CARE-AI special session on AI ethics

ISTAS21 Special Session on Friday October 29th, 2021, 1–4pm (EDT)

Session Presenters

Clair Baleshta
PhD Student, Dept. of Philosophy
Western University

Dylan White
Ph.D. Student, Department of Philosophy
University of Guelph

CSAI Critics

Glen Reavie
MA Graduate, Department of Mathematics & Statistics
University of Guelph

Alysha Cooper
Ph.D. Student, Department of Mathematics & Statistics
University of Guelph

Moderators

Graham Taylor
Canada Research Chair in Machine Learning and
Professor, School of Engineering
University of Guelph

Joshua August (Gus) Skorburg
Asst. Professor, Department of Philosophy
University of Guelph

Canadian Start-Up Representatives

David Van Bruwaene, *Fairly AI*
Sarah Gignac, *Future Fertility*
Chris Schmidt & Laura McDonald, *Pluto Ventures*
Patricia Thaine, *Private AI*
Chloë Ryan, *Acrylic*

Scribe

Rency Luan
University of Waterloo

This extended special session began with a student-led AI Ethics paper presentation and critique. Dylan White presented his original work, "Analyzing Distrust in Human Interactions with AI." He argued "recommender systems" can lead to addiction, radicalization, and polarization through their bias confirming recommendations of videos, news, and more. Furthermore, he claimed "we should strive for the autonomy of the interactions involved", which will allow for a beneficial interaction with recommender systems. Conversely, Alysha Cooper, argued it is "human nature itself that is eroding our autonomy" and the recommender systems can help us overcome this. Next, Clair Baleshta presented her work on "Enactivism and Modelling Human Behaviour in AI." She focused on the "black box" problem which occurs when an AI system is opaque such that "humans cannot determine how its inputs are transformed into outputs." Glen Reavie offered an alternative lens and argued that it is we humans that "distrust the institution that uses those black box or opaque machine learning methods."

In the second half of the special session, five Canadian startup companies presented 5-minute pitches, followed by expert commentary and rounds of open discussion. First, David Van Bruwaene, CEO and Co-founder of Fairly AI addressed ways of building AI into the process of developing and validating systems for governance, risk, and compliance. He corroborated that the risk management market is projected at $15.7 trillion, which is why Fairly AI is supported by many people that see the influence of this technology. Dr. Sarah Gignac, representing Future Fertility, discussed the potential of their AI tool to "assess the probability of human eggs to develop into embryos." From here, she showed two models named Violet and Magenta. Violet is used to "assess eggs during the freezing process" and Magenta is used to "assess eggs during invitro fertilization or the IVF procedures." Furthermore, she noted how Future Fertility's AI model shows "higher accuracy in predicting either fertilization to embryo development" compared to other embryologists. Then, the discussion transitioned to Pluto Ventures, represented by CEO

and Co-founder Chris Schmidt and his associate Laura McDonald. They explained their company's specialization in AI that analyzes 2D pictures of a person's body, generating anatomically correct measurements, and demonstrated the efficacy of their software on screen during the session. Schmidt and McDonald suggested their software has great potential in health and wellness enterprises. A caveat they noted were the biases present in data sets, which is an ongoing challenge. From here, Patricia Thaine from Private AI discussed how their technology uses AI to strip personal data from chat transcripts, call logs, emails, and email institutions. The last panelist was Chloë Ryan, Co-Founder of Acrylic. Acrylic helps artists streamline their process with an AI tool that captures motion and brushstroke to learn, style, and generate original paintings.