READING PRACTICE 6-FULL TEST

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27–40**, which are based on Reading Passage 3 below.*

ARTIFICIAL INTELLIGENCE

1. In many countries in the West, hysteria about the future of artificial intelligence (AI) is everywhere. There seems to be no shortage of sensationalist news about how AI could cure diseases, accelerate human innovation and improve human creativity. Just looking at the media headlines, you might think that we are already living in a future where AI has infiltrated every aspect of society.

2. While it is undeniable that AI has opened up a wealth of promising opportunities, it has also led to the emergence of a mindset that can be best described as 'AI solutionism'. This is the philosophy that, given enough data, machine learning algorithms can solve all of humanity's problems. But, in fact, instead of supporting AI progress, this mindset actually jeopardises the value of machine intelligence by disregarding important AI safety principles and setting unrealistic expectations about what AI can really do for humanity.

3. In only a few years, AI solutionism has made its way from the technology evangelists' mouths in Silicon Valley in California to the minds of government officials and policymakers around the world. The pendulum has swung from the dystopian notion that AI will destroy humanity to the utopian belief that our algorithmic saviour is here.

4. We are now seeing governments pledge support to national AI initiatives and compete in a technological race to dominate the burgeoning machine-learning sector. While many politicians proclaim the transformative effects of the coming 'AI revolution', they fail to realise the complexity around deploying advanced machine learning systems in the real world.

5. One of the most promising varieties of AI technologies are neural networks. This form of machine learning is loosely modelled on the neuronal structure of the human brain, but on a much smaller scale. But what many politicians do not understand is that simply adding a neural network to a problem will not automatically mean that you'll find a solution. Similarly, adding a neural network to a system of government does not mean it will be instantaneously more inclusive or fair.

6. AI systems need a lot of data to function, but the public sector typically does not have the appropriate data infrastructure to support advanced machine learning. Most of the data remains stored in offline archives. The few digitised sources of data that exist tend to be buried in bureaucracy. More often than not, data is spread across different government departments that each

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require special permissions to be accessed. Above all, the public sector typically lacks the human talent with the right technological capabilities to fully reap the benefits of machine intelligence.

7. For these reasons, the sensationalism over AI has attracted many critics. Stuart Russell, a professor of computer science at the University of California, Berkeley, has long advocated a more sensible and realistic approach that focuses on simple everyday applications of AI instead of the hypothetical takeover by super-intelligent robots. Similarly, Rodney Brooks, professor of robotics at Massachusetts Institute of Technology, writes that 'almost all innovations in robotics and AI take far, far, longer to be really widely deployed than people in the field and outside the field imagine'.

8. One of the many difficulties in deploying machine learning systems is that AI is extremely susceptible to adversarial attacks. This means that a malicious AI can target another AI to make it behave in a certain way, such as forcing it to make wrong predictions. Many researchers have warned against the rolling out of AI without appropriate security standards and defence mechanisms. Still, AI security remains an often overlooked topic when machine learning systems are installed.

9. If we are to reap the benefits and minimise the potential harms of AI, we must start thinking about how machine learning can be meaningfully applied to specific areas of government, business and society. This means we need to have a discussion about AI ethics and the distrust that many people have towards machine learning.

10. Most importantly, we need to be aware of the limitations of AI and where people still need to take the lead. Instead of painting an unrealistic picture of the power of AI, it is important to take a step back and separate the actual technological capabilities of AI from fantasy.

11. The medical profession has also recognised the drawbacks to AI. The IBM Watson for Oncology programme was a piece of AI that was meant to help doctors treat cancer. Even though it was developed to deliver the best recommendations, human experts found it hard to trust the machine. As a result, the AI programme was abandoned in most hospitals where it was trialled.

12. Similar difficulties arose in the legal domain when algorithms were used in courts in the US to sentence criminals. An algorithm calculated risk assessment scores and advised judges on the sentencing. The system was found to amplify structural racial discrimination and was later abandoned.

13. There are some crucial lessons here for everyone aiming to boost investments in national AI programmes. These examples demonstrate that there is no AI solution for everything. Using AI simply for the sake of AI may not always be productive or useful, and not every issue is best addressed by applying machine intelligence to it. All solutions come with a cost and not everything that can be automated should be.

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Questions 27-29

Choose the correct letter, ***A, B,*** **C** ***or*** **D.**

Write the correct letter in *boxes 27-29* on *your answer sheet.*

27 What is the writer doing in the first paragraph?

A predicting the future impact of AI **B** describing a public perception of AI

C outlining some possible benefits of AI **D** highlighting the breadth of the influence of AI

28 When discussing AI solutionism in the second paragraph, the writer

A points out a risk involved. **B** specifies its probable origins.

C mentions its chief supporters. **D** weighs up some pros and cons.

29 In the fourth paragraph, the writer suggests that many politicians may

A have failed to appreciate the true potential of AI initiatives.

B have misunderstood the function of the machine-learning sector.

C be unaware of the challenges of implementing national AI initiatives.

D be too keen to enter the race to dominate the machine-learning sector.

Questions 30-35*. Complete the summary using the list* of *words,* ***A-I,*** *below.*

Write the correct letter, ***A-I,*** *in boxes 30-35* on *your answer sheet.*

AL IN GOVERNMENT, MEDICINE AND THE LAW

Neural networks are a promising area of AI technology for governments. However, many politicians overestimate their capabilities, believing that the mere addition of a neural network will produce solutions and promote **30**..... .

Most public sector organisations have not set up the necessary **31**..... to manage the huge amount of data required to enable AI to function. Complex bureaucracy is another issue, as each person involved needs **32**..... to access the relevant data, which is often spread across different departments. But the main problem is that few public sector employees have the **33**..... to take full advantage of machine intelligence.

The medical profession experimented with an AI programme, but their experts had little faith in its **34**..... , and the programme was abandoned. US courts also abandoned the use of algorithms when it was found that these reflected and magnified the existing **35**..... within the legal profession.

A reliability **B** funding **C** skills **D** prejudices **E** computers **F** equality
G framework **H** confidentiality **I** approval

Questions **36-39**

Do the following statements agree with the claims of the writer in Reading Passage 3?

In boxes *36-39* on your answer sheet, *write*

YES *if the statement agrees with the claims of the writer*

NO *if the statement contradicts the claims of the writer*

NOT GIVEN *if it is impossible to say what the writer thinks about this*

36 Stuart Russell's proposals regarding the use of AI are impractical.

37 Rodney Brooks' view has attracted unfair criticism from supporters of AI.

38 Nowadays, the need to protect AI systems is always taken into account when they are set up.

39 In order to benefit from AI and minimise the harms, we have to explore people's concerns about its use.

Question **40**. Choose *the* correct *letter,* ***A, B,*** **C or** ***D.***

Write the correct *letter in box 40* on your answer sheet.

40 What would be a suitable subtitle for Reading Passage 3?

A How to make the most of what AI has to offer

B Why AI may not be the answer to our problems

C Why governments should not invest in AI systems

D How AI could improve the efficiency of the public sector

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