

### PREDICTION AND ESTIMATION

1. Susan Athey has a nice general essay intended for the general public in Science on how prediction can be used in decision making, covers several examples.

Athey, Susan, 2017. "Beyond prediction: Using big data for policy problems", Science.

[https://scholar.harvard.edu/files/people\\_analytics/files/beyond\\_prediction.pdf](https://scholar.harvard.edu/files/people_analytics/files/beyond_prediction.pdf)

2. Hal Varian and Athey & Imbens papers are then more written as introductions to machine learning for economists. These may serve as good starting points if you are interested in understanding the tools that are available and how they work.

Varian, Hal. 2014. "Big Data: New Tricks for Econometrics", Journal of Economic Perspectives.

<https://www.aeaweb.org/articles?id=10.1257/jep.28.2.3>

Athey, Susan, and Guido Imbens, 2019. "Machine Learning Methods That Economists Should Know About", Annual Review of Economics.

<https://www.annualreviews.org/doi/abs/10.1146/annurev-economics-080217-053433>

3. Finally, John Angrist has a big production course on econometrics and the basic tools that economists use. His Nobel price lecture is a concise package of the tools used by empirical economists

<https://mru.org/courses/mastering-econometrics/path-cause-effect>

<https://mru.org/courses/mastering-econometrics/joshua-angrist-nobel-prize-lecture-2021>

### AUCTIONS

1. The Wired story from 2009 gives a bit of a history to ad auctions.

Wired, 2009. "Secret of Googlenomics: Data-Fueled Recipe Brews Profitability".

<https://www.wired.com/2009/05/nep-googlenomics/>

2. Paul Milgrom's primer gives a much fuller treatment on Winner's curse, among other things.

Milgrom, Paul. 1989. "Auctions and Bidding: A Primer." Journal of Economic Perspectives.

<https://www.aeaweb.org/articles?id=10.1257/jep.3.3.3>

3. Varian & Harris paper is a short summary of GSP vs VCG.

Hal Varian and Christopher Harris, 2014. "The VCG Auction in Theory and Practice", American Economic Review: Papers & Proceedings.

<https://www.aeaweb.org/articles?id=10.1257/aer.104.5.442>

4. Paul Klemperer discusses the common pitfalls that have been encountered in real world auction design, such as spectrum auctions.

Klemperer, Paul. 2002. "What Really Matters in Auction Design." Journal of Economic Perspectives.

<https://www.aeaweb.org/articles?id=10.1257/0895330027166>

## PLATFORMS

1. Alvin Roth's article summarizes a lot of the discussion on market design and gives a structure that may be helpful if you ever find the need to design new marketplaces. I put this under the platforms, because the issues he speaks of seem definitely relevant in the design of platforms as well.

Roth, Alvin E. 2018. "Marketplaces, Markets, and Market Design." American Economic Review.

<https://www.aeaweb.org/articles?id=10.1257/aer.108.7.1609>

2. The following article summarizes the basic economics of advertisements in the online world.

Evans, David S. 2009. "The Online Advertising Industry: Economics, Evolution, and Privacy." Journal of Economic Perspectives.

<https://www.aeaweb.org/articles?id=10.1257/jep.23.3.37>

3. The economics of peer-to-peer markets or the sharing economy are described in more detail in the article below.

Einav, Liran, Chiara Farronato, and Jonathan Levin. 2016. "Peer-to-Peer Markets." Annual review of Economics.

<https://www.annualreviews.org/doi/abs/10.1146/annurev-economics-080315-015334>

4. If you decide to continue with the economics of platforms, then the following would constitute as essential readings. Do note that these papers differ from most of the other material given here: they are technically challenging as here the theory of platforms is developed.

Rochet, Jean-Charles and Jean Tirole. 2003. "Platform Competition in Two-Sided Markets", Journal of the European Economic Association.

<https://www.annualreviews.org/doi/abs/10.1146/annurev-economics-080315-015334>

Armstrong, Mark. 2006. "Competition in Two-Sided Markets", RAND Journal of Economics.

<https://www.jstor.org/stable/25046266>

Rochet, Jean-Charles and Jean Tirole. 2006. "Two-Sided Markets: A Progress Report." The RAND Journal of Economics.

<https://www.jstor.org/stable/25046265>

Weyl, E Glen. 2010. "A Price Theory of Multi-sided Platforms." American Economic Review.

<https://www.aeaweb.org/articles?id=10.1257/aer.100.4.1642>

## REGULATION

1. Regulation of the digital platforms has understandably raised a lot of recent discussion. A good source for policy relevant discussion of antitrust issues is the Stigler Center Antitrust and Competition Conferences, in particular the 2019 edition on digital platforms.

Zingales, Luigi and Filippo Maria Lancieri. 2019. "Stigler Committee on Digital Platforms", Policy Brief.

<https://research.chicagobooth.edu/-/media/research/stigler/pdfs/policy-brief---digital-platforms---stigler-center.pdf>

and the related report

Scott Morton et al. 2019. "Committee for the Study of Digital Platforms – Market Structure and Antitrust Subcommittee – Report".

<https://som.yale.edu/sites/default/files/CompetitionDigitalPlatformsStigler19.pdf>

2. A good summary of the European discussion on platform regulation in early 2020's is from Toulouse's Common Good Summit, "Regulation of Platforms"

<https://www.youtube.com/watch?v=KtjraSMH5QY>

3. Privacy issues are of interest to many, understandably. The following is a comprehensive overview of how the economics of privacy were understood a few years ago.

Acquisti, Alessandro, Curtis Taylor and Liad Wagman. 2016. "The Economics of Privacy", Journal of Economic Literature.

<https://www.aeaweb.org/articles?id=10.1257/jel.54.2.442>

## GENERAL

1. A comprehensive, relatively recent, and pleasantly written literature review contains an excellent overview of the field from the point of view of economics. Highly recommended source if you continue with the economics of digital markets.

Goldfarb, Avi and Catherine Tucker. 2019. "Digital Economics", Journal of Economic Literature.

<https://www.aeaweb.org/articles?id=10.1257/jel.20171452>