

Alexander Teytelboym

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University of Oxford

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Employment

Otto Poon Research Fellow, Institute for New Economic Thinking, University of Oxford, 2014-present
 Postdoctoral Fellow, Laboratory for Information and Decision Systems, MIT, 2013-2014

Affiliations

Associate Member, Nuffield College, University of Oxford, 2014-present
 Fellow, Smith School for Enterprise and the Environment, University of Oxford, 2014-present
 Member of the Common Room, All Souls College, University of Oxford, 2015-2016

Education

DPhil, Economics, University of Oxford, 2013
 MPhil, Economics, University of Oxford, 2010
 BSc, Economics, London School of Economics, 2008

References

Professor Vincent Crawford Department of Economics University of Oxford vincent.crawford@economics.ox.ac.uk +44 1865 279339	Professor Asuman Ozdaglar Laboratory for Information and Decision Systems Massachusetts Institute of Technology asuman@mit.edu +1 617 3240058
Professor Cameron Hepburn Institute for New Economic Thinking University of Oxford cameron.hepburn@inet.ox.ac.uk +44 1865 288895	Dr Scott Duke Kominers Society of Fellows Harvard University kominers@fas.harvard.edu +1 301 5294162

Research Fields

Primary fields: Applied Microeconomic Theory
 Secondary fields: Market Design, Economics of Networks, Environmental Economics

Teaching Experience**Lecturer**

Spring 2017 Networks (undergraduate), Department of Economics, MIT

Summer 2015	Mini-course on Networks, Institute for Pure and Applied Mathematics, UCLA
Summer 2015	Mini-course on Empirical Methods for Network Analysis, European School on New Institutional Economics, Università di Corsica Pasquale Paoli
Summer 2014-2015	Mini-course on Market Design, Russian Summer School on Institutional Analysis, Higher School of Economics

Teaching Assistant

Spring 2010-2013	Research Methods in Social Sciences (graduate), Department of International Development, Oxford
Spring 2013	Introduction to Macroeconomics (undergraduate), University College, Oxford
Spring 2013	Game Theory (undergraduate), Pembroke College, Oxford
Fall 2010-2012	Core Microeconomics (undergraduate), Balliol College, Oxford
Fall 2010-2012	Introduction to Microeconomics (undergraduate), Balliol College, Oxford

Supervision

2016-2017	Alexander Katz, MPhil (2015-2017), with Péter Eső
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Research Experience and Other Employment

November 2016	University of Tokyo, Visiting Scholar
March 2016	University of Melbourne, European Union Centre Visiting Fellow
2014-2015	Lab for Information and Decision Systems, MIT, Research Affiliate
2013	Smith School for Enterprise and the Environment, Visiting Business Fellow
September 2011	Vivid Economics, Analyst
2010-2011	Office of Chief Economist, European Bank for Reconstruction and Development (EBRD), Intern and Research Consultant
2009	Smith School for Enterprise and the Environment, Research Assistant
2006-2009	Research Assistant to Tarek Hassan, Sanghamitra Bandyopadhyay, Frank Cowell

Professional Activities

Referee: *American Economic Review, Econometrica, Economic Bulletin, Economic Theory, Economica, Economics Letters, Environmental Research Letters, Games and Economic Behavior, International Journal of Game Theory, Journal of Economic Behavior and Organization, Journal of Economic Theory, Journal of Public Economic Theory, Journal of Political Economy, Management Science, Mathematical Social Sciences, Oxford Economic Papers, Oxford Review of Economic Policy, Proceedings of the National Academy of Sciences, Quarterly Journal of Economics, Review of Economic Studies, SIAM Journal on Applied Dynamical Systems, Social Choice and Welfare*

Contributor: *Bloomberg View, The Economist, The Week, Times Literary Supplement*

Journal Board

July 2015-present	Associate Editor, <i>Oxford Review of Economic Policy</i>
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Conference Organization

December 2016	<i>The Economic Consequences of Brexit</i> , British Academy
August 2016	<i>Market Design Perspectives on Inequality</i> , HCEO, University of Chicago (with Scott Duke Kominers)

Program Committee

April 2017	<i>Fourth International Workshop on Matching Under Preferences</i> , Cambridge, MA.
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Honors and Awards

2016	Skoll Centre for Social Entrepreneurship Research Grant (for <i>Refugees' Say</i>)
2012	Éprime Eshag Senior Scholarship
2012	OEP Fund, George Webb Medley Fund
2011	Young Economist at Lindau Nobel Economics Laureates Meeting
2010	Two-year Economics Department Doctoral Studentship

Selected Journal Publications

- “Social Groups and Social Network Formation” (with Bassel Tarbush), *Games and Economic Behavior*, forthcoming.
- “Gross Substitutes and Complements: A Simple Generalization”, *Economics Letters*, 123(2): 135-138, 2014.

