T.I.M.
English

S2 Final exam

May 2023

- Durée 1h30
- **Aucun document et pas de dictionnaire.**

- **Ne rendre que la feuille QCM**
  - **Bien indiquer son UID**
  - **Ecrire son nom et prénom en majuscule**

- **Cette épreuve comprend 3 parties**
- **Une seule réponse possible par question**
- **Aucun point négatif, répondez à toutes les questions**

Part 1: The following questions relate to the Ted talk:
"How gaming can be a force for good" Questions 1 to 30

1. Select the speaker's name:
   a. Daniel Radcliff
   b. Basil Radford
   c. Phil Radford
   d. Noah Raford

2. What fraction of teenage American gamers spend more income on virtual fashion and videogames than on clothes?
   a. 1/4
   b. 1/3
   c. 1/2
   d. 2/3

3. What is the name of the charismatic young preacher, mentioned?
   a. Recep Tayyip Erdoğan
   b. Salman bin Abdulaziz Al Saud
   c. Hassan ibn Sabbah
   d. Muhammad Ali

4. Which of these does the speaker predict?
   a. A rise in social unrest
   b. A decrease in religious practice
   c. An increase in the variety of careers
   d. A fall in household budget for clothing

5. What were the leader's fanatically devoted group of men called?
   a. The Order of Assassins
   b. The Order of the Good Death
   c. The Order of the Phoenix
   d. The Order of the Secret Society

6. Where was the speaker working when he heard the story about the charismatic leader?
   a. The Gulf
   b. The Netherlands
   c. The USSR
   d. The UAE (United Arab Emirates)

7. How many American people are said to believe that the government is run by a secret cabal of demon-worshiping perverts?
   a. 1 million
   b. 5 million
   c. 10 million
   d. 50 million

8. Which idiom or well-known expression is used in the talk?
   a. 'a leap of faith'
   b. 'fly by the seat of your pants'
   c. 'jump for joy'
   d. 'the best of both worlds'

9. Regarding videogames and violent behaviour, the speaker states:
   a. Nothing, because violent behaviour is not mentioned.
   b. ... that video games are not linked to violent behaviour.
   c. ... that videogames are tentatively linked to violent behaviour.
   d. ... that video games are definitely linked to violent behaviour.

Turn to the next page

3

10. The speaker makes reference to 11th century:
    a. AI (artificial intelligence)
    b. data collection
    c. forged and cast wheels and axels
    d. virtual reality

11. What was the secret place built behind the mountain fortress designed to look like?
    a. The Great Pyramid of Giza
    b. The mystical Queen's secret garden
    c. Heaven or paradise
    d. The ḥashshāshīn

12. The speaker argues that video games:
    a. work different muscles that people don't normally use.
    b. rot the brain.
    c. are going to become a platform for social conflict.
    d. stimulate different neurones that are not commonly triggered.

13. The term videogame cult:
    a. is NOT used by the speaker.
    b. is used in relation to impactful social movements.
    c. is used concerning future recruitment and dismissal or hiring and firing in the video game industry.
    d. is used to describe the video game 'Resident Evil 4'.

14. Choose the true statement concerning the popularity of video games as mentioned in the talk:
    a. Video games are 30 times larger than the entire global film and music industries combined.
    b. Video games will never be world's dominant form of entertainment.
    c. The top streamers on Twitch receive - on average - twice as many views as the biggest Hollywood movies, monthly.
    d. Collectively, gamers spend twice as much time watching and playing video games as they do using all other forms of social media combined.

15. What precisely are people said to spend 130 billion dollars on?
    a. The metaverse
    b. In-game economies
    c. Clothing, particularly designer wear
    d. NFTs (non-fungible tokens)

16. Which of these advantages to video game playing is NOT listed?
    a. Video games meet players' primal social and psychological needs.
    b. Video games make players feel effective and can give a sense of goal achievement.
    c. Video games allow for a feeling of belonging – to a group – and working for something bigger than themselves.
    d. Video games markedly improve hand-eye coordination, at all levels of play.

17. Wincy spoke enthusiastically of which video game(s)?
    a. Disney's TOONTOWN & Pirates of the Caribbean
    b. Maple Story & Rune Scape
    c. Pokémon
    d. World of Warcraft

18. The speaker is suggesting that positivity or good comes from video games because of all EXCEPT which one of these?
    a. Gamers develop a deep sense of commitment to a shared narrative world.
    b. Gaming can provide what 'real-world' jobs frequently do not.
    c. Video games can provide what relationships often do not.
    d. Gamers are better adapted to a wide variety of accents as the players are multinational.

Turn to the next page

19. Regarding the speaker's children, which is NOT true?
    a. His son is called Teo.
    b. His son is called Hugo.
    c. His children want only Skyblock coins and digital emotes for their gaming characters.
    d. His son is hoping to get rich dealing in NFTs (Non fungible tokens).

