

IT2023 ASSIGNMENT 03 (Due Date: Nov 3, 2023)

Instructions: You only have to answer all questions. Your answers can be in either Chinese or English. The following points should be noted.

- If you use a word processing software to edit your answer, please make sure that the file to be submitted is either in WORD or PDF format.
- You need to submit the answer file before the due date to the Gmail account johnsum.nchu@gmail.com.
- Email heading must be conformed to IT2023_Assignment03_studentID.
- File name must be conformed to IT2023_Assignment03_studentID.
- It is a bonus assignment. If you are too busy to complete the assignment, you can just skip it.

The assessment of this course is solely depended on your work in the course project including your written report and your oral presentation. The scores obtained from the assignments are bounce which are added up on your project score.

Question 1

In the lectures, I have introduced many large language models like ChatGPT and Google Bard. Right now, those services are free of charge. As I have mentioned in the class that advancing and maintenance of such models require a lot of computational resources. In other words, the budget for advancing and maintenance of such models should not be small. In this regard, OpenAI and Google should have strategies for selling these LLM services.

- (a) How does a firm can get benefit from the LLM service?

- (b) Which firm(s) is(are) the potential customer(s) of these LLMs?

- (c) How OpenAI and Google are able to get profits from their LLM services?

Question 2

In my lecture diary, I have mentioned that *generative model* and *generative learning* are not new concepts. They have been appeared for decades.

- (a) Describe what *generative learning* is in the area of *education*.
- (b) Comment if the process of *generative learning* is similar to the *hypothesis generation* in the Piaget's *formal operation stage* of cognitive development.
- (c) Comment if the process of *generative learning* is closely related to the process of *imitation* or *imagination*.