Proposed Common Core Courses for Introduction in Summer 2020-21 and Beyond (Courses serving as Common Core Courses only)

COMP 1944 Artificial Intelligence Ethics

3 credits

Course Description

Artificial intelligence (AI) is disrupting every sphere of our work and lives, bringing unprecedented risks to society. This introductory course surveys the explosive area of AI ethics, illuminating relevant AI concepts with no prior background needed. Fake news bots. AI driven social media displacing traditional journalism. Drone warfare. Elimination of traditional jobs. Privacy-violating advertising. Monopolistic network effects. Biased AI decision/recognition algorithms. Deepfakes. Autonomous vehicles. Automated hedge fund trading. No area remains untouched. Policy think tanks, governments, and tech companies around the world have started paying serious attention to AI ethics. How will human civilization survive the rise of AI? What are the new rules? What are the ethical frameworks needed to avoid extinction? What are engineers' and entrepreneurs' ethical responsibilities?

Contribution of course to Programs of Study

Common Core

Teaching Activity (weekly scheduled hours)

Lecture - 3 hours

Assessment Tasks (Proportion of Final Grade)

In-class test - 20% Written assignment - 20%

Mid-term test - 10% Presentation - 25%

Course participation - 25%

Effective Semester

Fall 2021-22

Rationale for introducing this course and the consultation process undertaken

This AI Ethics course was requested by the President, Provost, Dean, and DH for HKUST, and may also become a course for the HKUST Guangzhou campus. The pilot run earlier this year (Spring 2020) was listed as a 4000-level special topics course with no prerequisites (COMP 4901M) and a second run in Spring 2021 will be offered, with the objective of becoming a Common Core course.

Tech ethics in the AI era of unprecedented exponential disruptions of society is fast becoming the most important issue of our times. The scale of the disruptions will be even larger than the Industrial Revolution and society must race to catch up with the impending consequences. Many top universities are introducing courses because it is essential that the young engineers, scientists, entrepreneurs, and humanities and social scientists that universities train are fluent and conversant with these issues that were not even on the radar half a generation ago.

Having achieved international recognition as a prominent speaker in the AI ethics and society field for a number of years now, as well as being one of the eight inaugural members named by Google last year to its AI ethics council, it seems very timely to bring this new Common Core course to life at HKUST. The provocation for many of the modules will be TED/TEDx talks (a number of which were given by me) to act as a point of departure for highly interactive discussion.