20. What global concern is NOT mentioned as terrifying people?
    a. Climate change
    b. Over population
    c. Pandemics
    d. War

21. Which of these statements is NOT made regarding current general mental health?
    a. The future feels terrifying for many people, which is impacting on mental health.
    b. One third of all US undergraduates surveyed reported having moderate to severe anxiety.
    c. More than 1 in 5 US adults live with a mental illness.
    d. Students' rates of severe depression have doubled over the last decade or so.

22. Fill in the blank:
'Two thirds of those surveyed in a study of _____ different countries reported that they thought their children were going to grow up poorer and not have successful careers.'
    a. 10
    b. 17
    c. 21
    d. 25

23. Which historical event is not mentioned as having shaped history?
    a. The Protestant Reformation in the 16th century
    b. The rise of new religious movements in the 19th century
    c. The recent QAnon movement
    d. The Global Democratic Erosion

24. Which of these tools does the speaker NOT suggest that cults could use?
    a. the church
    b. membership and living in a community
    c. the social media network.
    d. the metaverse

25. Which of these elements is NOT given in the speaker's description of 'gamecults'?
    a. Large-scale social movements with real-world consequence
    b. Widespread extreme or bizarre beliefs
    c. People being influenced by virtual worlds
    d. Moderately successful video games that have a marginal devout audience

26. Which is the named organisation that started on Facebook and developed into a group of militants with an anti-Covid-vaccination campaign, possibly costing the lives of a million excess deaths from the virus?
    a. QAnon
    b. Follow US! - Conspiracy Theory
    c. The Bohemian club
    d. The Order of the Occult Hand

27. The TED Talk draws attention to all ECXCEPT which one of these aspects of video game playing?
    a. How popular video games have been, are and will be.
    b. How clan-like certain gaming communities can be.
    c. The bewitching nature of some video games.
    d. The speedy keyboard and hand-set skills required for gaming.

28. Which example of a positive video game world, is NOT given by the speaker?
    a. Druidica, to repair the ecosystem.
    b. LinkedINDEED, to link salaries to charities.
    c. Temple, a pray-to-earn video game.
    d. Walkabout, to share skills and encourage mutual aid .

29. Toward the end of the TED Talk, which of these does the speaker incite the audience to reflect upon?
    a. Economy and national treasuries
    b. The errors of social media
    c. The balance of governmental and international political power
    d. The potential positive influence of video games

30. Overall, which of these is the speaker NOT suggesting?
    a. People need a sense of meaning and purpose during times of great uncertainty.
    b. Virtual reality or reality distortion has been used to sow unfaltering loyalty.
    c. Video games may hold the power to craft harmonious culture.
    d. From the birth of gaming, video games have held the key to world peace.

Turn to the next page

Part 2: Reading comprehension 1.

Questions 31to 60 refer to the following article.

Inside the Bitcoin Laundering Case That Confounded the Internet

Feb. 13, 2022, By Ali Watkins and Benjamin Weiser

1. When anonymous hackers infiltrated the cryptocurrency exchange Bitfinex in 2016, it shook the nascent world of digital currency and prompted speculation about who might have stolen what was then $71 million in Bitcoin.

2. But unlike traditional financial transactions, Bitcoin trades are publicly visible — moving the coins risked revealing who was behind the heist. And so for six years, as the value of Bitcoin soared, the loot sat in plain sight online as tiny fractions of the giant sum occasionally disappeared in a blizzard of complex transactions.

3. It was as if a robber's getaway car was permanently parked outside the bank, locked tight, money still inside.

4. And then, this month, the car sped off.

5. In the strange and sometimes shadowy world of cryptocurrency, it was as if the earth shook. In the years since the Bitfinex hacking, crypto had exploded into the mainstream, and the theft had become notorious: a bounty worth over $4 billion. At last, it seemed, the hackers had emerged from hiding.

6. But it was not the hackers who had moved the stolen Bitcoin — it was the government, which had seized it as part of an investigation into two New York City entrepreneurs: one a little-known Russian émigré and tech investor; the other, his wife, an American businesswoman and would-be social media influencer with an alter ego as a satirical rapper named Razzlekhan.

7. Charged with conspiring to launder billions of dollars in Bitcoin, the couple, Ilya Lichtenstein, 34, and Heather Morgan, 31, were accused of siphoning off chunks of the purloined currency and trying to hide it in a complex network of digital wallets and internet personas. If convicted of that and a second conspiracy count, they could face up to 25 years in prison.

8. The arrests shocked some acquaintances of the couple, whose goofy online lives appeared at odds with prosecutors' description of them as sophisticated criminals with stacks of foreign currency, multiple fake identities and dozens of encrypted devices stashed in their Manhattan apartment. As they awaited a Monday court hearing in Washington on whether they should be freed on bail, Mr. Lichtenstein and Ms. Morgan remained the subject of a confounding question: Could they really be at the center of one of cryptocurrency's enduring mysteries?

