To: Dr. Erika Paterson
From: Jade Duan
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Subject: Proposal for Assimilating AI Ethics Awareness into Computer Science Course Projects

**Introduction**

In the rapidly evolving computer science field, experts have been making enormous progresses on digital automation. The recent development of AI (“Artificial Intelligence”) applications is attracting more and more attention. While very helpful in assisting with daily tasks, those tools present ethical challenges to both creators and users. Questions like where to draw the line between plagiarism and creative reference, and how to ensure the moral integrity of input data, have arisen since.

As computer scientists, instructors and students of computer science at UBC have resources to take precautions against unethical creation and usage of AI applications. The instructors, especially, have the power of revising course syllabuses to incorporate such precautions.

**Intended Audience**

UBC Computer Science department Associate Head of Operations Prof. Steve Wolfman, and the teaching team of CPSC 210.

**Statement of Problems**

Concerns about legal fair use of AI applications were brought forth by professionals whose works have been used for training AI models (sets of formulas to produce desired contents with variable user inputs). They claim that the AI creators are conducting theft by using those data without the owners’ consent. Other concerns are about the ill-formed social values instilled through unfiltered training data (data used to establish and verify AI models). There are reports showing exploitative usage of AI, such as deliberate disinformation (Villasenor), biased analysis (“Machine Bias”), abusive videos (Lee), etc.

Most concerns are rooted in human factors behind AI, signaling a low confidence in the awareness of AI ethics. Raising awareness requires collective social effort, and educational institutions like UBC have not had time to fully address it yet.

**Proposed Solutions**

To increase AI ethics awareness in students, one possible way is to include relevant practice projects in computer science courses. Computer science courses are designed to teach students about machine assisted automation, which builds the foundation for understanding how any program works. With this foundation, students can logically comprehend the causes and consequences of inferior ethics in AI programs. Thereafter, students will be able to propagate useful insights to other people in their communities, improving social awareness on the whole.

**Scope**

For assessing the feasibility of implementing AI ethics awareness projects into computer science courses, I prepare to conduct inquiries in the following six directions:

1. What are existing methods of educating people about AI fair use? How much influence are they casting?
2. What do students think about AI usage? Do they support more authoritative regulations, or decentralized moderation, or other?
3. Do students have interest in learning AI ethics in general? If they do, would they want to do projects to gain relevant knowledge?
4. Are students willing to do appointed projects instead of free-style projects for certain courses, if they are compensated with extra marks? If they do, what amount of marks would be acceptable?
5. If they are not willing to do appointed projects for marks, would they do peer-guided AI ethics awareness projects during academic breaks?
6. Would any student volunteer to design AI ethics awareness projects with course staff?

**Methods**

Primary source for initial study will be data collected through online surveys. Secondary sources will include videos and news illustrating improper usage of AI, as well as articles on experts’ opinions about AI ethics.

I will analyze the survey submissions, do data visualizations, and find out the most probable answer to each of the questions listed in the survey. Then combining the results with further insights obtained through the secondary sources, I will establish convincing logical relations among students' views, industry professionals' visions and the positive effects of the proposed solution.

**My Qualifications**

I am majoring in computer science, and have finished three computer science courses, one of which involved building a practice project. Besides, I have experience using generative AI applications, such as Stable Diffusion (for generating illustrations and photos), ChatGPT (for simulating human conversations), and Rytr (for writing general purpose short articles). Therefore, I not only have firsthand knowledge of computer science course projects at UBC, but also am aware of the importance of AI ethics.

**Conclusion**

Elevating the public’s awareness of AI ethics will be a long process, thus should be done as early as possible. Educational institutions like UBC could contribute to that cause by repurposing some of its resources. Computer science students, who are already exposed to the most advanced AI technologies, is a community where early-stage experiments can be conducted relatively easily. By investigating the six inquiry directions mentioned earlier, I can assess the feasibility of integrating AI ethics awareness elements into computer science courses. Upon your approval, I will carry out my research immediately.

Works Cited

“Artificial Intelligence.” *Wikipedia*, 21 Feb. 2023, https://en.wikipedia.org/wiki/Artificial\_intelligence. Accessed 22 Feb. 2023.

Lee, By Dave. “Deepfakes Porn Has Serious Consequences.” *BBC News*, 3 Feb. 2018, https://www.bbc.com/news/technology-42912529. Accessed 22 Feb. 2023.

“Machine Bias.” *ProPublica*, 23 May 2016, https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing. Accessed 22 Feb. 2023.

Villasenor, John. “How to Deal with AI-Enabled Disinformation.” *Brookings*, 23 Nov. 2020, https://www.brookings.edu/research/how-to-deal-with-ai-enabled-disinformation/. Accessed 22 Feb. 2023.