

INFO 2010 AI AND SOCIETY

Credit Points 10

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Description AI is no longer only a topic of science fiction fantasy. It now answers questions, writes essays and code, manages customer service inquiries, and generates images, music and film. Its arrival poses new and critical questions about how technology impacts society. What does the effortless production of media mean for the future of education, work, culture, and governance? Does AI hold promise for key global challenges, from climate change to geopolitical instability? Or will it lead to rising inequality, alienation and corporate control? Trained on accumulations of media on the Internet, what are its effects on forms of social difference – gender, class, race, indigeneity, sexuality, disability? Students will develop critical literacy skills through introductions to the history, technical foundations, and current debates surrounding AI. The subject will involve a practice-based generative AI project, exploring issues of bias, plagiarism, copyright, ethics, misinformation and decision-making.

School Humanities & Comm Arts

Discipline Information Technology, Not Elsewhere Classified.

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Restrictions

Successful completion of 40 credit points.

Learning Outcomes

After successful completion of this subject, students will be able to:

1. Discuss key moments in the historical development of artificial intelligence.
2. Explain the basic technical operations of artificial intelligence (model design, training and inference).
3. Critically analyse key debates around AI technologies (gender, racial and other bias; impacts on labour and the future of work; spread of mis/disinformation).
4. Use AI to produce creative work that highlights aspects of AI's cultural and social impact.
5. Communicate effectively in a range of forms including individual / group-based outputs and written and creative work.
6. Critically evaluate applications of AI technology to a range of workplace contexts.

Subject Content

- Weeks 1-2: Introducing Algorithmic Culture: How to generate a story / artwork / film / song. Apply, reflect and evaluate the use of prompt variations and their effects in producing a piece of work using public AI services
- Weeks 3-4: History of the Future: From the Abacus to the Neural Net.
- Brief introduction to the history and technical foundations of Artificial Intelligence
- Weeks 5-6: Anatomy of AI: How does a Machine Learn? Unpacking a "Neural Network".

- Simplified cases and examples to illustrate word prediction, boundary detection (images), linear regression (function), matrix manipulation and "garbage in/garbage out" (GIGO)
- Weeks 7–9: AI Choreography: Designing a "Critical AI" intervention.
- Explore and debate key concerns and critical perspectives on AI, combining the "lens" of technology and computing, sociology, philosophy, and evolving Australian regulation and policy. Storyboard one or more of these lenses for the AI
- Weeks 10-12: AI Showcase: Utopia / Dystopia? Practice-based group generative AI project – collaborate in a team to design a project that both uses and reflects critically on AI.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

| Type | Length | Percent | Threshold | Individual/ Group Task | Mandatory |
|-----------------|--|---------|-----------|------------------------|-----------|
| Short Answer | Stage 1: 500 words Due Week 4; Stage 2: 500 words Due Week 6/7 | 40 | N | Individual | N |
| Applied Project | Project developer Storyboard; Presentation of Group Project 10 minutes Due Week 12/13 | 30 | N | Group | N |
| Case Study | 1,000 words Due Week 15 | 30 | N | Individual | N |