Academic Festival

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Advanced Computer Ethics: A Study of Artificial Intelligence

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Advanced Computer Ethics:
A Study of Artificial Intelligence

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Computer Science: Game Design & Development

THESIS

Justice, Autonomy, Freedom, Democracy, Equality, Privacy and the Common Good are all values that can be supported or threatened by computer technology. In this course, I will examine these values as issues that arise as the intersection of ethics, computers, technology, and society are addressed. I will also be closely studying (and presenting a project) on Artificial Intelligence.

GOALS & OBJECTIVES

Goals:

To better understand the effect of technology and the Technological Age on society.

To better understand the role that Ethics plays in the field of Computer Science.

To recognize community and social responsibility in the development of software and a commitment to the common good.

To learn how intellectual property is gathered, transmitted and shared.

To understand the power and responsibilities inherent in developing and using technology.

To learn to respect differences related to culture, communication styles and gender.

Objectives:

To gain the ability to explain and critically analyze a thematic issue, problem, or question using the knowledge, concepts, and/or methods of inquiry from computer and information ethics.

To develop the ability to construct logical arguments in their writing and oral communications by integrating appropriate evidence.

BACKGROUND & SIGNIFICANCE

Considering that computer technologies are the fundamental infrastructure of the Information Age, ethical questions arise regarding access and control, privacy, property, identity and professional responsibility. It is important as a future Computer Scientist and Game Developer that I understand the ethical boundaries involved in software development.

METHODOLOGY

As per the goals of this project, I will learn how to read, summarize and critique published scientific articles, books and selected case studies. I will also be exposed to the variety of written formats including user documentation, internal programming comments, journals, papers and discussion boards. I will also use the critical thinking skills learned from the articles and books and apply them to my presentation on A.I. in order to not only present on the topic of A.I., but to also make a point as to why it's important (and why it's important to understand the ethics surrounding A.I.).

Considering that my presentation topic does not have an article associated with it like the rest of the students' presentations, I intend on making mine more thought-provoking and interactive via creative licensing. In this sense, I will not be following the guidelines of a specific article or piece of literature; I will, instead, be creating my own guidelines for this presentation to make it unique and engaging.

A.I.: REALITY & FICTION

A.I. Starring In:

Computing/Machinery
- Roomba
- Cleverbot
- IBM's *Watson*
- Cortana/Siri/Google Now
- Smart Cars/Autopilot Features
- Robots

Video Games/Film
- Character/Enemy A.I. Systems
- A.I.-Based Characters

Algorithms
- Search Engines
- Music Streaming (Pandora, Spotify, etc.)
- Recommended Ads

Google Brain's A.I. Education System
- Google Brain's experiment with three artificially intelligent systems aimed at having two of the systems create their own form of cryptographic communication.

MogIA
- Indian start-up founder and creator of *Genic.ai*, Sanjiv Rai's artificial intelligence system that has correctly predicted the past four presidential elections by crunching data from social media websites (Twitter, Facebook, Youtube, and Google).

Google Driver
- Google's artificially intelligent, self-driving car (that lacks a steering wheel, brake pedals, and a throttle).

Pop Culture
- Characters such as GLaDOS (*Portal* series); Sonny and VIKI (*i, Robot* movie); HAL 9000 (*2001: A Space Odyssey* movie); the Skynet System (*Terminator* franchise); and Cortana (*Halo* franchise).

PERSONAL REFLECTIONS

Take this time to reflect on the following questions, which I asked my previous audience (yes, I would be more than happy to discuss your answers!):

What is Artificial Intelligence to you?

Reflect on Google's "Self-Driving Car". The National Highway Transportation and Safety Administration told Google this car could be considered a legal driver. *Does this seem ethical to you? Does this even sound safe?*

What are the pros of creating Artificial Intelligence in the likeness of humans? The cons?

Should we be creating Artificial Intelligence in the likeness of humans?

Bonus Question: Can you tell which is the robot and which is its creator?

CONCLUSIONS

As per the criteria and goals laid out by the proposal, the first portion of the work I completed in this Honors By Contract Computer Ethics course involved getting a better understanding on the effect of technology and the Technological Age on society, the role that Ethics plays in the field of Computer Science, and to gain the ability to explain and critically analyze thematic issues, problems, and/or questions using the knowledge, concepts, and methods of inquiry from computer and information ethics alongside using logic and reason to communicate that knowledge in written argument form.

The extra work I put in to my study of Artificial Intelligence included doing out-of-class research for both my personal presentation and my final essay, which also dealt with the ethics involved in the creation (and "killing") of artificially intelligent machines via the Blade Runner movie. Given that we create artificial intelligence in a human likeness, it is important to pay attention to the ethical consequences that follow from these creations. In regards to the Replicants of Blade Runner and Google's self-driving car, there are a lot of aspects about both that deal with ethical situations mostly attributed to humans: such as having rights, specifically. My presentation stirred up a lot of discussion in regards to the ethics surrounding Google's car, and the conversation continued throughout the different topics of my presentation. I did indeed accomplish my Honors-oriented goal by making my oral presentation on Artificial Intelligence extremely thought-provoking and interactive, and my audience found it both interesting and informative.

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