



Topic 10
Pg.80-90

RECENT DEVELOPMENTS AND THE FUTURE OF ICT

Reading comprehension

Futures

p.85 -86

p.85, 3x. A:

Skim the text and answer the questions:

1. Anything is possible if you put your mind to it. (lines 5-7)
2. Passport details, bank account, medical records and driving license (lines 12-13)
3. Shopping (line 13)
4. Software programs, networks etc. that have built-in intelligence and adaptable behavior (3rd paragraph)
5. They are increasing its speed (lines 37-38)
6. Overload of information (lines 56-58)
7. TV becoming more interactive by enabling people to influence what is happening on their TV sets (lines 64-67)
8. Alternatives for hospital time, e.g. packs for heart attack patients (lines 73-79)
9. Invention of a supercomputer that is more powerful than a human brain (lines 81-83)

Exercises

p.86, part B, ex.1

A. VI

B. V

C. I

D. VII

E. III

F. IV

G. II

⊙ p.86, part B, ex.2

1. T

2. F

3. F

4. T

5. T

6. F

p.85-86 - New vocabulary

- | | | | | |
|-----|---|----------|----|--|
| 1. | put your mind to sth (l.6) | L | a) | to spread |
| 2. | to be poised to do sth (l.8) | J | b) | workable, possible |
| 3. | a host of sth (l.8) | H | c) | sacred, divine |
| 4. | to breed (l.27) | I | d) | central part of a nut |
| 5. | kernel (l.45) | D | e) | flood, overload |
| 6. | to fan sth out (l.52) A | | f) | to be involved in sth |
| 7. | deluge (l.56) E | | g) | to mistreat |
| 8. | to have your fingers in sth (l.70) F | | h) | a large number of |
| 9. | viable (l.73) B | | i) | to produce |
| 10. | to bung up (l.74) G | | j) | to be ready and prepared to do something in the immediate future |
| 11. | to eclipse (l.82) K | | k) | to outshine / to outdo |
| 12. | to nurture (l.87) M | | l) | to direct your attention to sth |
| 13. | sacrosanct (l.92) C | | m) | to care for |

Listening comprehension

The jobs we'll lose to machines – and the ones we won't

Anthony Goldbloom / TED talk

<https://www.youtube.com/watch?v=gWmRkYsLzB4>

Discuss.

DISCUSSION:

5. In small groups, discuss the following points:

- Do you think that technology steals people's jobs?
- In what type of job might a human be happy to have a robot take over some tasks?
- Who might be affected positively and negatively by the addition of robots in the workforce?
- If robots take on some tasks currently performed by humans, how might the humans' jobs change?
- How can we change the education to prepare new generations for automation?

Brainstorm.

WARM-UP:

1. What kind of professions will disappear in the next 10-15 years and which ones will become more common?. Fill in the table below:

DYING PROFESSIONS	TOP FUTURE JOBS



- Do you think that on balance more jobs will be created or lost because of technology?

Suggested answers:

DYING PROFESSIONS	TOP FUTURE JOBS
bank tellers, bookkeepers, typists, cashiers, payroll clerks, secretaries, door-to-door salespeople, factory worker etc.	software engineers, database administrators, healthcare jobs (nurses, personal care aides), service technicians, information security analyst



<https://www.youtube.com/watch?v=gWmRkYsLzB4>

a) What were the findings of the study carried out at Oxford University?

Almost one in every two jobs have a high risk of being automated by machines.

b) What does machine learning enable?

Learning from data and mimicking some of the things that humans can do.

c) What could machine learning do in the 1990s and what can it do now?

Assess credit risk of loans, sort the mail by reading handwritten characters from zip codes (the 1990s). Grade high-school essays; perform eye check-ups (now).

d) What are the things that humans can do and machines can't?

Tackle novel situations.

TED VOCABULARY – Fill in the blanks

Outperform tackle mimic stand out cutting edge breakthroughs remarkable

- a) Artificial intelligence allows machines to learn from data and MIMIC some of the things that humans can do.
- b) People have made dramatic BREAKTHROUGHS in terms of machine learning over the past few years.
- c) Machines are going to OUTPERFORM humans at tasks like grading essays or doing eye check-ups.
- d) The invention of microwave oven is a particularly REMARKABLE example of creativity.
- e) A marketing copy has to STAND OUT from the crowd.
- f) Humans are better at tasks that involve TACKLING novel situations.
- g) We must make sure that we remain on the CUTTING EDGE of innovation and change otherwise our rivals will win.

