Guy Aridor

January 2024

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Academic Appointments and Affiliations

Northwestern University, Kellogg School of Management

Assistant Professor of Marketing

2022-

Donald P. Jacobs Scholar

2022-2023

CESifo Research Network Affiliate

2022-

Education

Columbia University

Ph.D. in Economics 2022

Committee: Yeon-Koo Che, Tobias Salz, Andrey Simonov, Michael Woodford, Andrea Prat

Boston University

B.A. Computer Science, Pure/Applied Mathematics, Economics

2014

Honors in Economics, summa cum laude

Research Interests

Industrial Organization, Economics of Digitization, Experimental Economics, Quantitative Marketing

Publications

1. Deconstructing the Filter Bubble: User Decision-Making and Recommender Systems (w/ Duarte Gonçalves, Shan Sikdar)

14th ACM Conference on Recommender Systems 2020 (RecSys '20), Publisher's Version

2. Recommenders' Originals: The Welfare Effects of the Dual Role of Platforms as Producers and Recommender Systems (w/ Duarte Gonçalves)

International Journal of Industrial Organization (2022), Publisher's Version

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

RAND Journal of Economics (2023), Publisher Version; Abstract at ACM EC'21

Working Papers

4. Market Definition in the Attention Economy: An Experimental Approach, Draft

Revision Requested, RAND Journal of Economics; Abstract at EC'23

Short Abstract: I study demand for social media applications by conducting an experiment where I comprehensively monitor how participants spend their time and randomize access to applications. I characterize substitution patterns and argue that relevant markets for social media applications may be wider than those considered by regulatory authorities, but narrower than those considered by technology firms.

5. Privacy Regulation and Targeted Advertising: Evidence from Apple App Tracking Transparency, Draft (w/ Yeon-Koo Che)

Short Abstract: We show that Apple's App Tracking Transparency Policy degraded the quality of targeted advertisements on Facebook and led to medium-term reductions in customer acquisition for Facebook-dependent firms.

6. The Economics of Social Media, Draft (w/ Rafael Jimenez, Ro'ee Levy, Lena Song)

Proposal Accepted, Journal of Economic Literature (Full Version Resubmitted)

Short Abstract: We review the literature in economics on social media, providing a conceptual framework that categorizes the literature in terms of production, distribution, and consumption of user-generated content.

7. The Economics of Recommender Systems: Evidence from a Field Experiment on MovieLens, Draft (w/ Duarte Gonçalves, Ruoyan Kong, Daniel Kluver, Joseph Konstan)

Abstract at EC'23

Short Abstract: We conduct a longitudinal field experiment on the movie recommendation platform MovieLens where we randomize the set of recommended movies and elicit beliefs about unseen movies. We use the data to decompose the influence that online recommendations have on consumption choices in terms of their informational and product discovery value.

8. 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. We highlight how our results relate to the role of data in the first-mover advantage in the digital economy.

- 9. Information-Constrained Coordination of Economic Behavior, Draft
 - (w/ Rava Azeredo da Silveira, Michael Woodford)

Revision Requested, Journal of Economic Dynamics and Control

Short Abstract: We study a model of decision-making based on the structure of a variational autoencoder. We show how our approach generalizes existing approaches such as rational inattention and show that our model can provide predictions consistent with experimental work on both learning and equilibrium behavior in coordination games.

