

Faculty of Engineering & Technology Department of Electrical & Computer Engineering ENCS4210: Computer Engineering Ethics Second Semester, 2022/2023 Term Paper

Published: April 26, 2023. Due: June 11, 2023 by midnight. [submit on ITC portal]

Topic: "Ethics of AI System Development"

Main Questions:

- 1- Will Artificial General Intelligence (AGI) be achieved?
- 2- What are the dangers of AGI, if it becomes a reality?
- 3- What is the responsibility of companies or individuals developing AI systems?
- 4- Is GPT-4 intelligent enough to be considered AGI?
- 5- Should advanced AI systems, large language models, or LLMs, such as GPT-4 and ChatGPT, be closed-source or open-source?
- 6- Should advanced AI systems, large language models, or LLMs, such as GPT-4 and ChatGPT, be under the control of private, for-profit companies? Or should they be controlled by non-profit, non-governmental organizations? Or should they be controlled by governments?
- 7- What is the role of governments in regulating AI systems?

The following topics are <u>NOT within the scope of this paper</u>: (the following are legacy AI issues, and have been discussed by many. We need to focus on new issues concerning AGI and large language models, or LLMs)

- 1- AI taking human jobs.
- 2- Driverless cars.
- 3- Discrimination due to machine learning with biased data.
- 4- Privacy concerns due to data mining of customer data.

Requirements:

- 1- The paper must be at least 3000 words.
- 2- Use proper formatting, citations, and references.
- 3- Wikipedia pages are allowed, but you must use at least 5 references that are NOT Wikipedia pages.
- 4- You may choose to write your paper in Arabic. It does not give you any advantage or disadvantage in the evaluation.

Suggested References:

- 1- Sebastien Bubeck. "Sparks of AGI: early experiments with GPT-4" [YouTube Video]. Published Apr 6, 2023. URL: "https://www.youtube.com/watch?v=qbIk7-JPB2c"
- 2- Tristan Harris and Aza Raskin. "The A.I. Dilemma" [YouTube Video]. Published Apr 5, 2023. URL: "https://www.youtube.com/watch?v=xoVJKj8lcNQ"
- 3- Many signatories. "Pause Giant AI Experiments: An Open Letter" [Online Petition]. Published March 22, 2023. URL: "https://futureoflife.org/openletter/pause-giant-ai-experiments/"
- 4- Toby Shevlane. "Sharing Powerful AI Models" [Research Brief]. Published January 20, 2022. URL: "https://www.governance.ai/post/sharing-powerful-ai-models"
- 5- Nick Bostrom. "Strategic Implications of Openness in AI Development". Global Policy. Published February 9, 2017. URL: "https://onlinelibrary.wiley.com/doi/full/10.1111/1758-5899.12403"