

Ethics and Social Impacts of Today's Artificial Intelligence (AI) Systems

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Lecture Themes

How have humans envisioned “artificial intelligence” throughout history?

What does the term artificial intelligence mean (AI) today?

How are AI technologies shaping our social, economic, cultural, and political lives?

What can we as citizens do about these shifts?

Definitions

Computer: Today, a digital device that can perform calculation, store, and retrieve information in coded form, and execute sequences of operations.

Artificial Intelligence (AI): A broad term for when a machine mimics human traits like learning and problem solving.

Machine Learning (ML): The study and construction of algorithms that can learn from and make predictions on data and solve problems.

Big Data: Data sets so large that traditional data-processing application software are inadequate – often the material on which machine learning is performed.

Deep Learning: Non-linear methods of machine learning modeled on the nervous system.

Further Reading

Kalluri, Pratyusha. “Don't Ask if AI Is Good or Fair, Ask How It Shifts Power.” *Nature* 583 (2020): 169. <https://www.nature.com/articles/d41586-020-02003-2>

Stark, Luke and Zenon W. Pylyshyn. “Artificial Intelligence in Canada.” *The Canadian Encyclopedia*, 13 November 2018. <https://www.thecanadianencyclopedia.ca/en/article/artificial-intelligence>

Stark, Luke. “For Canadian youth, facial recognition technologies are a canary in the coal mine.” *National Post*, 19 November 2021. <https://nationalpost.com/opinion/luke-stark-for-canadian-youth-facial-recognition-technologies-are-a-canary-in-the-coal-mine>

Thomas, Rachel. “Medicine’s Machine Learning Problem.” *Boston Review*, October 19, 2020. <https://bostonreview.net/articles/rachel-thomas-medicines-machine-learning-problem/>