9. The charges were a watershed in the evolving regulation of digital currency and, to some, a step forward in the government's ability to trace its illegal laundering.

10. "The crypto space has always been seen as like a safe haven for criminals," said Christopher Tarbell, a former F.B.I. special agent who helped lead the investigation into the Silk Road online marketplace for illegal drugs and other illicit goods.

11. "We're now seeing that law enforcement has the knowledge, tools and skills to provide some accountability in what was the new wild, wild west of cybercrime," Mr. Tarbell said.

12. Officials have not said whether they believe Mr. Lichtenstein and Ms. Morgan were directly involved in the Bitfinex breach. But their arrests laid bare the murky fringes of crypto culture, where the line between sophisticated virtual finance ventures and infantile online gags is razor thin and constantly shifting.

13. Sandra Ro, who leads the Global Blockchain Business Council, an industry association that advocates for the adoption of cryptocurrency markets, said the arrests "play into the narrative that the crypto community is populated by dubious and fringe characters, which is not the case."

14. "There are adults in the room," Ms. Ro said, "who are building real products and services to grow a multitrillion-dollar industry responsibly."

15. For many who follow the industry, Mr. Lichtenstein and Ms. Morgan came off as familiar characters in a realm where fortune favored the boldest investors, the flashiest personalities got rich fast and a single, obtuse tweet could rattle entire markets.

16. Almost immediately after the arrests, the hyperactive community that discusses cryptocurrency on social media and message boards began to pore over Ms. Morgan's bizarre digital trail. Her videos — little-watched before she was charged — were suddenly being shared widely.

17. In one, apparently recorded at brunch, Ms. Morgan marvels at the size of her plate of pancakes, sneers, sticks out her tongue and wags her fingers before announcing that she is offering a commentary about consumerism and social media's superficial nature.

18. The Bitfinex hacking was the stuff of legend, but Mr. Lichtenstein and Ms. Morgan hardly appeared to be suave, or subtle, digital cat burglars — or the tip of a grand conspiracy.

19. Sharing the pancake video, one typically irreverent Twitter account that comments on cutting-edge financial markets in an all-caps parody of the Incredible Hulk captured a widely expressed reaction to the revelation: "OK. THE HACKERS ARE NOT CIA. THEY ARE IDIOTS."

20. Ms. Morgan was a regular contributor to Forbes and Inc., writing columns that advised her fellow entrepreneurs on how to protect their digital currency, and recommending rapping as a form of self-care, as she did through her alter-ego, Razzlekhan (Genghis Khan, but with more pizazz, her website says).

21. Those who know Ms. Morgan said her social media stunts were part of an elaborate act to confront social pressures.

22. "She works to free herself from a lot of the scripts that are embedded in our society," said Morgan Brittni Sonnenfeld, who said she is Ms. Morgan's cousin. "I admire her for that, she has a lot of strength." Ms. Sonnenfeld acknowledged that news coverage of Ms. Morgan had made her "sound a bit crazy," and she wondered whether Ms. Morgan's persona may have drawn the authorities to her.

23. "I wonder, why do they want people looking at her? Who are we not looking at? Why are they choosing this specific person?" Ms. Sonnenfeld said.

24. The arrests also surprised Ms. Morgan's friends, who described her as a disarmingly honest colleague in an industry defined by cutthroat competition.

25. "It is very jarring to think someone so open and vulnerable with people would have secrets," one friend, Nora Poggi, said. "She is someone I care a lot about."

26. In court records, the Justice Department describes the trail that it says led investigators to Mr. Lichtenstein and Ms. Morgan.

27. In January 2017, five months after hackers hit Bitfinex, a portion of what they stole was moved in small complex transactions into accounts that the couple controlled, according to a criminal complaint filed in federal court in Washington.

28. "This shuffling, which created a voluminous number of transactions, appeared to be designed to conceal the path of the stolen" Bitcoin, the complaint says.

29. Mr. Lichtenstein and Ms. Morgan were budding tech entrepreneurs at the time. Mr. Lichtenstein specialized in cryptocurrency and coding, according to his LinkedIn profile, and Ms. Morgan had returned from the Middle East, where she focused on currency markets.

30. Anirudh Bansal, the couple's lawyer, declined a request for comment. But in court papers, he has made it clear that he believes the government's case is weak and relies on "unsupported, conclusory leaps."

31. Beyond Ms. Morgan's highly public persona, little is known about the couple. They have been together for seven years and married for three, Mr. Bansal told a federal magistrate judge in Manhattan on Tuesday during arguments over whether the couple should be released on bail.

