

RUSLAN MOMOT

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Education

INSEAD, Fontainebleau, France

- Ph.D. in Management (Technology and Operations Management) Exp. Jun 2018
- M.Sc. in Management (Technology and Operations Management) Jun 2014

Moscow Institute of Physics and Technology, Moscow, Russia

- M.Sc. in Applied Mathematics and Physics Jun 2012
- B.Sc. in Applied Mathematics and Physics Jun 2010

Research and Teaching Interests

Research: social operations management; social information management; retailing on social networks; information systems; reputations; privacy; social platforms and marketplaces

Teaching: core operations management, business model innovation, social operations management

Refereed Publications/Articles under Review

- **The Use and Value of Social Network Information in Selective Selling of Exclusive Products**
with Elena Belavina and Karan Girotra, *minor revision invited at Management Science* - [SSRN]
» Media Coverage: [Welcome to the Social Media Shopping Mall](#), INSEAD Knowledge
» *Finalist, 2016 IBM Service Science Best Student Paper Award*
- **Strategic Investment in Protection in Networked Systems**
with Matt Leduc, *published at Network Science*, 5(1), March 2017, pp. 108-139 - [Link]
» Selected for presentation at WINE 2015, Amsterdam (The 11th Conference on Web and Internet Economics)
» Published in the proceedings to WINE 2015 - [Link]

Work in Progress

- **Inventory Management for 1% Products**,
with Elena Belavina, preliminary draft is available upon request
- **Nudging Flexible Workforce: Empirical Evidence From Online Cleaning Services Platform**,
with Ekaterina Astashkina and Marat Salikhov, results are available upon request
- **Endogenous Privacy in Social Networks**
with Elena Belavina and Karan Girotra
- **Locality, Caste and Social Media: Comparing Peer-Effects in Diffusion of Fashion Trends**,
with Elena Belavina and Nitish Jain

Teaching Experience

- **Production and Operations Management MBA Core Course Tutorials**, INSEAD 2014
INSEAD MBA Students split into two groups. 4 sessions x1.5 hours taught for each group. Major subjects covered: process improvement, queuing, and newsvendor models. Professor: Karan Girotra.
Evaluations:
Spring 2014: 4.84/5.00, responses 89/300
Fall 2014: 4.82/5.00, responses 87/308

- **Teaching Assistant, Executive Training Program “Sberbank 500”**, INSEAD 2013-2015
Decision Making Under Uncertainty executive education course for 500 students - executive managers of the biggest Russian bank “Sberbank”. Professor: Ilia Tsetlin.
- **Course Instructor, Math Tutorials PhD Core**, INSEAD 2013
15 PhD students. Introduction to calculus, linear algebra, optimization. 15 sessions, 1.5 hours each.

Conference Presentations

- INFORMS, Houston, TX Oct 2017
- MSOM, Chapel Hill, NC Jun 2017
- POMS, Seattle, WA May 2017
- INFORMS, Nashville, TN Nov 2016
- WINE, Amsterdam, The Netherlands Dec 2015
- INFORMS, Philadelphia, PA Nov 2015
- MSOM, Toronto, Canada Jun 2015
- INFORMS, San Francisco, CA Nov 2014
- MSOM, Seattle, WA Jun 2014
- INFORMS, Minneapolis, MN Oct 2013

Honors & Awards

- Finalist, IBM Service Science Best Student Paper Award 2016
- Deans’ Commendation for Excellence in MBA Teaching, INSEAD 2014
- Yearly given to 3 PhD Students, across both campuses in Fontainebleau and Singapore
- INSEAD Doctoral Fellowship 2012-2017
- MIPT B.Sc. summa cum laude 2010
- MIPT Scholarship for Outstanding Academic Achievements 2006-2012
- MIPT Academic Council’s Scholarship 2006-2007
- Ukrainian National Physics, Mathematics Olympiads 2003-2006

Other Experience

Consulting

AKVION Pharmaceutical, Logistics Department, Moscow, Russia

Research Positions

- NEQLab, Moscow Institute of Physics and Technology, Moscow, Russia 2009-2012
- Graphics and Media Lab, Moscow State University, Moscow, Russia 2011
- Institute for Problems in Mechanics RAS, Moscow, Russia 2009-2011
- Fermi National Accelerator Laboratory (Fermilab), Chicago, USA 2010

Other Publications

“Comparative study of nonequilibrium plasma generation and plasma-assisted ignition for C 2-hydrocarbons”, I. Kosarev, S. Kindysheva, R. Momot, E. Plastinin, N. Aleksandrov, and A. Starikovskiy, *Combustion and Flame* (2016).

