

## Artificial Intelligence and Society Task Force Terms of Reference

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### Context

Artificial Intelligence (AI) is of great interest to the research world today, potentially driving innovative problem-solving. Both the federal and provincial governments have imagined this potential, recently investing in the Vector Institute for Artificial Intelligence, flagship of development in science, technology, engineering and mathematics (STEM), intended to spur economic growth by attracting top talent, investment and researchers from around the world and advancing AI research and adoption and commercialization of AI technologies across Canada. These investments represent a stellar opportunity for the University to engage in the development and application of AI. Given York's interdisciplinary strengths, we have a unique ability to engage in AI scholarship in a holistic manner, extending STEM to STEAM, to provide a broader perspective including impacts on humanity and society, in addition to the core technology and questions around technology adoption. York has great potential to be a leading participant in provincial and federal initiatives, noting our diverse expertise, ranging from philosophical, political and legal dimensions, ethical implications, changing workplaces, and the social context of AI, to biological, computing, engineering, business and health applications.

### Mission

The VP Academic & Provost along with the VP Research & Innovation are sponsoring an academic taskforce to develop ideas and examine options for building and featuring York's research strengths in the area of Artificial Intelligence. This taskforce will leverage collegial expertise, solicit advice and generate recommendations towards how York can advance research and take advantage of research, scholarship and academic opportunities in this area.

### Mandate

Without limiting the generality of the following, the committee will:

- Through consultations with the relevant communities, review the AI landscape at York to gain a better understanding of where there are current strengths
- In consideration of the overall institutional landscape, formulate a series of high level recommendations to coordinate the development of AI scholarship, research and academic program opportunities, both undergraduate and graduate, for the institution
- Identify opportunities for building on current strengths including in particular the potential for York to take a leadership role within AI scholarship, research and programming.

## **Membership**

### Executive Co-Sponsors

Vice-President Academic and Provost

Vice-President Research and Innovation

### Taskforce Co-Chairs

Appointed by the Executive Co-Sponsors

### Committee Members

Membership to be determined by the Co-Chairs in consultation with the Provost and VPRI and will strive to include representation from all Faculties to which AI is relevant and that has potential to contribute to this initiative.

## **Support**

The Artificial Intelligence Taskforce will be supported by VPRI staff that will

- Schedule and coordinate logistics of Taskforce meetings and events
- Circulate an agenda and documentation prior to each meeting
- Prepare and distribute minutes after the completion of each meeting
- Provide web support
- Support the writing of the Taskforce recommendations

## **Meetings**

The committee shall meet monthly, or as directed by the Co-Chairs. Meetings shall normally occur in person, but any business transacted at an electronic meeting (e.g. by telephone/teleconference or internet videoconference) shall carry the same weight as if transacted in person.

Minutes of each committee meeting shall be kept, and will be provided to committee members for their review and approval. Minutes will be posted on the Taskforce web portal, found on the VPRI website.

The committee is expected to operate by consensus.

## **Timeline**

The Task Force is expected to complete its report by April 2019.

## AI & SOCIETY TASK FORCE COMPOSITION

- **Pina D'Agostino (Co-Chair)**, Associate Professor, Osgoode, [gdagostino@osgoode.yorku.ca](mailto:gdagostino@osgoode.yorku.ca)
- **James Elder (Co-Chair)**, Professor & York Research Chair, Psychology, Health, EECS, Lassonde  
[jelder@yorku.ca](mailto:jelder@yorku.ca)
- **Alice Pitt**, Professor & Vice-Provost Academic, Vice-Provost, [vprovost@yorku.ca](mailto:vprovost@yorku.ca)
- **Rebecca Pillai Riddell**, Professor & Associate Vice-President Research, VPRI, Psychology, Health,  
[rpr@yorku.ca](mailto:rpr@yorku.ca)
- **Barbara Edwards**, Senior Policy Advisor, Research, (Task Force Support), VPRI, [barbb@yorku.ca](mailto:barbb@yorku.ca)
- **Kristin Andrews**, Associate Professor & York Research Chair, Philosophy, LA&PS, [andrewsk@yorku.ca](mailto:andrewsk@yorku.ca)
- **Aviv Gaon**, PhD Student, Osgoode, [avivgaon@osgoode.yorku.ca](mailto:avivgaon@osgoode.yorku.ca)
- **Hui Jiang**, iFLYTEK Endowed Professor, EECS, Lassonde, [hj@cse.yorku.ca](mailto:hj@cse.yorku.ca)
- **Murat Kristal**, Associate Professor, Management Science, Schulich, [mkristal@schulich.yorku.ca](mailto:mkristal@schulich.yorku.ca)
- **Mark Roseman**, Director, SIRI, Office of Research Services, VPRI, [roseman@yorku.ca](mailto:roseman@yorku.ca)
- **Shayna Rosenbaum**, Professor & York Research Chair, Psychology, Health, [shaynar@yorku.ca](mailto:shaynar@yorku.ca)
- **Terry Sachlos**, Assistant Professor, Mechanical Engineering, Lassonde,  
[terry.sachlos@lassonde.yorku.ca](mailto:terry.sachlos@lassonde.yorku.ca)
- **Ian Stedman**, PhD Student, Osgoode, [ianstedman@osgoode.yorku.ca](mailto:ianstedman@osgoode.yorku.ca)
- **Ruth Urner**, Assistant Professor, EECS, Lassonde, [ruth@eecs.yorku.ca](mailto:ruth@eecs.yorku.ca)
- **Graham Wakefield**, Assistant Professor & Canada Research Chair, Visual Art & Art History, AMPD,  
[grrrwaah@yorku.ca](mailto:grrrwaah@yorku.ca)
- **Jianhong Wu**, Professor & Canada Research Chair, Mathematics & Statistics, Science,  
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**YORK UNIVERSITY**  
**AI & SOCIETY TASK FORCE**  
**WORKING GROUP TOPICS**  
**(as of 4 December 2018)**

- Below are the topics agreed on in our last meeting with some potential questions to address (only a starting point)
- For all working group topics:
  - What is the current state at York?
  - How does this compare to other institutions in Ontario, Canada and abroad?
  - Where do we go from here to differentiate/distinguish York in the field of AI & Society?