32. In saying that his clients were not a risk to flee, Mr. Bansal offered some personal details about them.

33. Mr. Lichtenstein, Mr. Bansal said, came to the United States from Russia when he was 6. His father works for the housing authority of Cook County, Ill., and his mother is a biochemist at Northwestern University.

34. Ms. Morgan, who was born in Oregon, runs a consulting firm that employs up to 30 freelance writers at a time, Mr. Bansal said. Her father served in the U.S. military and is a retired biologist. Her mother is a high school librarian.

35. Mr. Lichtenstein's family had immigrated to the United States to flee religious persecution and there was "no chance" he would return to Russia, Mr. Bansal said.

36. In a later letter, another of the couple's lawyers wrote that Ms. Morgan had frozen several of her embryos at a hospital in New York in anticipation of starting a family.

37. "The couple would never flee from the country at the risk of losing access to their ability to have children," the lawyer wrote.

38. At the hearing, a prosecutor, Margaret Lynaugh, said in opposing bail, for Mr. Lichtenstein, a dual citizen of the U.S. and Russia, that he had an active Russian passport and the means and intent to flee.

39. The judge ordered that the couple be freed on multi-million-dollar bonds, but at the government's request, a federal judge in Washington blocked their release and scheduled the hearing on Monday.

40. In court papers, the government has called Mr. Lichtenstein and Ms. Morgan "highly sophisticated criminals." Prosecutors said they believed the couple had significant additional assets, including hundreds of millions of dollars in virtual currency stolen from the Bitfinex exchange that had not been recovered, as well as access to numerous fraudulent identities bought on the so-called darknet, a hidden portion of the internet used for illicit transactions.

41. The government says the couple had also established financial accounts in Russia and Ukraine, and appeared to have been setting up a contingency plan for a life in one of those countries before the pandemic.

42. As evidence of what they depicted as a complicated money-laundering scheme, prosecutors say in a court filing that they had traced stolen cryptocurrency to more than a dozen accounts held in the true names of the couple or their businesses.

43. The government says in the court filing that when agents executed a search warrant at the couple's Lower Manhattan apartment on Jan. 5, they recovered more than 50 electronic devices, including a bag labeled "burner phone," and more than $40,000 in cash. Many of the devices were partially or fully encrypted or otherwise password protected, the court filing says.

44. In Mr. Lichtenstein's office, agents found two hollowed-out books whose pages appeared to have been cut out by hand to create secret compartments, the filing says. (The compartments were empty.)

45. And then there was the couple's cat.

46. As agents were about to begin the search, Ms. Morgan and Mr. Lichtenstein said they would leave their apartment, but wanted to take their cat, the filing says. The agents allowed Ms. Morgan to retrieve the cat, which was hiding under the bed.

47. But as Ms. Morgan crouched by the bed and called to the cat, she positioned herself next to a night stand that held one of her cellphones, the filing says. She then reached up and grabbed the phone, and repeatedly hit the lock button in what prosecutors say was an apparent effort to make it harder for investigators to search the phone's contents.

48. The agents had to wrest the phone from Ms. Morgan's hands. Court records provided no further information about the cat.

Question starts on the following page

31) Since 2016, the value of Bitcoin has _____?
   a) dramatically fallen
   b) increased
   c) plummeted
   d) slightly risen

32) What is the disadvantage of bitcoin trades?
   a) It takes a while before it is validated
   b) The court process is usually longer if accused
   c) It is easier to get caught red-handed if robbed
   d) All of the above

33) Which word in paragraphs 1-24 means "prize"?
   a) chunks
   b) wallet
   c) loot
   d) odd

34) What is NOT true about Heather Morgan?
   a) She lived in New York
   b) She is married to a tech investor
   c) She was accused of robbery
   d) She wanted to be a satirical artist

35) Why did the arrests astonish the people around them?
   a) They were just normal people
   b) They weren't seen as sophisticated people
   c) They were too rich and powerful
   d) They didn't like cryptocurrency

36) Which word in paragraphs 1 -24 means "an event that marks a turning point in a situation"?
   a) venture
   b) cutthroat
   c) sneers
   d) watershed

37) Who is Mr Tarbell?
   a) He played a small part in the Silk Road
   b) He investigated illicit goods
   c) He is an accomplice to Ms Morgan
   d) He works as an F.B.I special agent

38) What is so dangerous about crypto culture in para 12.?
   a) The line between childish and mature behaviour is ever-changing
   b) It could influence more hackers to commit felonies
   c) The outcome could possibly harm many people
   d) The result would be catastrophic for the world economy

39) What does Sandra Ro think of the arrests?
   a) She believes it will decrease the trust of cryptocurrency by a third
   b) They lack humanity for committing such a crime
   c) They don't portray the real personality of hackers
   d) None of the above

