

Explain the phrase: “data saves lives”.

- A. Commercial hype disseminated by internet and cellphone provides to boost sales and profits.
- B. Processed data can be used to improve human health (*e.g.* food distribution, disease tracking and disaster relieve).
- C. Raw data that provide resources and a livelihood for computer scientists.
- D. A. and C. are both correct choices.
- E. A., B. and C. are all correct choices.

Big data is used to save lives by targeting human health issues such as efficient food distribution to reduce waste/target people in need and track disease to reduce infections/distribute aid.

Which of the following situations can be addressed by computer analysis of large data sets?

- A. Computer-generated commuting routes based on real-time traffic patterns.
- B. Computer-generated novel/innovative teaching techniques based on established classroom practices.
- C. Computer-graded essays that are reliably scored based on previously graded papers.
- D. A. and C. are both correct choices.
- E. A., B. and C. are all correct choices.

Large data sets are used for pattern recognition such as words or phrases present or absent in an essay that are associated with an outstanding or inadequate assignment; or traffic patterns collected from cell phones that predict suitable or inappropriate traffic routes. Big data can be used to identify existing patterns but *cannot* identify novel/innovative ideas such as new teaching techniques.

How can we best protect personal data when addressing societal challenges such as world hunger?

- A. Eliminate the exchange of data into or out of humanitarian organizations.
- B. Users beware: the protection and safeguard of personal data is the responsibility of each person.
- C. The collection of personal data need to be anonymized before being shared.
- D. Personal data need to be reviewed by an unbiased third party before being released to the public.
- E. Internet platforms such as Wikileaks need to be closed to prevent widespread dumping of personal data.

To protect personal information, data need to be anonymized (decouple the person from the data collected) before being shared with others; simply eliminating the exchange of data will eliminate the benefits of humanitarian agencies improving efficiencies for those in need.

Which of the following statements best summarizes utilizing technology to address world hunger?

- A. Food-selection choices by aid agencies are too client specific for efficiency improvements.
- B. Minimizing government and/or corporate intervention is the start to efficiency improvements.
- C. The gathering of food-collection data by corporations is a violation of consumer privacy.
- D. The sharing of corporate data and expertise with humanitarian-aid agencies increases food-selection and distribution efficiencies.
- E. Corporate profits from technology advances need to be directed to address world hunger.

Thoughtful and sensible cooperation of corporations and humanitarian-aid agencies increases food-selection and distribution efficiencies.

What is/are challenge(s) as well as requirements of analyzing big data?

- A. Large volumes of data.
- B. Data is rapidly collected.
- C. Data interpretation by decision scientists.
- D. None of the above.
- E. A., B. and C. are all correct.

Large and rapidly collected data sets is a challenge as the data needs to be stored and annotated but it is also necessary for big data analysis; robust pattern recognition requires large data sets. Data interpretation is also a requirement and challenge for big data analysis.

I enjoy having discussions with people whose ideas and values are different from my own.

- A. Strongly Disagree
- B. Disagree
- C. Neutral
- D. Agree
- E. Strongly Agree

College is an opportunity to discuss and learn about ideas and values different from your own with peers as well as faculty and staff in which differing ideas and cultural diversity are accepted.

I enjoy taking courses that challenge my beliefs and values.

- A. Strongly Disagree
- B. Disagree
- C. Neutral
- D. Agree
- E. Strongly Agree

College is a time to expand your understanding and knowledge of the world around you through everything from chemistry classes that cover how molecules behave in nature to political science courses that examine how nations can exist relatively harmoniously through international treaties and agreements.

Contact with individuals whose background (*e.g.* race, national origin, and sexual orientation) is different from my own is an essential part of my college education.

- A. Strongly Disagree
- B. Disagree
- C. Neutral
- D. Agree
- E. Strongly Agree

College with a large diversity of people is an opportunity to interact and learn from people whose cultural background or identity may be different from our own within a relatively safe environment.

I think a diverse group of friends can really enrich my life.

- A. Strongly Disagree
- B. Disagree
- C. Neutral
- D. Agree
- E. Strongly Agree

College is an opportunity to expand beyond your hometown friendships or our academic focus to gain a larger perspective on global issues; a greater global perspective through personal relationships is an important marketable skill whether working in industry or an academic setting.

I am okay with working with others in which their cultural background seems foreign to me.

- A. Strongly Disagree
- B. Disagree
- C. Neutral
- D. Agree
- E. Strongly Agree

Both academic and industrial employers are demanding the ability of their employees to work and effectively communicate with people from other cultures; such ability is acquired through working and collaborating with people of diversity.