

# Guy Aridor

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## Academic Appointments

### Northwestern University, Kellogg School of Management

Assistant Professor of Marketing

2022-

Donald P. Jacobs Scholar

2022-2023

## 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

## Working Papers

1. Drivers of Digital Attention: Evidence from a Social Media Experiment, [Draft](#)

*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 policies aimed at curbing digital addiction may be meaningful policy tools from an antitrust perspective.

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. 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. We use the model to characterize how perception adapts as the underlying environment changes.

## Publications

5. 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](#)
6. Recommenders' Originals: The Welfare Effects of the Dual Role of Platforms as Producers and Recommender Systems (w/ Duarte Gonçalves)  
*Accepted, International Journal of Industrial Organization*, [PDF](#)

## 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 completed*, [Pre-Registration Link](#)  
*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.
8. Shopping Alone: The Impact of The Decline of the American Mall  
(w/ Louise Guillouet, Howard Zhang)

## Presentations

2021-2022: Workshop on Statistical Methods for Computational Advertising, INFORMS Annual Meeting, MIT Conference on Digital Experimentation, Tel Aviv University (Econ, Information Management), 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<sup>†</sup>, CEPR Workshop on Media, Technology, Politics, and Society<sup>†</sup>, NBER Summer Institute (IT and Digitization)<sup>†</sup>, Toulouse Economics of Platforms Seminar<sup>‡</sup>

2020-2021: 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, ASSA Meetings<sup>‡</sup>, MaCCI EPoS Virtual IO Seminar<sup>‡</sup>

Earlier: 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, International Industrial Organization Conference (*cancelled due to COVID*), New York Academy of Sciences Annual Machine Learning Symposium

(<sup>‡</sup> = presented by co-author, <sup>†</sup> = 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

## Teaching Experience

### Columbia University

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

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

Received initial funding from Rough Draft Ventures

## Miscellaneous

*Nationality:* Israel, United States

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

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

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

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