	<b>Topic</b>	<b>People</b>
1	Faculty recruiting <ul style="list-style-type: none"> <li>• <i>What are the existing resources available to attract top talent?</i></li> <li>• <i>Do we have Canada Research Chairs or ability to attract?</i></li> <li>• <i>Potential for industry partnerships to endow chairships?</i></li> <li>• <i>Diversity: what we have and what we need to get</i></li> <li>• <i>Potential for cross-appointments?</i></li> <li>• <i>How do we recruit/retain faculty given headhunting from industry</i></li> <li>• <i>Potential for joint positions with industry?</i></li> </ul>	Hui Jiang Murat Kristal
2	Grad student and postdoc recruiting & training <ul style="list-style-type: none"> <li>• <i>How do we attract top talent?</i></li> <li>• <i>How do we train top talent to be academic and AI industry ready?</i></li> <li>• <i>What are the available resources to attract top talent? Scholarships to attract students from far and wide?</i></li> <li>• <i>How important are international grad students to AI research at York? How can we relax restrictions on recruiting international grad students?</i></li> </ul>	Hui Jiang Murat Kristal
3	Space / Infrastructure <ul style="list-style-type: none"> <li>• <i>Review of existing space &amp; infrastructure; identify gaps or ability for greater efficiencies</i></li> <li>• <i>Is space and infrastructure required to attract top talent?</i></li> <li>• <i>Do we need an actual AI footprint/ORU?</i></li> <li>• <i>Are there any industry/provincial/federal resources we can tap into?</i></li> <li>• <i>What is the importance of a research-focused AI building (cf. MIT's AI Lab, now CSAIL)</i></li> </ul>	Kristin Andrews Hui Jiang James Elder
4	Curriculum/ Academic Partnerships <ul style="list-style-type: none"> <li>• <i>Survey existing curriculum</i></li> <li>• <i>Identify curricular interventions necessary to promote AI</i></li> <li>• <i>What are the resource implications for developing AI curriculum?</i></li> </ul>	Kristin Andrews Murat Kristal Terry Sachlos Graham Wakefield
5	Networking: Seminars, websites, social media <ul style="list-style-type: none"> <li>• <i>What has already happened/review of past activities and</i></li> </ul>	Ian Stedman Ruth Urner

	<p>outputs</p> <ul style="list-style-type: none"> <li>• <i>What needs to happen (engagement with industry and community)?</i></li> <li>• <i>What are the available resources? What are the resource requirements?</i></li> </ul>	
6	<p>Ethics</p> <ul style="list-style-type: none"> <li>• <i>Can we identify some areas where AI has potential to do the greatest good for society? Should we promote these research directions?</i></li> <li>• <i>Should York establish an ethical position on issues relating to AI (bias, data ownership, privacy, etc)?</i></li> </ul>	<p>Kristin Andrews Ian Stedman Ruth Urner</p>
7	<p>Intellectual property, commercialization &amp; entrepreneurship</p> <ul style="list-style-type: none"> <li>• <i>What are York's current strengths and resources in this area?</i></li> <li>• <i>Can York be a leader in research and practice in IP law for AI?</i></li> <li>• <i>How can we facilitate IP protection for AI research @ York</i></li> <li>• <i>How can we facilitate licensing?</i></li> <li>• <i>How can we facilitate start-ups? Incubators? Joint grad programs with Schulich? Team projects with Schulich?</i></li> </ul>	<p>Aviv Gaon Terry Sachlos Jianhong Wu</p>
8	<p>Public &amp; Private Sector Partnerships</p> <ul style="list-style-type: none"> <li>• <i>Review of existing relationships</i></li> <li>• <i>'Nexus' labs where public/private sector staff can have temporary space to facilitate interaction?</i></li> <li>• <i>Marketing campaign focused on GTA, particularly North York, Vaughan, Markham?</i></li> <li>• <i>Additional permanent York staff who can handle complex agreements and negotiations?</i></li> </ul>	<p>Murat Kristal Shayna Rosenbaum</p>
9	<p>International Partnerships / Integration</p> <ul style="list-style-type: none"> <li>• <i>With which international universities do we have strong/growing connections in AI domain?</i></li> <li>• <i>What international university partnerships would be most strategic for York's AI vision?</i></li> <li>• <i>How can international partnerships strengthen our access to top grad students?</i></li> </ul>	<p>Hui Jiang Jianhong Wu Ruth Urner James Elder (M. Kyan)</p>
10	<p>Areas of Research Focus</p> <ul style="list-style-type: none"> <li>• <i>What are areas of current strengths in AI@York (core and applications)</i></li> <li>• <i>How are we distinguished from our competitors in these areas?</i></li> <li>• <i>What areas/questions do we predict to be most important in the next 5/10 years?</i></li> <li>• <i>How can we draw on York's broader strengths outside the AI domain to define a unique made@York AI strategy?</i></li> </ul>	<p>Kristin Andrews Shayna Rosenbaum Graham Wakefield Jianhong Wu Ruth Urner</p>