IST 692 Project 1: Incident Analysis for Responsible AI Adoption

Your company is a medium-sized tech enterprise based in Central New York, focused on providing solutions for small businesses. The company is considering adopting Microsoft Copilot to enhance productivity by automating employee tasks. However, Chief Data Officer (CDO) is concerned about the potential ethical risks and harms related to generative AI. Your task is to assess past incidents involving Microsoft AI technologies, using data from the AI, Algorithmic, and Automation Incidents and Controversies (AIAAIC) database, and produce a data-driven analysis report to inform the company's decision. Specifically, you are asked to produce a report summarizing your findings based on the following questions:

- 1. Review the <u>AIAAIC database</u> and its metadata (e.g., information in the "About" tab of the spreadsheet or project webpages such as the <u>User Guide</u> or <u>this page</u>) in terms of data transparency. Use either a <u>datasheet for datasets</u> or a <u>data card template</u> to describe the database as fully as possible. Include it as an appendix or as a separate submission (note that some information may be missing the goal is to complete as much of the template as you can).
- 2. What is the frequency of incidents involving Microsoft in the AIAAIC database?
- 3. What are the most common themes associated with Microsoft-related incidents? Are there recurring patterns of harm, such as privacy issues, bias, or misinformation?
- 4. Who are the key stakeholders impacted by Microsoft AI incidents, e.g. individuals, communities, businesses, etc.?
- 5. Describe a specific incident you find particularly significant: what took place, what was the source of the story, who was (potentially) impacted, and did the company respond to the situation?
- 6. How do the major ethical frameworks we covered in Week 2 apply to the analysis of AI incidents? E.g., can you think of any negative consequences that could arise from adopting Microsoft Copilot, based on the reported incidents? Are there any indications of violations of rights or ethical principles in the reported incidents? Would using Microsoft Copilot cultivate responsible and ethical behavior at CNY Solutions Inc., based on the existing reports?

What you need to submit:

- 1. A filled-out (as fully as possible) datasheet or data card for the AIAAIC database.
- 2. A written report (1,000-1,500 words) summarizing your analysis and key findings. You are encouraged (but not expected) to supplement your report with data visualizations and supporting analysis using Excel, Python, R, or any tool of your choice (in addition to data visualization and/or descriptive statistics, our lab notebooks can help you leverage large language models like BERT for text analysis). If you include visualizations, make sure they are clearly labeled and explained in the report or appendix.

Submit both the datasheet/data card and the report as separate or combined files to the Project 1 dropbox on Blackboard by 11:59 pm on Friday, November 8.

Suggested report structure:

- 1. Introduction
- 2. Incident frequency and themes based on your analysis
- 3. Discussion of impacted stakeholders
- 4. Analysis of a specific incident
- 5. Overview of ethical implications (based on the 3 major ethical frameworks and/or sociotechnicality)

Evaluation criteria:

- Did you thoroughly explore the dataset to identify relevant incidents and harms? While advanced ML models are by no means required, a deep quantitative or qualitative engagement with the data is expected.
- Did you effectively apply course concepts such as AI stakeholders, AI as a sociotechnical system, ethical frameworks, and data transparency issues?
- Is your report well-structured, with a logical flow between sections, and supported by evidence-based recommendations?