40) In para.15, what does the "the boldest investors" mean?
   a) The most terrific investors
   b) The most daring investors
   c) The most cautious investors
   d) The most fearful investors

41) What changed for Ms. Morgan the moment she was arrested?
   a) She gained more video views
   b) The trial would be televised
   c) She accused her husband
   d) She lost her apartment

42) What video did Ms. Morgan do at brunch?
   a) A pancake recipe video
   b) A life lesson video
   c) An unboxing video
   d) A rap video

43) According to Ms Sonnenfeld, why did Ms Morgan work?
   a) to hide her real personality and pretend to be dubious.
   b) to earn more cash and more job securities
   c) to liberate herself from the social pressures
   d) to be portrayed as a very successful rapper

44) Which verb in paragraphs 1-24 means "to be amazed"?
   a) stash
   b) embed
   c) marvel
   d) sneer

45) What is implied about Nora Poggi's reaction to the news about Ms. Morgan?
   a) She felt shocked to have misjudged her
   b) She did not believe the accusations
   c) She felt tricked and manipulated
   d) She wished she had never met her

46) What is the "trail" mentioned in para. 26?
   a) The clues and evidence that led to identifying the accused couple
   b) The criminal court process that took place in Washington
   c) The path that the couple had taken around the world
   d) The test that the couple took to prove their innocence

47) How did the couple allegedly manage to hide any traces of the money transfers?
   a) They converted money using currency markets
   b) They encrypted the transactions using blockchain
   c) They moved the money between accounts using a considerable amount of transfers
   d) They used false identities to create bank accounts

48) What is NOT true about the couple?
   a) Their parents were still alive
   b) Mr. Lichtenstein's family also lived in the US
   c) Ms. Morgan's father no longer works
   d) Ms. Morgan's mother works in a bookshop

Turn to the next page

49) In court, bail for Mr. Lichtenstein was opposed. For what reason?
   a) He wanted to escape religious persecution
   b) He had dual nationality
   c) He had no chance of returning to Russia
   d) He had lived in the US since he was a child

50) What reason could have reasonably been given by prosecutors for opposing Ms. Morgan's bail application?
   a) That the frozen embryos were not her own
   b) That having children was no longer a priority, but had become a pretext
   c) That freezing her embryos in the US would ensure that she could have children there
   d) That she had access to a Russian passport

51) What would the couple's "contingency plan" (para. 41) NOT involve?
   a) Moving abroad to escape justice
   b) Placing money in various accounts
   c) Having children in the US
   d) Creating false identities

52) What did the government NOT accuse the couple of?
   a) Possessing a Russian passport
   b) Being very resourceful
   c) Having the means to flee
   d) Religious persecution

53) What did agents NOT find at the couple's apartment?
   a) A book with secret compartments
   b) A family pet
   c) A large amount of money
   d) A suspicious bag

54) Why did the couple probably wish to collect their cat?
   a) Because no one was looking after it
   b) They wanted to take it with them
   c) It was a pretext to gain access to an item in the flat
   d) They missed it

55) What happened to the pet?
   a) It was hiding under the bed
   b) It was taken care of by the police
   c) No information is given about its fate
   d) The couple took it with them

56) Which word in paragraphs 25-48 means "to seize from the hands"?
   a) executed
   b) wrest
   c) retrieve
   d) crouched

57) Which word in paragraphs 25-48 means "a court session"?
   a) trail
   b) hearing
   c) records
   d) bail

58) Which verb in paragraphs 25-48 means "to bring back"?
   a) retrieve
   b) wrest
   c) crouch
   d) immigrate

59) Which word in paragraphs 25-48 means "money paid so that an accused person can be freed while awaiting trial"?
   a) hearing
   b) bond
   c) money-laundering
   d) filing

60) Which word in paragraphs 25-48 means "someone's public image"?
   a) entrepreneur
   b) persona
   c) sophisticated
   d) secret

Turn to the next page

Top 9 Ethical Issues in Artificial Intelligence

Optimizing logistics, detecting fraud, composing art, conducting research, providing translations: intelligent machine systems are transforming our lives for the better. As these systems become more capable, our world becomes more efficient and consequently richer.

Now is the right time to talk about the nearly boundless landscape of artificial intelligence. In many ways, this is just as much a new frontier for ethics and risk assessment as it is for emerging technology. So which issues and conversations keep AI experts up at night?

1. Unemployment. What happens after the end of jobs?

The hierarchy of labour is concerned primarily with automation. As we've invented ways to automate jobs, we could create room for people to assume more complex roles, moving from the physical work that dominated the pre-industrial globe to the cognitive labour that characterizes strategic and administrative work in our globalized society.

