

Robot Ethics: Assigned Readings

Note: in addition to the readings below, most class days also assigned pre-recorded mini lectures, and/or “expert perspective” videos.

1 Introduction to Robot Ethics

- Bekey, G. (2011). Current trends in robotics: Technology and ethics. In P. Lin, K. Abney, & G.A. Bekey (Eds.), *Robot ethics: The ethical and social implications of robotics* (17-34). Cambridge: MIT Press.
- Vallor, Shannon, and George A. Bekey. “Artificial Intelligence and the Ethics of Self-learning Robots.” In Lin, Patrick, Keith Abney, and Ryan Jenkins, eds. *Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence*. Oxford University Press, 2017.

2 Frameworks for Ethical Judgment

- Abney, K. (2011). Robotics, ethical theory, and metaethics: A guide for the perplexed. In P. Lin, K. Abney, G.A. Bekey (Eds.), *Robot ethics: The ethical and social implications of robotics* (35-52). Cambridge: MIT Press.

3 Cost-Benefit Analysis

- Hansson, S.O. (2007) Philosophical problems in cost-benefit analysis. *Economics and Philosophy*, 23(02), 162-183.

4 Autonomous Weapons

- Human Rights Watch. (2018) “Heed the Call: A Moral and Legal Imperative to Ban Killer Robots”.
- Howard, D. (unpublished manuscript) “In Defense of Autonomous Weapons”

5 Self-Driving Cars

- Millar, Jason. “Ethics Settings for Autonomous Vehicles.” In Lin, Patrick, Keith Abney, and Ryan Jenkins, eds. *Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence*.

Oxford University Press, 2017.

- Melissa Bauman. "Why Waiting for Perfect Autonomous Vehicles May Cost Lives." Rand Corporation.

6 Asimov's Three Laws

- Film: I, Robot (2004). Director: Alex Proyas

7 Ethics Programming for Robots

- Taylor, P. "The Concept of 'Cat Face'". London Review of Books. 38.16 (2016): 30-32.
- Klincewicz, Michal. Challenges to Engineering Moral Reasoners. In Lin, Patrick, Keith Abney, and Ryan Jenkins, eds. Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence. Oxford University Press, 2017.
- Kuang, Cliff. (2017) "Can AI be Taught to Explain Itself?" The New York Times Magazine, <https://www.nytimes.com/2017/11/21/magazine/can-ai-be-taught-to-explain-itself.html>

8 Healthcare Robots

- Vallor, S. (2011). Carebots and caregivers: Sustaining the ethical ideal of care in the twenty-first century. Philosophy Technology, 24(3), 251-268.
- Borenstein, J., et al. (2017). Pediatric Robotics and Ethics: The Robot Is Ready to See You Now, but Should It Be Trusted?. Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence. : Oxford University Press

9 Prosthetics and Human Enhancement

- Vallor, S. (2011). Knowing what to wish for. Philosophy Technology, 24(3), 230-249.
- Film: Fixed: The Science/Fiction of Human Enhancement. Director: Regan Brashear

10 Robots as Romantic Partners

- Blay, W. (2011). Do you want a robot lover? The ethics of caring technologies. In P. Lin, K. Abney, G.A. Bekey (Eds.), Robot ethics: The ethical and social implications of robotics (233-248). Cambridge: MIT Press.
- Elder, Alexis. "Robot Friends for Autistic Children." In Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence. Oxford University Press.
- Film: Ex Machina (2014). Director: Alex Garland

11 Privacy

- Calo, R. (2011). Robots and privacy. In P. Lin, K. Abney, G.A. Bekey (Eds.), *Robot ethics: The ethical and social implications of robotics (187-201)*. Cambridge: MIT Press.
- “Artificial Intelligence, Robotics, Privacy and Data Protection.” Room document for the 38th International Conference of Data Protection and Privacy Commissioners. October 2016.

12 Technological Unemployment

- Frey, C. B., and Osborne, M. A. (2013). The future of employment: how susceptible are jobs to computerisation?. *Technological Forecasting and Social Change*, 114, 254-280.
- Howard, D. (2017). CNN <https://edition.cnn.com/2017/04/15/opinions/the-robot-scabs-are-coming-to-take-your-jobs-howard-opinion/>

13 Robot Rights

- Coeckelbergh, M. (2010). Robot rights? Towards a social-relational justification of moral consideration. *Ethics and Information Technology*, 12(3), 209-221.
- Heller, N. (2016). “If Animals Have Rights, Should Robots?”. *The New Yorker*, <https://www.newyorker.com/magazine/2016/11/28/if-animals-have-rights-should-robots>
- TV episode: *Star Trek, The Next Generation*: “The Measure of a Man”

14 Will there be an AI Singularity?

- Chapter 1: “The Six Epochs” in Kurzweil, R. (2005). *The singularity is near: When humans transcend biology*. New York: Viking.
- Allen, P. (2011). “The Singularity Isn’t Near”. *MIT Technology Review*, <https://www.technologyreview.com/s/425733/paul-allen-the-singularity-isnt-near/>
- (Blog Post) “Kurzweil responds: Don’t underestimate the Singularity”. <https://learn-nexus.nd.edu/courses/course-v1:SU19PHIL+24632+CX01/courseware/859f7186906347199ad0f54c787a3316/3a5076fb6f79405995080c9c10a2cd35>

15 Technological Virtue and Robot Ethics

- Chapter 6: “Technomoral Wisdom for an Uncertain Future” (p. 118-154) in Vallor, S. (2016). *Technology and the virtues: A philosophical guide to a future worth wanting*.
- Chapter 9: *Robots at War and at Home* (p. 209-229) in Vallor, S. (2016). *Technology and the virtues: A philosophical guide to a future worth wanting*.

16 Religious Perspectives on Robot Ethics

- Herzfeld, N. L. (2002) *In our image: Artificial intelligence and the human spirit*. Fortress Press. Chapters 5-6 (68-95)
- Chapter 3: “The Practice of Moral Self-Cultivation in Classical Virtue Traditions” in Vallor, S. (2016). *Technology and the virtues: A philosophical guide to a future worth wanting*.