Selected Research Papers

“Refugee Resettlement” (Job Market Paper)

(with David Delacrétaz and Scott Duke Kominers)

Over 100,000 refugees are permanently resettled from refugee camps to hosting countries every year. Nevertheless, refugee resettlement processes in most countries are *ad hoc*, accounting for neither the priorities of hosting communities nor the preferences of refugees themselves. Building on models from two-sided matching theory, we introduce a new framework for *matching with multidimensional constraints* that models refugee families' needs for multiple units of different services, as well as the service capacities of local areas. We propose several refugee resettlement mechanisms that can be used by hosting countries under various institutional and informational constraints. Our mechanisms can improve match efficiency, incentivize refugees to report where they would like to settle, and respect priorities of local areas thereby encouraging them to accept more refugees overall. Beyond the refugee resettlement context, our model has applications ranging from the allocation of daycare slots to the incorporation of complex diversity constraints in public school assignment.

“Trading Networks with Bilateral Contracts”, *revise and resubmit at Econometrica*.

(with Tamás Fleiner, Zsuzsanna Jankó and Akihisa Tamura)

We consider general networks of bilateral contracts that include supply chains. We define a new stability concept, called *trail stability*, and show that any network of bilateral contracts has a trail-stable outcome whenever agents' choice functions satisfy full substitutability (i.e. input substitutability, output substitutability and input-output complementarity). Trail stability is a natural extension of chain stability (Ostrovsky, 2008), but is a stronger solution concept in general contract networks. Trail-stable outcomes are not immune to deviations by arbitrary sets of firms. In fact, we show that outcomes satisfying an even more demanding stability property – *full trail stability* – always exist. For fully trail-stable outcomes, we prove results on the lattice structure, the “rural hospitals theorem” (Roth, 1986), strategy-proofness, and comparative statics of firm entry and exit. We then completely describe the relationships between various other concepts. When contracts specify trades and prices, we also show that competitive equilibrium exists in networked markets even in the absence of fully transferrable utility.

“A Simple Model of Cascades in Networks”

(with Yongwham Lim and Asuman Ozdaglar)

We consider a linear threshold model of cascades in networks. An agent switches (e.g. adopts an innovation) if the proportion of his neighbors who have already switched exceeds his threshold. Agents' thresholds are drawn randomly at the start of the cascade process. We present a result for the expected number of switches in arbitrary finite networks with any initial seeds. We define a new measure of an agent's ability to influence a cascade in a given network, called *cascade centrality*, which is the expected size of the cascade when the agent is the only seed in the network. We then define *contagion centrality*, which is the probability that all agents switch when the node is a seed. For certain network topologies, we find analytic expressions for cascade centrality and contagion centrality and show that there may be tension between them. Yet nodes with high cascade and contagion centrality share an interesting property: they have many neighbors, but their neighbors have few neighbors. As an illustration of cascade centrality, we look at how the network structure affects optimal prices when a profit-maximizing firm tries to spread an innovation. Optimal price and seeding behavior can be counterintuitive when firms price irreversible cascades.

Refereed Conference Publications

- “Competitive rumour spread in social networks” (with Yongwhan Lim and Asuman Ozdaglar), **NetEcon** (Workshop on the Economics of Networks, Systems and Computation), **ACM SIGMETRICS Performance Evaluation Review**, 2016.
- “Trading networks with bilateral contracts” (with Tamás Fleiner, Zsuzsanna Jankó, and Akihisa Tamura), **AMMA** (Auctions, Market Mechanisms and Their Applications), Extended Abstract, 2015.
- “Homophily in online social networks” (with Bassel Tarbush), **WINE** (Conference Web and Internet Economics), 2012.

