

# **PHIL8400**

# Rights, Responsibilities, and Al

Session 2, In person-scheduled-weekday, North Ryde 2023

Department of Philosophy

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### **General Information**

Unit convenor and teaching staff

Unit Convenor

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Tutor

Bhanuraj Kashyap

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Credit points

10

Prerequisites

COMP6400 or COMP2400

Corequisites

Co-badged status

#### Unit description

With increasing entrenchment of AI in human affairs, its moral, legal and other social aspects are becoming a significant issue. For instance, there is a significant concern that the AI-powered automated vehicles will interfere with the "right to work" of many who drive as a profession. This unit, co-designed and co-taught by relevant experts in Computing, Philosophy and Law, will cover ethical, legal and other social implications of topical issues such as algorithmic decision making, self-driving vehicles, autonomous drones in the battlefield, and robots in the healthcare sector. Students will be exposed to ideas such as balancing risks and responsibilities, both in the moral and legal sense, in the context of the evolving AI technology.

### Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

# **Learning Outcomes**

On successful completion of this unit, you will be able to:

**ULO1:** Explain the fundamental principles underlying AI, and the normative constraints that it needs to satisfy.

**ULO2:** Demonstrate an understanding of the ethical, legal, and other socioeconomic implications of AI.

**ULO3:** Demonstrate an understanding of what Responsible AI means, or will mean, in our current as well future society.

**ULO4:** Effectively communicate your findings to different stakeholders including industry professionals, lawyers and Government bodies

### **General Assessment Information**

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a mark of '0' (zero) will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11.55pm. A 1-hour grace period is provided to students who experience a technical issue. This late penalty will apply to written reports and recordings only. Late submission of time sensitive tasks (such as tests/exams, performance assessments/presentations, scheduled practical assessments/labs will be addressed by the unit convenor in a Special consideration application.

Information about this unit's policy on the use of AI will be made available in the Assessment block in iLearn. Plase check that information and contact the convenor if you have any questions.

## **Assessment Tasks**

Name	Weighting	Hurdle	Due
Essay	40%	No	05/11/2023 at 11:55pm
Participation	15%	No	Week 2 to Week 12

Name	Weighting	Hurdle	Due
Online Quizzes	15%	No	17/08/2023, 28/09/2023, and 26/10/2023 at 11:55pm
Case Study	30%	No	31/08/2023 at 11:55pm

# Essay

Assessment Type 1: Essay

Indicative Time on Task 2: 38 hours

Due: 05/11/2023 at 11:55pm

Weighting: 40%

Research essay on a topic from the unit

On successful completion you will be able to:

- Explain the fundamental principles underlying AI, and the normative constraints that it needs to satisfy.
- Demonstrate an understanding of the ethical, legal, and other socioeconomic implications of AI.
- Demonstrate an understanding of what Responsible AI means, or will mean, in our current as well future society.

## **Participation**

Assessment Type 1: Participatory task Indicative Time on Task 2: 12 hours

Due: Week 2 to Week 12

Weighting: 15%

Active engagement in class discussions and associated activities

On successful completion you will be able to:

- Explain the fundamental principles underlying AI, and the normative constraints that it needs to satisfy.
- Demonstrate an understanding of the ethical, legal, and other socioeconomic implications of AI.

 Demonstrate an understanding of what Responsible AI means, or will mean, in our current as well future society.

### Online Quizzes

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 3 hours

Due: 17/08/2023, 28/09/2023, and 26/10/2023 at 11:55pm

Weighting: 15%

Online guizzes covering key topics and concepts

On successful completion you will be able to:

- Explain the fundamental principles underlying AI, and the normative constraints that it needs to satisfy.
- Demonstrate an understanding of the ethical, legal, and other socioeconomic implications of AI.
- Demonstrate an understanding of what Responsible AI means, or will mean, in our current as well future society.

### Case Study

Assessment Type 1: Case study/analysis Indicative Time on Task 2: 30 hours

Due: 31/08/2023 at 11:55pm

Weighting: 30%

Case study involving application of theoretical concepts to practical context

On successful completion you will be able to:

- Explain the fundamental principles underlying AI, and the normative constraints that it needs to satisfy.
- Demonstrate an understanding of the ethical, legal, and other socioeconomic implications of AI.
- Demonstrate an understanding of what Responsible AI means, or will mean, in our current as well future society.
- Effectively communicate your findings to different stakeholders including industry

#### professionals, lawyers and Government bodies

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- · the Writing Centre for academic skills support.

## **Delivery and Resources**

Delivery: With the exception of one recorded lecture, all lectures are delivered live. The tutorial is held in person.

