Guy Aridor

July 2023

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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, Draft
   (w/ Yeon-Koo Che, Tobias Salz)

   RAND Journal of Economics (Forthcoming); Abstract at ACM EC'21

Working Papers

4. Drivers of Digital Attention: Evidence from a Social Media Experiment, 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 estimate a demand model with inertia. I relate the findings to antitrust issues in these markets and argue that relevant markets for social media applications may be wider than those considered by regulatory authorities.

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

   Extended 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 recommender systems have on consumption choices in terms of their informational and product discovery value.

6. 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.

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

   Short Abstract: We study a model of decision-making based on the structure of a variational auto-encoder. 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 coordination games.

Works in Progress

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

   Short Abstract: We provide a conceptual framework to summarize the burgeoning literature on the economics of social media platforms.

9. The MovieLens Beliefs Dataset, *Data Collection Ongoing*
   (w/ Duarte Gonçalves, Ruoyan Kong, Daniel Kluver, Joseph Konstan)

10. The Welfare Effects of Privacy Information Online (w/ Sam Goldberg)

    Received Marketing Science Institute Grant

Presentations

2023-2024: Advances in Field Experiments[†]

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

<u>2021-2022</u>: 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)

<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

(† = scheduled)

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   *2015-2016*

Software Engineer at Nutonian   *2014-2015*

Co-founder at RequestNow   *2012-2014*

Professional Service

Journal Refereeing: *American Economic Journal: Microeconomics, American Economic Review, Economic Journal, International Journal of Research in Marketing, Journal of Business Venturing, Journal of Political Economy Microeconomics, Management Science, Quantitative Marketing and Economics*

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, Scientific Committee - Track Chair for Industrial Organization), 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 ($\sim$ 2 million total downloads)

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