

1.1 Which of the following is NOT a result of the 21st century automation revolution?

Destruction of creativity

1.2 How can the intelligent automation revolution create even more unequal conditions and opportunities in the workplace?

Low skilled workers may not get opportunities to get job training to reskill and upskill themselves.

1.3 Which of the following describes an effect of the emerging AI technologies on the younger generation?

Increasing number of young people are becoming “food insecure.”

1.4 Which of the following is NOT a reason for the increasing number of people engaging in “ghost work”?

They pay well.

1.5 According to Yuval Noah Harari, why is “intelligent automation” a bigger threat to humankind than “automation”?

There could be a rise of “unemployable” class of people.

2.1 Although there has been a noticeable increase in data poisoning attacks in recent years, it hasn't been too difficult for cybersecurity professionals to identify and fix the problem.

Wrong

2.2 Due to the advancements in AI technology, a great deal of specialized training is required to use AI-powered smart weapons properly.

Wrong

2.3 AI-powered deepfake technology has allowed the audience to see their favorite movie characters on the big screen even long after the death of the actors. However, the same AI technology has also proven to be quite dangerous, especially when used to create and spread fake news and engage in phishing attacks. Such beneficial and harmful aspects of AI make it a dual use technology.

True

2.4 In our class video, we learned that autonomous weapons can be used in attacks with just the click of a mouse. This is an example of how

AI systems can increase anonymity and psychological distance.

2.5 Which of the following is NOT a method used by “social engineering” attackers?

They prefer attacks that are done quickly with a single email.

3.1 “Personalized pricing” is an ethical issue because an AI-driven system can exploit an individual’s emotional data and set flexible prices.

Wrong

3.2 AI surveillance technology is mainly used by authoritarian or centralized governments.

Wrong

3.3 Which of the following is critical to the concept of “privacy”?

Choice

3.4 What is the main problem of data collection?

Data is collected without the knowledge of the data owners or subjects.

3.5 Which of the following does NOT describe an ethical problem of creating private user profiles?

These profiles can cause great damage to the users because they could be created with fake personal data.

4.1 The story of St. George’s Hospital Medical School (an example of AI bias) shows that

Algorithmic outcomes tend to reflect the social and cultural atmosphere.

4.2 What does “garbage in, garbage out” mean in the world of computer science?

It means that the quality of the results depends on the quality of the data.

4.3 Consider the following situation: A medical research team is creating an algorithm to identify the side-effects of a newly developed vaccine for a highly infectious disease. This algorithm is being trained on data from white men who have received the vaccine. This case would be an example of

selection bias

4.4 Which of the following is NOT a concern when it comes to using AI in the school admissions process?

AI systems will automate tasks traditionally done by humans, and many university employees who have worked in admissions will experience job loss.

4.5 Which of the following is NOT a concern when it comes to using AI in the hiring process?

AI-driven recruitment and hiring programs tend to be intentionally designed to reflect gender and racial biases existing in a society.

5.1 It is not easy to create a set of ethical guidelines for self-driving vehicles because moral and ethical principles that guide driver's decisions can vary and are culturally specific.

Correct

5.2 Which of the following is TRUE about medical AI algorithms?

They are semi-automatic algorithmic decision systems.

5.3 Which of the following is NOT a problem of equality associated with ADS?

Most of ADS' discriminatory decisions are due to deliberate introduction of biases into the algorithm by human programmers.

5.4 Which of the following is NOT a problem of privacy associated with ADS?

Many countries do not take privacy and data protection seriously

5.5 Which of the following is a problem related to "filter bubbles"?

Many people aren't aware that the content that they are exposed to online has been selected or ranked by an algorithm.

6.1 How are the newer versions of AlphaGo systems such as Alpha Zero becoming even more powerful than the previous versions, such as the one that beat Lee Sedol?

They are learning without any human supervision.