Look at trucking: it currently employs millions of individuals in the United States alone. What will happen to them if the self-driving trucks promised by Tesla's Elon Musk become widely available in the next decade? But on the other hand, if we consider the lower risk of accidents, self-driving trucks seem like an ethical choice. The same scenario could happen to office workers, as well as to the majority of the workforce in developed countries.

This is where we come to the question of how we are going to spend our time. Most people still rely on selling their time to have enough income to sustain themselves and their families. We can only hope that this opportunity will enable people to find meaning in non-labour activities, such as caring for their families, engaging with their communities and learning new ways to contribute to human society.

If we succeed with the transition, one day we might look back and think that it was barbaric that human beings were required to sell the majority of their waking time just to be able to live.

2. Inequality. How do we distribute the wealth created by machines?

Our economic system is based on compensation for contribution to the economy, often assessed using an hourly wage. The majority of companies are still dependent on hourly work when it comes to products and services. But by using artificial intelligence, a company can drastically cut down on relying on the human workforce, and this means that revenues will go to fewer people. Consequently, individuals who have ownership in AI-driven companies will make all the money.

We are already seeing a widening wealth gap, where start-up founders take home a large portion of the economic surplus they create. In 2014, roughly the same revenues were generated by the three biggest companies in Detroit and the three biggest companies in Silicon Valley ... only in Silicon Valley there were 10 times fewer employees. If we're truly imagining a post-work society, how do we structure a fair post-labour economy?

3. Humanity. How do machines affect our behaviour and interaction?

Artificially intelligent bots are becoming better and better at modelling human conversation and relationships. In 2015, a bot named Eugene Goostman won the Turing Challenge for the first time. In this challenge, human users used text input to chat with an unknown entity, then guessed whether they had been chatting with a human or a machine. Eugene Goostman fooled more than half of the human users into thinking they had been talking to a human being.

This milestone is only the start of an age where we will frequently interact with machines as if they are humans; whether in customer service or sales. While humans are limited in the attention and kindness that they can expend on another person, artificial bots can channel virtually unlimited resources into building relationships.

Even though not many of us are aware of this, we are already witnesses to how machines can trigger the reward centres in the human brain. Just look at click-bait headlines and video games. These headlines are often optimized with A/B testing, a rudimentary form of algorithmic optimization for content to capture our attention. This and other

methods are used to make numerous video and mobile games become addictive. Tech addiction is the new frontier of human dependency.

On the other hand, maybe we can think of a different use for software, which has already become effective at directing human attention and triggering certain actions. When used right, this could evolve into an opportunity to nudge society towards more beneficial behavior. However, in the wrong hands it could prove detrimental.

4. Artificial stupidity. How can we guard against mistakes?

Intelligence comes from learning, whether you're human or machine. Systems usually have a training phase in which they "learn" to detect the right patterns and act according to their input. Once a system is fully trained, it can then go into test phase, where it is hit with more examples and we see how it performs.

Obviously, the training phase cannot cover all possible examples that a system may deal with in the real world. These systems can be fooled in ways that humans wouldn't be. For example, random dot patterns can lead a machine to "see" things that aren't there. If we rely on AI to bring us into a new world of labour, security and efficiency, we need to ensure that the machine performs as planned, and that people can't overpower it to use it for their own ends.

5. Racist robots. How do we eliminate AI bias?

Though artificial intelligence is capable of a speed and capacity of processing that's far beyond that of humans, it cannot always be trusted to be fair and neutral. Google and its parent company Alphabet are one of the leaders when it comes to artificial intelligence, as seen in Google's Photos service, where AI is used to identify people, objects and scenes. But it can go wrong, such as when a camera missed the mark on racial sensitivity, or when a software used to predict future criminals showed bias against black people.

We shouldn't forget that AI systems are created by humans, who can be biased and judgemental. Once again, if used right, or if used by those who strive for social progress, artificial intelligence can become a catalyst for positive change.

6. Security. How do we keep AI safe from adversaries?

The more powerful a technology becomes, the more can it be used for nefarious reasons as well as good. This applies not only to robots produced to replace human soldiers, or autonomous weapons, but to AI systems that can cause damage if used maliciously. Because these fights won't be fought on the battleground only, cybersecurity will become even more important. After all, we're dealing with a system that is faster and more capable than us by orders of magnitude.

7. Evil genies. How do we protect against unintended consequences?

It's not just adversaries we have to worry about. What if artificial intelligence itself turned against us? This doesn't mean by turning "evil" in the way a human might, or the way AI disasters are depicted in Hollywood movies. Rather, we can imagine an advanced AI system as a "genie in a bottle" that can fulfil wishes, but with terrible unforeseen consequences.

In the case of a machine, there is unlikely to be malice at play, only a lack of understanding of the full context in which the wish was made. Imagine an AI system that is asked to eradicate cancer in the world. After a lot of computing, it spits out a formula that does, in fact, bring about the end of cancer – by killing everyone on the planet. The computer would have achieved its goal of "no more cancer" very efficiently, but not in the way humans intended it.

