



PHIX2020

Philosophy, Technology, and the Future of Humanity

Session 1, Online-flexible 2025

School of Humanities

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General Information

Unit convenor and teaching staff
Unit Convener, Lecturer and Tutor
Professor Paul Formosa
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Lecturer and Tutor
Professor Mark Alfano
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Credit points
10

Prerequisites
40cp at 1000 level or above

Corequisites

Co-badged status

Unit description

We live an increasing part of our lives online, playing videogames, and engaging with various technologies and virtual realities. Our workplaces are more automated, cars drive themselves, and robots take care of us. Is this a good thing? What is it doing to us? Where will it take us in the future? In this unit we draw on philosophical and ethical theories to explore the impacts of information and related technologies on humanity. Topics we will explore include issues around human-technology relations, such as: technological neutrality and technological determinism; embodiment, gender, and technology; and the co-evolution of mind and technology. We will examine ethical aspects of technology, such as: the impacts that online sharing has on our philosophical understandings of friendship; the right to internet privacy; how theories in moral psychology explain the ethical impacts of playing videogames; the ethics of self-driving cars and robotic care-workers; and the justice implications of the automatisisation of work. Finally, we also look at topics surrounding the intertwining of humanity and technology and the future impacts of Artificial Intelligence (AI), such as: whether AI and the singularity is an existential risk to humanity; how technology will be used as a tool of human enhancement; and whether we will (and should) become cyborgs and stop being human.

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 major theories about the philosophical and ethical issues raised by new forms of technology.

ULO2: analyse arguments in the relevant literatures.

ULO3: evaluate relevant theories and arguments critically.

ULO4: communicate clearly your own perspective on the views and arguments presented in the unit.

General Assessment Information

Late Submission policy:

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.

GenAI/ChatGPT policy in Philosophy:

In this Unit, and unless notified otherwise *in writing* by the Unit Convenor, substantive assessment content that has been generated by AI will be regarded as not the student's own work and potentially in breach of Academic Integrity standards. This applies to all assessments, including online forums. In submitting assessments all students will be required to confirm their agreement with the following:

In submitting this assessment, I certify that this submission is my own work and demonstrates my own understanding, analysis, research, reflection, critical thinking, and writing. I am not submitting anything that I cannot myself fully explain and defend, if called upon to do so. I understand that if my teachers have concerns about whether this submission is my own work or an AI-generated output, I may be required to attend an interview with the Unit Convenor/Integrity Officer/academic staff to verify my research methods, my understanding of the content, and my close familiarity with all sources I have cited. If I am found to have submitted work that is not my own, my work will be further investigated, and I may be found to be in breach of the MQ Academic Integrity Policy.

Assessment Tasks

| Name | Weighting | Hurdle | Due |
|--------------------------------------|-----------|--------|------------|
| Media presentation | 35% | No | 28/04/2025 |
| Reflective Portfolio | 25% | No | 30/05/2025 |
| Research essay | 40% | No | 04/06/2025 |

Media presentation

Assessment Type ¹: Media presentation

Indicative Time on Task ²: 25 hours

Due: **28/04/2025**

Weighting: **35%**

Media presentation on a topic from the unit

On successful completion you will be able to:

- explain the major theories about the philosophical and ethical issues raised by new forms of technology.
- analyse arguments in the relevant literatures.
- evaluate relevant theories and arguments critically.
- communicate clearly your own perspective on the views and arguments presented in the unit.

Reflective Portfolio

Assessment Type ¹: Portfolio

Indicative Time on Task ²: 15 hours

Due: **30/05/2025**

Weighting: **25%**

A set of reflections on learning in the unit

On successful completion you will be able to:

- explain the major theories about the philosophical and ethical issues raised by new

forms of technology.

- analyse arguments in the relevant literatures.
- evaluate relevant theories and arguments critically.
- communicate clearly your own perspective on the views and arguments presented in the unit.

Research essay

Assessment Type ¹: Essay

Indicative Time on Task ²: 35 hours

Due: **04/06/2025**

Weighting: **40%**

Research essay exploring one relevant topic in depth

On successful completion you will be able to:

- explain the major theories about the philosophical and ethical issues raised by new forms of technology.
- analyse arguments in the relevant literatures.
- evaluate relevant theories and arguments critically.
- communicate clearly your own perspective on the views and arguments presented in the unit.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Resources:

- Required readings can be downloaded from Leganto.
- You must read the required readings BEFORE class.

Unit Schedule

PHIL2020 SCHEUDLE FOR 2025

W1 – Introduction: Philosophy and Technology (Formosa) - February 26

- No reading
- No tutorial

W2 – What is technology? Optimist and pessimist views of technology (Alfano) – March 5

- Reading 1: Mary Tiles and Hans Oberdiek, “Conflicting Visions of Technology,” in *Living in a Technological Culture* (London: Routledge, 1995), pp. 12–31.
- Reading 2: Andrew Feenberg, “What is the Philosophy of Technology?,” in *Defining Technological Literacy. Towards An Epistemological Framework*, J. Dakers (ed.), (Palgrave MacMillan, 2006), 5-16.
- Tutorial 1 (Alfano)

W3 - Co-evolution of mind and technology (Alfano) – March 12

- Reading 1: Sterelny K. (2011) "From hominins to humans: how sapiens became behaviourally modern". *Phil. Trans. R. Soc. B.* 366: 809-822. <http://doi.org/10.1098/rstb.2010.0301>
- Reading 2: Clark, A. (2002). “Towards a science of the bio-technological mind”, *International Journal of Cognition and Technology*, Vol. 1, No. 1, p . 21-33.
- Tutorial 2 (Alfano)