Other Research Papers

- “The Local Refugee Match” (with Will Jones), *revise and resubmit at Journal of Refugee Studies*.
- “The Refugee Match” (with Will Jones), *revise and resubmit at Refugees Survey Quarterly*.
- “Matching systems for refugees” (with Will Jones), *revise and resubmit at Journal of Migration and Human Security*.
- “Reforming the EU ETS – Where are we now?” (with Cameron Hepburn), *Energy Tax and Regulatory Policy in Europe: Reform Priorities* (edited by Ian Parry, Karen Pittel, and Herman Vollebergh), Chapter 1, MIT Press, forthcoming.
- “Green Growth” (with Cameron Hepburn and Alex Pfeiffer), *Handbook of Economic Geography*, forthcoming.
- “Choices, preferences and priorities in a matching system for refugees” (with Will Jones), **Forced Migration Review**, 51: 80-82, 2016.
- “The third wave in the economics of climate change” (with J. Doyne Farmer, Cameron Hepburn and Penny Mealy), **Environment and Resource Economics**, 62(2): 1-29, 2015.
- “Innovation, Path Dependence and Climate Policy” Paper (with Philippe Aghion, Cameron Hepburn and Dimitri Zenghelis), Centre for Climate Change Economics and Policy Grantham Research Institute on Climate Change and the Environment Policy, 2014.
- “Resilient and inclusive prosperity within planetary boundaries” (with Eric Beinhocker, J. Doyne Farmer and Cameron Hepburn), **China & World Economy**, 22(5): 1-16, 2014.
- “Political Economy of Climate Change Policy” (with Franklin Steves), Smith School for Enterprise and the Environment Working Paper 13-02, 2013.
- “Corruption and Trust” (with Franklin Steves) in Steves F. (ed.) *Life in Transition: After the Crisis*, Chapter 4, EBRD: London, 2011.
- “Political Economy of Climate Change Policy in the Transition Region” (with Daniel Treisman and Franklin Steves) in Chirmiciu A. and S. Fankhauser (eds.) *The Low Carbon Transition*, Chapter 4, EBRD: London, 2011.
- “Part II: Policy instruments for sustainable road transport” (with Georgina Santos and Hannah Behrendt), **Research in Transportation Economics**, 28(1): 46-91, 2010.
- “Part I: Externalities and economic policies in road transport” (with Georgina Santos, Hannah Behrendt, Laura Maconi and Tara Shirvani), **Research in Transportation Economics**, 28(1): 2-45, 2010.

Research Papers in Progress

- “Competitive equilibrium and graphical demand types”
- “Auctions with complements: An experimental investigation” (with Daniel Marszalec and Alexander Levkun)
- “Natural capital market design” (with Scott Duke Kominers)
- “Permitting by-catch” (with Scott Duke Kominers and Joseph Shayani)
- “Matching in supply chains with complementary inputs” (with Samson Alva)
- “Global carbon leakage: A networks approach” (with Bassel Tarbush and Maia King)
- “Economic complexity of green knowhow” (with Penny Mealy)

Edited Book and Journal Special Issue in Progress

- *Fair by Design: Economic Design Approaches to Inequality* (with Scott Duke Kominers), Oxford University Press
- *Oxford Review of Economic Policy* Special Issue on Market Design and Economic Policy (with Vincent Crawford and Scott Duke Kominers)

Invited Seminars and Conferences

2017: AEA Meetings, Bonn, University of Southern Denmark.

2016: NBER Market Design Workshop, Transatlantic Theory Workshop, GREQAM Aix-Marseille, University of Sydney, Monash University, University of Melbourne, Australian National University, University of Adelaide, University of Sydney, Lund University.

2015: Conference on Information Transmission in Networks (Harvard), 15th SAET Conference (Cambridge), Econometric Society World Congress (Montréal), Coalition Theory Network (Venice), MATCH-UP (Glasgow), Workshop on Information in Networks (New York), 10th Conference on Economic Design (Brussels), ECARES, Ghent University, University of Oxford, University of Cambridge, University of the Basque Country.

2014: Social Choice and Welfare Conference (Boston), CIREQ Matching Conference (Montréal), IFORS (Barcelona), 14th SAET Conference (Tokyo), Workshop on Coalitions and Networks (Montréal), INFORMS, LIDS Student Conference, Harvard University, Southern Methodist University, National University of Singapore, INSEAD (Singapore), Singapore University of Technology and Design, Boston College, George Mason University, Université Laval, Baruch College, Queen Mary (University of London), Ludwig-Maximilians-Universität.

2013: York Game Theory Symposium, Royal Economic Society Annual Conference (London), BEELab LabSi Workshop on Behavioural and Experimental Economics (Florence), Conference on Market Design (Lund), 13th SAET Conference (Paris), EEA Annual Congress (Gothenburg), UECE Meetings on Game Theory and Applications (Lisbon), Diversity and Public Policy (New Economic School, Moscow), Oxford Internet Institute, University of Leicester, Université de Montréal.

2012: 8th Workshop on Internet and Network Economics (Liverpool), 23rd International Conference on Game Theory at Stony Brook University (New York), MATCH-UP (Budapest), Workshop on Information in Networks (New York), UECE Meetings: Game Theory and Applications (Lisbon), Learning, Networks and Games Seminar at Nuffield College (Oxford), CIREQ PhD Conference (Montréal), University of York, University of St Andrews.

Personal Information:

Born: 21 April 1987 (USSR)

Citizenship: Dual British/Russian

Erdős number: 3 (via Tamás Fleiner)