Guy Aridor

September 2021

Email: ga2449@columbia.edu
Homepage: https://www.guyaridor.net/
GitHub: https://github.com/rawls238

Education

Ph.D. Economics, Columbia University, 2016-2022 (expected).

Fields: Industrial Organization, Economics of Digitization, Behavioral/Experimental Economics

B.A. Economics, Computer Science, Mathematics, Boston University, 2014

College Prize for Excellence in Economics

Honors in Economics, *summa cum laude*

Working Papers

1. Demand for Digital Attention: Evidence from a Social Media Experiment

   Short Abstract: I conduct a field experiment where I comprehensively monitor how participants spend their time on digital services and restrict access to Instagram or YouTube for one to two weeks. I characterize how participants substitute their time allocations during and after the restrictions and relate my findings to market definition and merger evaluation in zero-priced online attention markets.

2. The Effect of Privacy Regulation on the Data Industry: Empirical Evidence from GDPR, Draft
   (w/ Yeon-Koo Che, Tobias Salz)

   Revision Requested, RAND Journal of Economics

   Abstract at ACM EC'21

   Short Abstract: We use novel data from the online travel industry to characterize the causal impact of GDPR on the data that firms can collect as well as their advertising revenues and ability to predict consumer behavior.

3. Competing Bandits: The Perils of Exploration under Competition, Draft
   (w/ Yishay Mansour, Alex Slivkins, Steven Wu)

   An earlier version *The Perils of Exploration under Competition: A Computational Modeling Approach* (w/ Kevin Liu, Alex Slivkins, Steven Wu) was at ACM EC '19

   Short Abstract: We study the tension between exploration and competition and ask whether competition incentivizes the adoption of better exploration algorithms.

4. Recommenders' Originals: Integrated Recommender Systems and Vertical Foreclosure, Draft
   (w/ Duarte Gonçalves)

   Revised and resubmitted to International Journal of Industrial Organization

   Short Abstract: We characterize the equilibrium effects of the increased tendency for online platforms to both produce their own content and utilize recommender systems.

5. Adaptive Efficient Coding: A Variational Autoencoder Approach, Draft
   (w/ Francesco Grechi, Michael Woodford)

   Short Abstract: We study a model of neural coding that is based on the structure of a variational auto-encoder.

Refereed Conference Proceedings

6. Deconstructing the Filter Bubble: User Decision-Making and Recommender Systems
(w/ Duarte Gonçalves, Shan Sikdar)
14th ACM Conference on Recommender Systems 2020 (RecSys '20), Proceedings Link

   Short Abstract: We study a model of user decision making in the context of recommender systems. We show that user beliefs and risk-aversion levels are important for rationalizing existing empirical evidence and emphasize the usefulness of belief data in recommender system design and evaluation.

Works In Progress

7. The Value of Recommender Systems: Decomposing the Informational and Discovery Gains
(w/ Duarte Gonçalves, Ruoyan Kong, Daniel Kluver, Joseph Konstan)

   Data collection in progress, Pre-Registration Link

8. Shopping Alone: The Impact of The Decline of the American Mall
(w/ Louise Guillouet, Howard Zhang)

Presentations

The Effect of Privacy Regulation on the Data Industry: Empirical Evidence from GDPR

ACM Conference on Economics and Computation, July 2021, Budapest / Online

(*)Statistical Methods for Computational Advertising, October 2021, BIRS / Online

FTC PrivacyCon, July 2020, Online

Big Tech & Antitrust - Competition Policy in the Digital Age, October 2020, Yale Law / Online

International Industrial Organization Conference, March 2020, Drexel / *cancelled due to COVID-19*

Competing Bandits: The Perils of Exploration under Competition

(*)INFORMS Annual Meeting, October 2021, Anaheim / Online

MIT Conference on Digital Experimentation, November 2020, Online

ACM Conference on Economics and Computation, June 2019, Phoenix

ACM EC Workshop on ML and Strategic Behavior, June 2019, Phoenix (Poster / Lightning Talk)

Demand for Digital Attention: Evidence from a Social Media Experiment

International Conference on Computational Social Science, July 2021, ETH Zurich / Online

Deconstructing the Filter Bubble: User Decision-Making and Recommender Systems

ACM Conference on Recommender Systems, September 2020, Online

ICML Workshop on Participatory Approaches to Machine Learning, July 2020, Online (Poster)

Recommenders' Originals: Integrated Recommender Systems and Vertical Foreclosure

World Congress of Game Theory, July 2021, Budapest / Online

Young Economists Symposium, August 2019, Columbia University

Training Data Poisoning for Imperfect Information Games

Annual Machine Learning Symposium, January 2019, New York Academy of Sciences (Poster)

(*) indicates scheduled

Research Grants and Fellowships

Program for Economic Research Award for Field or Experimental Research, Columbia University, 2021
Amount: $19,625.00

Program for Economic Research Summer Fellowship, Columbia University, 2018,2020

College Prize for Excellence in Economics, Boston University, 2014

Hariri Institute for Computing Summer Research Award, Boston University, 2013

Tuition Exchange Scholarship, Boston University, 2010-2014

Work Experience

Software Engineer at HubSpot, 2015-2016

Software Engineer at Nutonian, 2014-2015

Co-founder at RequestNow, 2012-2014
Received initial funding from Rough Draft Ventures

Research Assistant

Yeon-Koo Che (Columbia University, Economics), Fall 2019-Fall 2020

Tobias Salz (Columbia University, Economics), Summer, Fall 2018

Michael Woodford (Columbia University, Economics), Summer 2017

Henry Lam (Boston University, Mathematics), Summer 2013

Robert King (Boston University, Economics), Summer 2012

Invited Summer School / Instructional Workshops

NBER Economics of Digitization Tutorial, 2021

NBER Young Scholars Workshop on the Economics of Artificial Intelligence, 2018

Summer School on Cognitive Foundations of Economic Behavior, 2018

Teaching Experience

"Data TA" - help honors thesis students with programming and econometrics (Spring 2018, 2020)

Teaching Assistant for Introduction to Econometrics for Simon Lee (Spring 2019)

Teaching Assistant for Economic Growth and Development for Xavier Sala-i-Martin (Fall 2017)

Miscellaneous

Nationality: Israel, United States

Programming Languages: Julia, Python, JavaScript, Java, C++, SQL, R, MATLAB, STATA

Human Languages: English (native), Hebrew (intermediate)

Open-Source Software: PlanOut.js, react-experiments, Scientist4J ($\sim$ 1 million total downloads)

BattleHack Boston Winner / 3rd Place World Finals, 2014