Resources: All required readings are provided in iLearn and Leganto. You must read the required readings before class.

### **Unit Schedule**

#### W1 - Introduction (Prof Paul Formosa) - 28 July 2023

- No readings
- No tutorial

#### W2 – Ethics and Robotics (A/Prof Abhaya Nayak) – 4 August 2023

- Reading 1: Birhane, A., & van Dijk, J. (2020). Robot rights? Let's talk about human welfare instead. *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society*, 207–213. https://doi.org/10.1145/3375627.3375855
- Reading 2: Vanderelst, D., & Winfield, A. (2018). An architecture for ethical robots inspired by the simulation theory of cognition. *Cognitive Architectures for Artificial Minds*, 48, 56–66. https://doi.org/10.1016/j.cogsys.2017.04.002
- Tutorial 1

#### W3 – Algorithmic Decision Making (A/Prof Abhaya Nayak) – 11 August 2023

- Reading 1: Gorwa, R., Binns, R., & Katzenbach, C. (2020). Algorithmic content moderation: Technical and political challenges in the automation of platform governance.
  Big Data & Society, 7(1), 2053951719897945. <a href="https://doi.org/10.1177/2053951719897945">https://doi.org/10.1177/205395171989794</a>
- Reading 2: Lim, H. S., & Taeihagh, A. (2019). Algorithmic decision-making in AVs:
  Understanding ethical and technical concerns for smart cities. Sustainability, 11(20). http

<sup>&</sup>lt;sup>1</sup> If you need help with your assignment, please contact:

<sup>&</sup>lt;sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

#### s://doi.org/10.3390/su11205791

- Tutorial 2
- Quiz 1

#### W4 – Al and Safety (A/Prof Abhaya Nayak) – 18 August 2023

- Reading 1: Dobbe, R., Krendl Gilbert, T., & Mintz, Y. (2021). Hard choices in artificial intelligence. *Artificial Intelligence*, 300, 103555. <a href="https://doi.org/10.1016/j.artint.2021.1035">https://doi.org/10.1016/j.artint.2021.1035</a>
  55
- Reading 2: Burton, S., Habli, I., Lawton, T., McDermid, J., Morgan, P., & Porter, Z. (2020). Mind the gaps: Assuring the safety of autonomous systems from an engineering, ethical, and legal perspective. *Artificial Intelligence*, 279, 103201. <a href="https://doi.org/10.1016/j.artint.2019.103201">https://doi.org/10.1016/j.artint.2019.103201</a>
- Tutorial 3

#### W5 - Moral Responsibility of Al Researchers (A/Prof Abhaya Nayak) - 25 August 2023

- Reading 1: Freedman, R., Borg, J. S., Sinnott-Armstrong, W., Dickerson, J. P., & Conitzer, V. (2020). Adapting a kidney exchange algorithm to align with human values.
  Artificial Intelligence, 283, 103261. https://doi.org/10.1016/j.artint.2020.103261
- Reading 2: Schaich Borg, J. (2022). The Al field needs translational Ethical Al research.
  Al Magazine, 43(3), 294–307. https://doi.org/10.1002/aaai.12062
- Tutorial 4
- Case study

#### W6 – Ethical/Social Al Frameworks (Prof Paul Formosa) – 1 September 2023

- Reading 1: Hagendorff, T. (2020). The ethics of AI ethics: An evaluation of guidelines.
  Minds and Machines, 30(1), 99–120. https://doi.org/10.1007/s11023-020-09517-8
- Reading 2: Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018). Al4People—An ethical framework for a good Al society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28(4), 689–707. <a href="https://doi.org/10.1007/s11023-018-9482-5">https://doi.org/10.1007/s11023-018-9482-5</a>
- Tutorial 5

#### W7 - The Regulation of AI (Prof Niloufer Selvadurai) - 9 September 2023

 Reading 1: Gacutan, J., & Selvadurai, N. (2020). A statutory right to explanation for decisions generated using artificial intelligence. *International Journal of Law and Information Technology*, 28(3), 193–216. https://doi.org/10.1093/ijlit/eaaa016

- Reading 2: Smuha, N. A. (2021). From a 'race to Al' to a 'race to Al regulation':
  Regulatory competition for artificial intelligence. *Law, Innovation and Technology*, *13*(1),
  57–84. https://doi.org/10.1080/17579961.2021.1898300
- Tutorial 6
- Quiz 2

