Japan, ‘actroids’ – robots with a human likeness – are used. In addition to receiving and serving the guests, they are responsible for cleaning the rooms, carrying the luggage and, since 2016, preparing the food. The robots are able to respond to the needs of the guests in three languages. The hotel’s plan is to replace up to 90% of the employees by using robots in hotel operations with a few human employees monitoring CCTV cameras to see whether they need to intervene if problems arise.

Adapted from :

www.theguardian.com/technology/2017/apr/04/innovation-in-ai-could-see-governments-introduce-human-quotas-study-says (access date 27.04.17)

Task 1 (easier) : Read the text and decide if the following statements are true or false

1. It is cheaper to use robots than employ human workers in industry. T / F
2. There have already been five technological revolutions. T / F
3. There will be robot baby-sitters in the future. T / F
4. The living standard of various social classes won't change. T / F
5. The greatest number of robots used in industry is in Japan. T / F
6. In one Japanese hotel robots can carry your bag. T / F
7. There will be more robots than human employees in the hotel in the future. T / F

Task 2 (more challenging) : Read the text and answer the questions below:

1. List three advantages of using robots rather than human workers in industry.
2. What is industrial revolution 4.0 about?
3. What jobs will probably disappear due to the development of robotics? What other jobs do you think might be eliminated in the future?
4. What job, according to the text, will be done only by people? Can you explain why?
5. How can 'robotisation' of workplaces influence the living standards of various social classes?
6. Which country uses the greatest number of robots in industrial production?
7. What are the 'responsibilities' of actroids in the Henn-na Hotel in Japan? What is the hotel management going to do in the future? Do you think it is a good idea?
8. Give some examples of using robots in the future in the following areas: sport, education, gardening.

Key

Task 1 : 1. T 2. F 3. F 4. F 5. F 6. T 7. T

- Task 2:
1. It's cheaper; robots don't go on strike ; they don't take leaves; they don't get ill
 2. It involves the integration of the physical and software in production and services
 3. accountants, court clerks and desk officers at fiscal authorities/ students' individual answers
 4. looking after children/ baby-sitting / students' individual answers
 5. The new economy is likely to result in a greater gap between the rich and poor because many people will end up unemployed, whereas highly qualified, creative and ambitious professionals will increase their wealth.

6. South Korea

7. serving the guests, cleaning the rooms, carrying the luggage and, since 2016, preparing the food. The hotel's plan is to replace up to 90% of the employees by using robots in hotel operations with a few human employees monitoring CCTV cameras to see whether they need to intervene if problems arise.

8. students' individual answers