

Wilfried Guth Chair of Constitutional Political Economy and Competition Policy
Prof. Dr. Tim Krieger
Valentin Klotzbücher, MPhil

The Economics of Artificial Intelligence

Summer term 2020

With the advancing effectiveness of machine learning methods and artificial intelligence (AI), we see a rapidly growing interest in understanding the technologies' potentially disruptive effects. In this seminar, we will look at AI from the perspective of economics and discuss current and likely future implications of increasingly capable AI on different sectors.

Seminar details and dates

- Target Group: M.Sc. Volkswirtschaftslehre, M.Sc. Economics
- Credits: 4 or 6 ECTS
- Deadline for application: April 13
- First meeting: April 27, 14:00–16:00 c.t. in HS 1134
→ later withdrawal will result in a grade of 5.0
- Individual meetings to discuss seminar papers: End of May
- Submission of final paper and presentation slides: July 7
- Block seminar: July 9 and 10, approx. 8:00–18:00

Topics

1. *The role of prediction and causality in economics*
Athey (2017, 2019); Kleinberg et al. (2015); Mullainathan and Spiess (2017)
2. *AI, labor markets, and occupational change*
Acemoglu and Restrepo (2018); Agrawal et al. (2019); Frank et al. (2019);
Graetz and Michaels (2018); Salomons and Author (2018)
3. *Distributional effects: AI and inequality*
Berg et al. (2018); Fuster et al. (2018); Korinek and Stiglitz (2019)
4. *Data and decision making in business*
Agrawal et al. (2018); Brynjolfsson and McElheran (2016); Farboodi et al. (2019)

5. *Financial markets and algorithmic trading*
Chaboud et al. (2014); Hendershott et al. (2011); Ryll and Seidens (2019)
6. *Criminal justice and algorithmic discrimination*
Cowgill (2018); Cowgill and Tucker (2019); Kleinberg et al. (2018)
7. *The impact of AI on productivity and innovation*
Brynjolfsson et al. (2018); Cockburn et al. (2019)
8. *AI in medicine and healthcare*
He et al. (2019); Jamieson and Goldfarb (2019); Obermeyer and Emanuel (2016)
9. *Implications of AI for international trade and globalization*
Baldwin (2019); Brynjolfsson et al. (2019)
10. *AI, algorithmic pricing, and collusion*
Calvano et al. (2018); Ezrachi and Stucke (2017);
Miklós-Thal and Tucker (2019); Schwalbe (2018)
11. *AI, data security, and consumer privacy*
Acquisti et al. (2016); Jin (2018)

Seminar rules

- *Structure*: In the first meeting, an introduction to the economics of AI is given and individual topics will be allocated. In May, individual meetings will take place to discuss the structure and reasoning of seminar papers (appointments via ILIAS). In the block seminar, you present your work.
- *Credits*: 4 ECTS: Seminar participants have to write a seminar paper (3,500-4,000 words plus tables, graphs, and references) and to do a short presentation (20 minutes). 6 ECTS: Seminar participants have to write a seminar paper (3,500-4,000 words plus tables, graphs, and references), to do a short presentation (20 minutes) and to discuss a seminar paper by another participant in class (5 minutes).
- *Literature review*: The given literature is the starting point for your seminar paper and presentation. Further literature research is required. There are a couple of useful tools that you may want to use when searching for literature, such as [Google Scholar](#), [Econis.eu](#), or [Scopus.com](#). When using Google make sure to choose only sources that are scientifically reliable and try to avoid politically biased statements.
- *Plagiarism*: PLAGIARISM WILL BE DEALT WITH AND PUNISHED TO THE FULL EXTENT OF THE UNIVERSITY'S GUIDELINES. If you don't know what the term "plagiarism" commonly refers to, talk to us before you start working on your paper.

References

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