8. Singularity. How do we stay in control of a complex intelligent system?

The reason humans are on top of the food chain is not down to sharp teeth or strong muscles. Human dominance is almost entirely due to our ingenuity and intelligence. We can get the better of bigger, faster, stronger animals because we can create and use tools to control them: both physical tools such as cages and weapons, and cognitive tools like training and conditioning.

This poses a serious question about artificial intelligence: will it, one day, have the same advantage over us? We can't rely on just "pulling the plug" either, because a sufficiently advanced machine may anticipate this move and defend itself. This is what some call the "singularity": the point in time when human beings are no longer the most intelligent beings on earth.

9. Robot rights. How do we define the humane treatment of AI?

While neuroscientists are still working on unlocking the secrets of conscious experience, we understand more about the basic mechanisms of reward and aversion. We share these mechanisms with even simple animals. In a way, we are building similar mechanisms of reward and aversion in systems of artificial intelligence. For example, reinforcement learning is similar to training a dog: improved performance is reinforced with a virtual reward.

Right now, these systems are fairly superficial, but they are becoming more complex and life-like. Could we consider a system to be suffering when its reward functions give it negative input? What's more, so-called genetic algorithms work by creating many instances of a system at once, of which only the most successful "survive" and combine to form the next generation of instances. This happens over many generations and is a way of improving a system. The unsuccessful instances are deleted. At what point might we consider genetic algorithms a form of mass murder?

Once we consider machines as entities that can perceive, feel and act, it's not a huge leap to ponder their legal status. Should they be treated like animals of comparable intelligence? Will we consider the suffering of "feeling" machines?

Some ethical questions are about mitigating suffering, some about risking negative outcomes. While we consider these risks, we should also keep in mind that, on the whole, this technological progress means better lives for everyone. Artificial intelligence has vast potential, and its responsible implementation is up to us.

61. According to the opening paragraph, in what way are artificial intelligence systems transforming our lives?
    a. Making our world less complicated.
    b. Making our world less efficient.
    c. Making our world less inefficient.
    d. Making our world safer.

62. What's the complete summary for the 2nd paragraph of the introduction?
    a. The progress in AI development is making our lives better and richer
    b. Intelligent machines must be checked thoroughly before being brought to the market
    c. Although progress can bring many positive points to societies, it's vital risks and ethics are also taken into account
    d. As frontiers are being opened up by the boundless landscape of AI, we cannot go to sleep at night

63. What is one ethical concern related to artificial intelligence and employment?
    a. Automation will create more poorly-paid jobs
    b. Automation will make certain jobs obsolete
    c. Automation will help workers earn more money
    d. Automation will give workers more holidays

64. Why is the author using the example of Tesla's self-driving trucks?
    a. He thinks the automation of the trucking industry is inevitable
    b. If we reduce the risk of accidents by this automation, self-driving trucks are a bonus
    c. Pushing for more and more automation will lead to mass unemployment
    d. He wants to weigh up the pros and cons of development

65. "We can only hope that this opportunity will enable people..." What does this phrase mean?
    a. A future in which lots of people will be unemployed may be a challenge to society
    b. He thinks people will soon find more meaning in unemployed lives
    c. Mass unemployment through automation may lead to more contribution to society
    d. The author is very sceptical about the benefits of people having no more jobs

66. "We are already seeing a widening wealth gap" this means:
    a. the differences between rich and poor people are currently increasing
    b. the difference between poor and rich is decreasing
    c. a gap in income has existed as long as humanity has been around
    d. after AI is everywhere in society, rich people will become wealthy and wealthier

67. In this sentence - "roughly the same revenues were generated by the three biggest companies in Detroit" – "roughly" means in this context:
    a. approximately
    b. hardly
    c. not quite
    d. certainly

68. In chapter 2: Inequality, "If we're truly imagining a post-work society, how do we structure a fair post-labour economy?" What is presented as the main problem here?
    a. When people have no more wages, they have no income
    b. Who is going to pay for the AI system installation?
    c. We are going to have to find a new distribution system of wealth
    d. The fewer employees there are, the higher the profits are for the employers

69. What is one example of how artificially intelligent bots can model human conversation and relationships?
    a. By mimicking human interaction
    b. By using rudimentary algorithmic optimization
    c. By channelling virtually unlimited resources into building relationships
    d. By making humans addicted to games

70. "This milestone is only the start of an age". What is NOT a possible synonym for 'milestone' here?
    a. a breakthrough
    b. a distance measurement
    c. a landmark event
    d. accomplishment

71. "We are already witnesses to how machines can trigger the reward centres in the human brain" What is untrue about this statement?
    a. we are able to see how machines are capable of rewarding people
    b. video games and clickbait headlines are evidence that machines know what people like
    c. triggering reward centres is an unconscious side effect of algorithmic optimization
    d. all the answers are true