Programming Languages

R · Python · Stan · Mathematica · C/C++ · LaTeX

Languages

Ukrainian (native) · Russian (native) · English (fluent) · French (intermediary)

Other

swimming, skiing, climbing (bouldering), table tennis, yoga, guitar, piano

References

- **Prof. Karan Girotra**
Operations, Technology & Information Management, Cornell Tech & The Cornell SC Johnson College of Business
Technology & Operations Management, INSEAD (Paul Dubrue Chaired Professor of Sustainable Development)
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- **Prof. Elena Belavina**
Operations Management, Chicago Booth School of Business
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- **Prof. Serguei Netessine**
Operations, Information and Decisions, The Wharton School, University of Pennsylvania
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Abstracts of Papers

The Use and Value of Social Network Information in Selective Selling of Exclusive Products

with Elena Belavina (Chicago Booth) and Karan Girotra (Cornell Tech, INSEAD), 2nd review at *Management Science* - [SSRN]

We consider the use and value of social network information in selectively selling goods and services whose value derives from exclusive ownership among network connections or friends. Our stylized model accommodates customers who are heterogeneous in their number of friends (degree) and their proclivity for social comparisons (conspicuity). Firms with information on either (or both) of these characteristics can use it to make a product selectively available and increase their profits by better managing the exclusivity-sales trade-off. We find that the *firm's best targets are high-conspicuity customers within intermediate-degree segments* – in contrast with the practice of targeting high degree customers. We also find that *information about degree is more valuable than information about conspicuity*. Surprisingly, strategies informed only by degree perform no worse than those informed by degree and conspicuity both, yet the opposite is not true. Customer self-selection is a perfect substitute for unavailable information on conspicuity, but there is no such recourse when degree information is unavailable. Examining alternate settings (conformance social comparisons, functional value heterogeneity) suggests that *there are two canonical categories of social information*– less valuable information on characteristics where the firm's preferred customers are also the most interested customers and more valuable information on characteristics where they are not.

Strategic Investment in Protection in Networked Systems

with Matt Leduc, *Network Science*, 5(1), March 2017, pp. 108-139 - [[Network Science Link](#)]

We study the incentives that agents have to invest in costly protection against cascading failures in networked systems. Applications include vaccination, computer security and airport security. Agents are connected through a network and can fail either intrinsically or as a result of the failure of a subset of their neighbors. We characterize the equilibrium based on an agent's failure probability and derive conditions under which equilibrium strategies are monotone in degree (i.e. in how connected an agent is on the network). We show that different kinds of applications (e.g. vaccination, airport security) lead to very different equilibrium patterns of investments in protection, with important welfare and risk implications. Our equilibrium concept is flexible enough to allow for comparative statics in terms of network properties and we show that it is also robust to the introduction of global externalities (e.g. price feedback, congestion).

Inventory Management for 1% Products

with Elena Belavina (Chicago Booth), preliminary draft is available upon request

Sociological trends have led to consumer's increasing willingness to purchase goods whose value lies partly in the exclusivity of their ownership. Firms selling these goods face a trade-off–while producing more allows for extracting more revenues, it also may compromise the product's reputation for exclusivity. In this study, we develop a dynamic game-theoretic model of reputations—a repeated game with long-lived, short-lived players, incomplete information, adverse selection, Bayesian updating of reputations and strategic memory. Our findings suggest a radical departure from the recommendations of the existing literature. Unlike the over-production equilibrium that is widely touted in the existing literature, our more realistic dynamic model suggests that in equilibrium *the firm follows a non-stationary cyclic strategy that alternates scarcity phases with the overproduction phases*. While the former is used as an exclusivity reputation building mechanism, the latter represents a reputation exploitation phase.

Nudging Flexible Workforce: Empirical Evidence From Online Cleaning Services Platform

with Ekaterina Astashkina (INSEAD) and Marat Salikhov (INSEAD), results are available upon request

This study focuses on platforms that facilitate matching of heterogeneous customers (tasks) with heterogeneous contractors. Centralized platforms (e.g., Uber) rigidly assign contractors to customers, while decentralized platforms (e.g., TaskRabbit) let contractors choose tasks they prefer. What is the right personalized assortment of tasks that hybrid platforms should offer to its contractors? We build an econometric model of contractors' choice, which we estimate on a proprietary dataset of the cleaning platform (similar to HomeJoy, Handy). We then formulate platform's online optimization problem of assortment personalization, and identify policies that achieve near-optimal performance.