#### W8 - Power, Politics, and AI (Dr Regina Fabry) - 29 September 2023

- Reading 1: Lazar, S. (2022). Power and AI: Nature and justification. In J. B. Bullock, Y.-C. Chen, J. Himmelreich, V. M. Hudson, A. Korinek, M. M. Young, & B. Zhang (Eds.), The Oxford Handbook of AI Governance (p. 0). Oxford University Press. <a href="https://doi.org/10.1093/oxfordhb/9780197579329.013.12">https://doi.org/10.1093/oxfordhb/9780197579329.013.12</a>
- Reading 2: Campolo, A., & Crawford, K. (2020). Enchanted determinism: Power without responsibility in artificial intelligence. *Engaging Science, Technology, and Society*, 6, 1–19. https://doi.org/10.17351/ests2020.277
- Tutorial 7

#### W9 – What Is Al After All? The Turing Test Revisited (Dr Regina Fabry) – 6 October 2023

- Reading 1: Proudfoot, D. (2013). Rethinking Turing's Test. The Journal of Philosophy,
  110(7), 391–411. https://doi.org/10.5840/jphil2013110722
- Reading 2: Wheeler, M. (2020). Deceptive Appearances: The Turing Test, Response-Dependence, and Intelligence as an Emotional Concept. *Minds and Machines*, 30(4), 513–532. https://doi.org/10.1007/s11023-020-09533-8
- Tutorial 8

#### W10 – Explainable AI (Dr Regina Fabry) – 13 October 2023

- Reading 1: Zednik, C. (2021). Solving the black box problem: A normative framework for explainable artificial intelligence. *Philosophy & Technology*, 34(2), 265–288. <a href="https://doi.org/10.1007/s13347-019-00382-7">https://doi.org/10.1007/s13347-019-00382-7</a>
- Reading 2: Russo, F., Schliesser, E., & Wagemans, J. (2023). Connecting ethics and epistemology of Al. Al & SOCIETY. https://doi.org/10.1007/s00146-022-01617-6
- Tutorial 9

#### W11 – Equitable AI (Dr Regina Fabry) – 20 October 2023

- Reading 1: Cossette-Lefebvre, H., & Maclure, J. (2022). Al's fairness problem:
  Understanding wrongful discrimination in the context of automated decision-making. Al and Ethics. https://doi.org/10.1007/s43681-022-00233-w
- Reading 2: Kasirzadeh, A. (2022). Algorithmic fairness and structural injustice: Insights

from feminist political philosophy. *Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society*, 349–356. https://doi.org/10.1145/3514094.3534188

- Tutorial 10
- Quiz 3

#### W12 - Sustainable AI (Dr Regina Fabry) - 27 October 2023

- Reading 1: van Wynsberghe, A. (2021). Sustainable AI: AI for sustainability and the sustainability of AI. AI and Ethics, 1(3), 213–218. <a href="https://doi.org/10.1007/s43681-021-00">https://doi.org/10.1007/s43681-021-00</a>
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- Reading 2: Cowls, J., Tsamados, A., Taddeo, M., & Floridi, L. (2023). The Al gambit: Leveraging artificial intelligence to combat climate change—Opportunities, challenges, and recommendations. Al & SOCIETY, 38(1), 283–307. <a href="https://doi.org/10.1007/s00146-0">https://doi.org/10.1007/s00146-0</a> 21-01294-x
- Tutorial 11

#### W13 - Writing and Review

- No Readings
- No Lecture
- No Tutorial
- Essay

### **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- · Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

Students seeking more policy resources can visit <u>Student Policies</u> (<u>https://students.mq.edu.au/support/study/policies</u>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.e

du.au) and use the search tool.

#### **Student Code of Conduct**

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

### Results

Results published on platform other than <u>eStudent</u>, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in <u>eStudent</u>. For more information visit <u>ask.mq.edu.au</u> or if you are a Global MBA student contact <u>globalmba.support@mq.edu.au</u>

### **Academic Integrity**

At Macquarie, we believe <u>academic integrity</u> – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free <u>online writing and maths support</u>, academic skills development and wellbeing consultations.

### Student Support

Macquarie University provides a range of support services for students. For details, visit <a href="http://students.mq.edu.au/support/">http://students.mq.edu.au/support/</a>

### **The Writing Centre**

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- · Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

# Student Services and Support

Macquarie University offers a range of Student Support Services including:

IT Support

- Accessibility and disability support with study
- Mental health support
- <u>Safety support</u> to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues
- Student Advocacy provides independent advice on MQ policies, procedures, and processes

### Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

### IT Help

For help with University computer systems and technology, visit <a href="http://www.mq.edu.au/about\_us/">http://www.mq.edu.au/about\_us/</a> offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.