72. What are 'clickbait headlines'?
    a. tricks to make people buy more fake newspapers
    b. misleading information on websites
    c. creative article titles to tempt people to open then
    d. commercial banners people can click on to open fake news sites

73. "Tech addiction is the new frontier of human dependency". What is the best alternative phrase for this?
    a. Technology keeps humans expanding their knowledge to the limits
    b. Like all addictions, tech addictions are detrimental
    c. People spending too much time on their screens is a relatively new phenomena in human society
    d. Depending on addictions is the aim of video games developers

74. What is one possible positive use for this kind of software as suggested by the last paragraph of point 3?
    a. It can sway society towards less antisocial behaviour
    b. Encouraging tech addiction can be detrimental if used by the wrong people
    c. Causing people to become less isolated
    d. None of the above

75. An opportunity to nudge society towards more beneficial behaviour. What is a synonym for "to nudge"?
    a. to direct
    b. to force
    c. to propose
    d. to expose

76. In point 4, what is stated as one possible problem of relying on AI to bring us into a new world of labour, security, and efficiency?
    a. Machines may perform as planned and guard against their own mistakes
    b. Machines may not perform as planned and become unreliable
    c. People may use machines to overpower the world
    d. People may use machines to earn more money for their own ends

77. What is untrue about AI and bias?
    a. AI is capable of being biased, even if programmed by the people with good intentions.
    b. AI can be taught to be biased against certain races or ethnicities
    c. Google was unintentionally biased when predicting future criminals with its software
    d. AI is only biased when it's programmed by a judgmental programmer

78. "If used by those who strive for social progress, artificial intelligence can become a catalyst for positive change." What is 'to strive for'?
    a. protest for
    b. accomplish
    c. try to achieve
    d. realise

79. What is not mentioned in point 6 "security"?
    a. If this technology becomes very powerful, it can turn against us
    b. If battlefield AI falls in nefarious hands, it can do immense damage
    c. Warfare will not only be physical but also virtual
    d. If this technology keeps on improving it's essential, that cybersecurity keeps pace

80. What does the author think about the probability of Hollywood AI disaster scenarios?
    a. He doesn't think AI will ever turn against humanity
    b. He increasingly worries about these scenarios
    c. He doesn't think machines are intelligent enough to become 'evil'
    d. Hollywood scenarios are exaggerated, yet AI can come to unpleasant solutions to given problems

81. In the case of a machine, there is unlikely to be malice at play. What is the correct translation of unlikely?
    a. improbable
    b. unpleasant
    c. inaccurate
    d. displeasing

82. What is the main point made by the author when he describes AI's solution to eradicate cancer?
    a. that AI is more logical than humans
    b. that constant monitoring of AI systems by humans will remain required
    c. AI systems are inherently unable to understand the full context
    d. AI can intentionally override emotions when it's more efficient

83. Why does the author use the 'top of the food chain' phrase?
    a. to show that people are smarter than animals
    b. to indicate that stronger and faster does not equal survival
    c. to show how far mankind has evolved so far
    d. to illustrate that AI may have the same edge over mankind, that AI can have over us

84. According to the text, why can't we just rely on 'pulling the plug'?
    a. because of singularity
    b. a truly intelligent AI will be able to foresee this and counteract it
    c. a sufficiently advanced machine
    d. the machine will be able to provide alternative power supplies

85. What is said about the work on 'conscious experience'?
    a. neuroscientists are swiftly uncovering its secrets
    b. the secrets of its functioning are not revealed
    c. we understand almost everything about reward and aversion mechanisms
    d. although more and more of it is understood, there are still secrets to be unlocked

86. "They are becoming more complex and life-like" What is life-like?
    a. realistic
    b. truly alive
    c. capable of emotions
    d. conscious

87. Which mechanisms do we share with animals?
    a. reward and emotion
    b. sensory-motor and aversion
    c. reward and aversion
    d. sensory-motor and emotion

88. "Once we consider machines as entities that can perceive, feel and act, it's not a huge leap to ponder their legal status." What is 'to ponder'?
    a. to discuss
    b. to talk about
    c. to fight about
    d. to think about

89. What is one ethical concern related to the position of AI systems themselves?
   a. AI cannot suffer pain and is therefore inferior
   b. AI may become so intelligent to require its own legal status
   c. AI may become too accurate and invade people's privacy
   d. AI are more intelligent than animals and should be protected equally

90. What is the main summary of the author?
   a. All technological progress should be weighed down with reasonable caution
   b. If ethical questions mean suffering, we ought to slow down progress
   c. The positives of AI development outweigh the negatives
   d. Although there may be drawbacks, the potential of AI development will benefit us all

End of the test