Works in Progress

10. Privacy and Information Interventions: Evidence from a Field Experiment (w/ Sam Goldberg)

Received Marketing Science Institute Grant

Presentations

<u>2023-2024</u>: Advances in Field Experiments, ASSA Meetings (Discussant), EIEF Junior Conference on Applied Microeconomics[†], UK Workshop on Digital Economics[‡], The Economics of Platforms and Recommender Systems[‡]

2022-2023: Quantitative Marketing and Economics Conference, Virtual Quantitative Marketing Seminar, U.S. Department of Justice Antitrust, Federal Trade Commission, CESifo Area Conference on Economics of Digitization, University of Chicago Booth (Marketing), TSE Economics of Platforms Online Seminar, NBER Meeting of Digital Economics, USC AI in Management Conference, Stanford Workshop on New Measures of the Economy, Pontificia Universidad Catolica de Chile (Management Science), Singapore Management University (Econ), National University of Singapore (Marketing), ACM Conference on Economics and Computation, UK Competition and Markets Authority, NeurIPS Workshop on Information-Theoretic Principles in Cognitive Systems[‡], Workshop on Learning and Bounded Rationality (Stony Brook), Workshop on Memory, Beliefs and Choice[‡]

2021-2022: BIRS Workshop on Statistical Methods for Computational Advertising, INFORMS Annual Meeting, MIT Conference on Digital Experimentation, Tel Aviv University (Econ), Tel Aviv Coller (IS/Digitization), Hebrew University (Econ), Sciences Po (Econ), Imperial College London (Econ), University of Michigan Ross (Operations), Stanford GSB (Operations), University of Toronto Rotman (Econ), Microsoft (Office of Chief Economist), Toulouse School of Economics, Columbia GSB (Operations), Northwestern Kellogg (Marketing), HEC Paris (Econ/Decision Sciences), Stanford Digital Economy Lab Seminar, Keystone Strategy, CEPR-EIEF-Tor Vergata Workshop on Media, Technology, Politics and Society, NBER Summer Institute (IT and Digitization), ASSA Meetings[‡]

<u>2020-2021</u>: ACM Conference on Recommender Systems, ACM Conference on Economics and Computation, MIT Conference on Digital Experimentation, Yale Law Big Tech & Antitrust Conference - Competition Policy in the Digital Age, International Conference on Computational Social Science, World Congress of Game Theory

<u>Earlier</u>: Young Economists Symposium, ACM Conference on Economics and Computation, ACM EC Workshop on Learning in the Presence of Strategic Behavior, ICML Workshop on Participatory Approaches to Machine Learning, FTC PrivacyCon, New York Academy of Sciences Annual Machine Learning Symposium

 $(^{\dagger} = \text{scheduled}, ^{\dagger} = \text{co-author presentation})$

Research Grants and Fellowships

Research Grant, Marketing Science Institute, 2023

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

Teaching Experience

Northwestern Kellogg

Omnichannel Experience Strategy

Spring 2023, 2024

Columbia University

"Data TA" - help honors thesis students with programming and econometrics Spring 2020, 2021
Teaching Assistant for Introduction to Econometrics for Simon Lee Spring 2019, 2022
Teaching Assistant for Economic Growth and Development for Xavier Sala-i-Martin Fall 2017

Work Experience

Software Engineer at HubSpot

Software Engineer at Nutonian

2014-2015

Co-founder at RequestNow

2012-2014

Professional Service

Refereeing: ACM Conference on Economics and Computation Program Committee (EC '24), American Economic Journal: Microeconomics, American Economic Review, Economic Journal, International Journal of Research in Marketing, Journal of Business Venturing, Journal of the European Economic Association, Journal of Political Economy Microeconomics, Management Science, National Science Foundation, Quantitative Marketing and Economics

Other Reviewing MSI Alden G. Clayton Doctoral Dissertation Proposal Competition

Conferences:

Workshop on Platform Analytics (2024, UCSD, Scientific Committee)

SSRC Workshop on the Economics of Social Media (2023, NYU, Organizing/Scientific Committee)

Spring Meeting of Young Economists (2023, Collegio Carlo Alberto, Track Chair for IO)

Young Economists Symposium (2019, Columbia University, Organizing/Scientific Committee)

Miscellaneous

Nationality: Israel, United States

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

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

Open-Source Software: PlanOut.js, react-experiments, Scientist4J (~ 2 million total downloads)

Other Awards: BattleHack Boston Winner / 3rd Place World Finals, 2014