Intelligent Machines, Ethics and Law (COMP2400/COMP6400)

Tutorial Tasks Week 2

Note: Please go through the two prior readings for this week's tutorial:

1. *OpenAI used Kenyan workers on less than $2 per hour to make ChatGPT less toxic* from the Time magazine (https://time.com/6247678/openai-chatgpt-kenya-workers/), and
2. *Is it ethical to use data from Nazi medical experiments?* from the Conversation: https://theconversation.com/is-it-ethical-to-use-data-from-nazi-medical-experiments-39928

If any of the links above does not work, please copy the link-address to your browser and search.

1. Define in your own words: a) Intelligence b) Intelligent Machines

2. Which of the following can be done using *Artificial Intelligence?*
   a. Play a decent game of table tennis?
   b. Drive safely along a curving mountain road?
   c. Buy a week's worth of groceries on the web?
   d. Buy a week's worth of groceries from Macquarie Centre?
   e. Converse successfully with another person for an hour?
   f. Perform a complex surgical operation?
   g. Translate spoken Chinese into spoken English in real time?
   h. Write an intentionally funny story?

3. This question presumes you have read the Time Magazine article *OpenAI used Kenyan workers on less than $2 per hour to make ChatGPT less toxic.*
   a. *The workers were paid decent wage compared to the wage structure in Kenya, and were also provided required counselling. As outcome numerous people were shielded from exposure to virtual toxicity. So it was ethical.* Discuss this standpoint.
   b. *What legal issues are raised by this article?*
   c. Compare the position taken in this article to the one expressed in the Conversation article on Nazi Medical Experiments.

4. (**) Consider the paragraph in Slide# 13 of Lecture 1.1 (Week 1) reproduced below. A purported paraphrase of this paragraph is also provided. Pretend that you are a marker and evaluate this paraphrase, and then answer the questions.

   Original Text

   "Because the intracellular concentration of potassium ions is relatively high, potassium ions tend to diffuse out of the cell. This movement is driven by the concentration gradient for potassium ions. Similarly, the concentration gradient for sodium ions tends to promote their movement into the cell. However, the cell

membrane is significantly more permeable to potassium ions than to sodium ions. As a result, potassium ions diffuse out of the cell faster than sodium ions enter the cytoplasm. The cell therefore experiences a net loss of positive charges, and as a result the interior of the cell membrane contains an excess of negative charges, primarily from negatively charged proteins."[1] (p. 204).

A Purported Paraphrase

Because the intracellular concentration of potassium ions is _ high, potassium ions tend to diffuse out of the cell. This movement is triggered by the concentration gradient for potassium ions. Similarly, the concentration gradient for sodium ions tends to promote their movement into the cell. However, the cell membrane is much more permeable to potassium ions than to it is to sodium ions. As a result, potassium ions diffuse out of the cell more rapidly than sodium ions enter the cytoplasm. The cell therefore experiences a _ loss of positive charges, and as a result the interior of the cell membrane contains a surplus of negative charges, primarily from negatively charged proteins.[1] (p. 204).

a. What is the source of the original text?
b. How would you describe the attempt above at paraphrasing the original paragraph?
c. Would you consider this paraphrasing as plagiarism?
d. How about something along the line:

   Because of the relatively high concentration of potassium ions inside the cells, there is a tendency among the potassium ions to diffuse out of the cell. This is caused by the concentration difference of or potassium ions inside and outside the cells.…

e. Modify the citation and referencing style in the original text to APA7

5. (**) Paraphrase the original text from Question (4) in your own words.

[1] F. H. Martini & M. S. Bartholomew, Essentials of Anatomy and Physiology, Upper Saddle River, NJ: Prentice Hall. 1997