Computational Ethics - Assignment 1

Multiple Choice Questions (Each question carries 1 mark.)

1. () is the code of morals of a particular person, group, or profession.

    a) Behavior
    b) Morals
    c) Ethics
    d) Etiquette

2. Ethics is a discipline that does **not** study ().

    a) What is right and wrong
    b) What is good and bad
    c) What is virtuous and vicious
    d) What is legal and illegal

3. Ethics can be divided into:

    a) Meta ethics
    b) Normative ethics
    c) Virtue ethics
    d) Obligation ethics

4. Ethical issues do **not** include:

    a) Privacy issues
    b) Copyright issues
    c) Moral issues
    d) Legal issues

5. Computational ethics is ().

    a) The acts that damage computer software deliberately
    b) The ethical rules governing the use of computing technology
    c) The unauthorized use of computers

6. Computational ethics does **not** consider ().

    a) Discrimination
    b) Unfairness
    c) Data bias
    d) Dataset shift

7. The bias of an AI-based decision-making system may be caused by ().

    a) Data
    b) Model (Algorithm)
    c) User
    d) Law

8. In software development, which of the following could be considered unethical behavior?

    a) Not considering user experience
    b) Copying other's code and using it for your own project

c) Fixing vulnerabilities in software to enhance its security

d) Releasing software for all users to use

9. Studying human () does **not** help the development of computational ethics.

   a) Cognitive architecture

   b) Cognitive schema

   c) Body schema

   d) Psychological architecture

10. Ethical issues in computer science encompass areas such as:

    a) Data privacy

    b) Intellectual property rights

    c) Cybersecurity

    d) The ethical use of artificial intelligence

11. () is ideas put into action, such as writing, music, art, computer code and inventions that can be protected under copyright or patent laws.

    a) Intellectual property

    b) Copyright protection

    c) Share ware

    d) Public domain software

12. Which of the following would be considered ethical access to a computer database?

    a) Going into the main office at school and changing your grades without permission

    b) Using the computer catalog in the media center to search for a book

    c) Breaking into a government database and reading confidential information

    d) Changing a misspelled word on the school's website

13. The correct relationship between law and ethics is ().

    a) The behaviors covered by the law are broader than those covered by ethics.

    b) The behaviors covered by ethical standards are broader than those covered by the law.

    c) Ethics can replace law.

    d) Ethics and law are completely opposite.

14. Gemini is a family of generative AI models developed by Google DeepMind. Recently, Google halted Gemini's image generation of people after it drew images of people of color holding positions historically held by whites [1][2]. More specifically, users found it difficult for Gemini to generate images of white people. Most of the generated characters were people of color. Even Washington, the first president of the United States, was painted as "black."

    This is not the first time that generative artificial intelligence has shown bias. Previously, Midjourney (an image generation platform) generated mostly white male images when inputting "CEO" and mostly female images when inputting "nurse".

    What do you think causes the bias in AI generative models? The final answer must be no less than 200 words. (7 marks)

References

[1]https://aibusiness.com/responsible-ai/google-s-gemini-has-trouble-drawing-white-people

[2] https://www.cnn.com/2024/02/22/tech/google-gemini-ai-image-generator