Exercises

Robots, androids, AI

Pg.89 -90

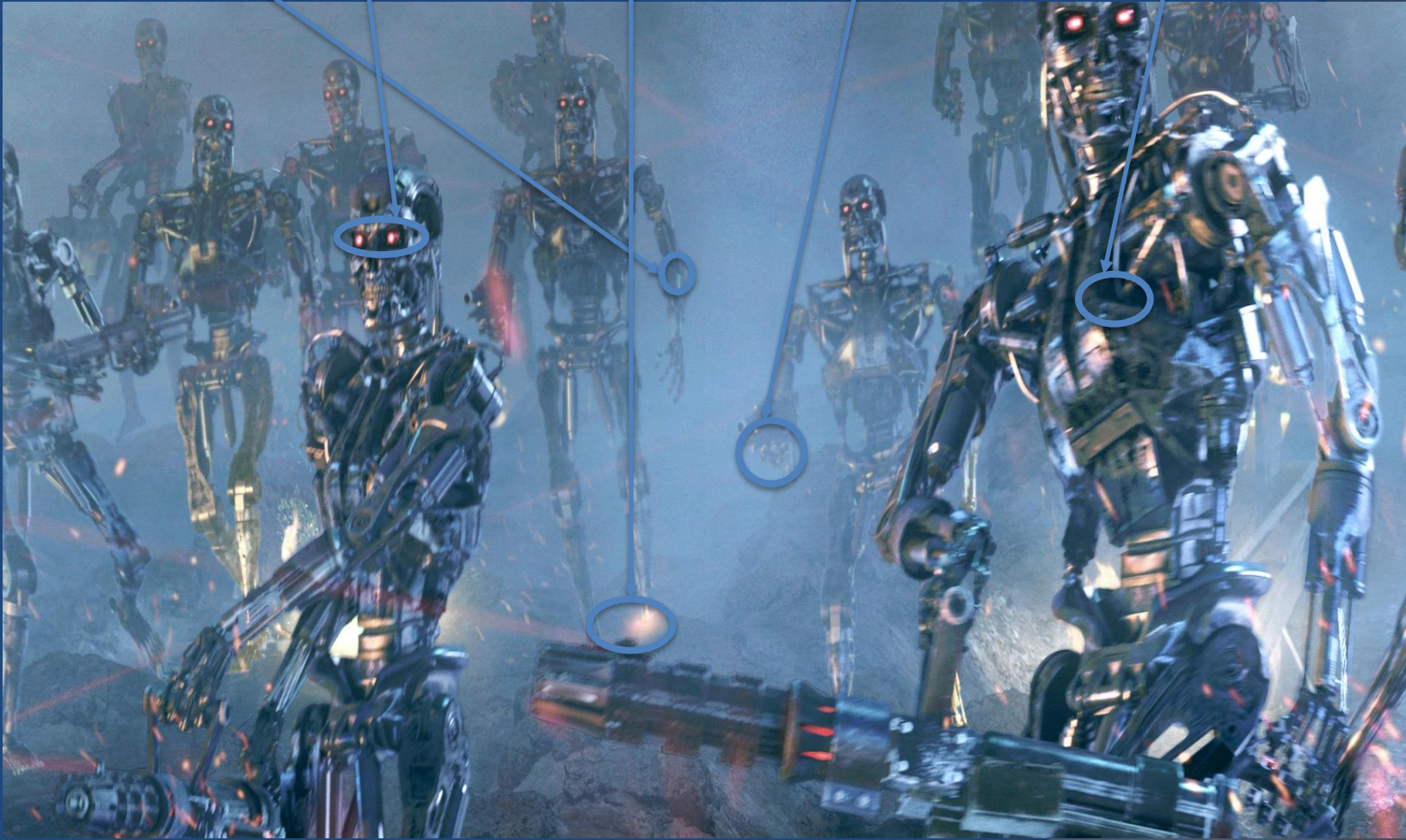
joints

sensors

bumpers

end-effectors

actuators



Automata

Complete with words from A and C (p.89)

● P.90, ex. 30.1

1. sensors
2. end effector
3. joints actuator
4. robot
5. automata
6. computer system

● P.90, ex. 30.3

1. Artificial intelligence
2. Androids
3. Neural networks
4. Expert systems

Additional exercises

Word formation exercise:

1. Many times researchers study some areas to satisfy their CURIOSITY but as a result new things are invented. (CURIIOUS)
2. Recent DEVELOPMENT in machine learning has allowed us to create machines that can win with humans in some areas. (DEVELOP)
3. Engineers can now apply ADVANCED technological solutions to automatize many tasks that required human input. (ADVANCE)
4. Machines are not always RELIABLE and sometimes break down so we should limit how much we depend on them in everyday life. (RELY)

5. There are NUMEROUS reasons why we should create artificial intelligence. (NUMBER)
6. Some people believe that AI is such a DISRUPTIVE technology that it will change our lives just as the Internet or TV did. (DISRUPT)
7. The INVENTION of gunpowder was one of the most significant achievements of the Middle Ages in China. (INVENT)
8. Their DISCOVERY was quickly confirmed, making it the first confirmation of planets outside our Solar System. (DISCOVER)

DEBATE

Wrap-up

DEBATE:

6. You will be divided into two groups. One group will be in favour and the other against the following statement:

Robots are taking over humans' jobs.

In groups, prepare three/four arguments to support your opinion and think how to refute any potential counterarguments of your opponents.