

Eco 736: Public Economics
Professor AI Link
Fall 2023

Purpose

The purpose of this course is to familiarize PhD students in economics with current trends in burgeoning technologies that are having, or are expected to have, an economic impact on society. The technology that we will study is artificial intelligence (AI).

Structure of the Course

This is a writing- and research-intensive course. Students will be expected to do the following independent work:

- assemble academic and popular press articles on a number of U.S. applications of AI,
- summarize the economic impacts of each application,
- discuss within a graphic and mathematic economic framework the appropriable and spillover benefits to society expected from the use of AI, and
- prepare a detailed summary of each application, along with a literature review, that can be incorporated into a manuscript for possible publication.

The class meetings will be structured as progress workshops.

Prerequisites

PhD microeconomic course and permission of the instructor

Possible Outline for Each Application Summary

- A. History of the application
- B. U.S. industries affected by the AI application
- C. Economic consequences from the use of AI in the application area
 - a. Impact on marginal cost
 - b. Impact on firm demand and industry demand
 - c. Social concerns
- D. Public policies related to the AI application area

Readings

“What is AI,” 2023, McKinsey and Company

“The Economic of AI,” 2018, McKinsey and Company

“AI Applications: Top 18 Artificial Intelligence Applications in 2023,” 2023, Simplilearn report

“What is generative AI?” 2023, McKinsey and Company

“The Effects of AI on the Working Lives of Women,” 2022, UNESCO and OECD report

Imagining AI: How the World Sees Intelligent Machines by Stephen Cave and Kanta Dihal, 2023, Oxford University Press

Grading

A student’s grade will be based on the economic content of the summaries.