W4 - Cognition and technology (Alfano) – March 19

- Reading 1: Hollan, J., Hutchins, E. & Kirsh, D. (2000). *Distributed Cognition: Toward a new foundation for Human-Computer Interaction Research*. *ACM Transactions on Computer-Human Interaction*, 7 (2), 174–196
- Reading 2: Andrew Feenberg, “From Essentialism to Constructivism: Philosophy of Technology at the Crossroads,” from *Technology and the Good Life?*, ed. Eric Higgs, Andrew Light, and David Strong (Chicago: University of Chicago Press, 2000), pp. 294–315.
- Tutorial 3 (Alfano)

W5 –Artificial Intelligence and Philosophy (Alfano) – March 26

- Reading 1: Kudina, Olga, Ballsun-Stanton, Brian, and Alfano, Mark. “The use of large language models as scaffolds for proleptic reasoning. *Asian Journal of Philosophy*. (2025)

- Reading 2: Robbins, Scott. "AI and the path to envelopment: knowledge as a first step towards the responsible regulation and use of AI-powered machines." *AI & Society*. (2019)
- Tutorial 4 (Alfano)

W6 – The Singularity and Mind-uploading: Will humanity survive? (Formosa) – April 2

- Reading 1: Chalmers, David J. "The Singularity." *Journal of Consciousness Studies* 17, no. 9 (2010): 7–65.
- Tutorial 5 (Formosa)

W7 – Artificial moral agents: Can robots be persons? (Formosa) – April 9

- Reading 1: Wynsberghe, Aimee van, and Scott Robbins. "Critiquing the Reasons for Making Artificial Moral Agents." *Science and Engineering Ethics*, 2018, 1–17. <https://doi.org/10.1007/s11948-018-0030-8>.
- Reading 2: Formosa, Paul, and Malcolm Ryan. 'Making Moral Machines: Why We Need Artificial Moral Agents'. *AI & SOCIETY*, 3 November 2020. <https://doi.org/10.1007/s00146-020-01089-6>.
- Tutorial 6 (Formosa)

MID-SEM BREAK

W8 – Autonomous Vehicles and Carebots: How to live with machines (Formosa) – April 30

- Reading 1: Gogoll, Jan, and Julian F. Müller. "Autonomous Cars: In Favor of a Mandatory Ethics Setting." *Science and Engineering Ethics* 23, no. 3 (June 2017): 681–700.
- Reading 2: Vallor, Shannon. "Moral Deskillling and Upskilling in a New Machine Age: Reflections on the Ambiguous Future of Character." *Philosophy & Technology* 28, no. 1 (March 2015): 107–24. <https://doi.org/10.1007/s13347-014-0156-9>.
- **NO TUTORIAL THIS WEEK**
- **Media Presentation due: 23:59 on Monday 28TH of April, 2025**

W9 – Videogames and morality: Do virtual actions matter? (Formosa) – May 7

- Reading 1: Montefiore, T., & Formosa, P. (2022). Resisting the Gamer's Dilemma. *Ethics and Information Technology*, 24(3), 31. <https://doi.org/10.1007/s10676-022-09655-w>
- Reading 2: Ryan, M., Staines, D., & Formosa, P. (2017). Focus, Sensitivity, Judgement, Action: Four Lenses for Designing Morally Engaging Games. *Transactions of the Digital Games Research Association*, 3(2), 143–173.
- Tutorial 7 (Formosa)

W10 – Privacy and Surveillance Capitalism (Formosa) – May 14

- Reading 1: Reiman, Jeffrey H. “Driving to the Panopticon: A Philosophical Exploration of the Risks to Privacy Posed by the Highway Technology of the Future.” Santa Clara High Technology Law Journal 11 (1995).
- Reading 2: Zuboff, Shoshana. “Big Other: Surveillance Capitalism and the Prospects of an Information Civilization.” Journal of Information Technology 30, no. 1 (March 1, 2015): 75–89. <https://doi.org/10.1057/jit.2015.5>.
- Tutorial 8 (Formosa)

W11 – Democracy and Large Language Models (LLMs) (Formosa) – May 21

- Reading 1: Coeckelbergh, M. (2025). LLMs, Truth, and Democracy: An Overview of Risks. Science and Engineering Ethics, 31(1), 4. <https://doi.org/10.1007/s11948-025-00529-0>
- Reading 2: Formosa, P., Kashyap, B., & Sahebi, S. (2024). Generative AI and the Future of Democratic Citizenship. Digit. Gov.: Res. Pract. <https://doi.org/10.1145/3674844>
- Tutorial 9 (Formosa)

W12 – AI, Automation and Work (PF) – May 28

- Reading 1: Tubaro, Paola, Antonio A Casilli, and Marion Coville. ‘The Trainer, the Verifier, the Imitator: Three Ways in Which Human Platform Workers Support Artificial Intelligence’. Big Data & Society 7, no. 1 (January 2020): 205395172091977.
- Reading 2: Bankins, S., & Formosa, P. (2023). The Ethical Implications of Artificial Intelligence (AI) For Meaningful Work. Journal of Business Ethics. <https://doi.org/10.1007/s10551-023-05339-7>
- Tutorial 10 (Formosa)
- **Portfolio due: 23:59 on Friday May 30th, 2025**

W13 – No New Content – June 4

- Essay writing week.
- No lecture
- No tutorial
- **Research Essay due: 23:59 on Wednesday June 4, 2025**

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](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 [Student Policies](https://students.mq.edu.au/support/study/policies) (<https://students.mq.edu.au/support/study/policies>). 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.edu.au) (<https://policies.mq.edu.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 [eStudent](#), (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 [eStudent](#). For more information visit connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – 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 [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

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

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](#)
- [Safety support](#) 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 the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Unit information based on version 2025.03 of the [Handbook](#)