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UNDERGRADUATE STUDIES

B.Sc. in Computer Science and Economics, Tel Aviv University, 2004
Economics, *summa cum laude*; Computer Science, *magna cum laude*

GRADUATE STUDIES

M.A. in Economics, *summa cum laude*, Tel Aviv University, 2005

Ph.D. Candidate in Business Economics, Harvard University, 2005 to present
Thesis Title: "Essays on Networks and Markets"
Expected Completion Date: June 2010

References

Professor Al Roth
Harvard Business School
(617) 495-5447, al_roth@harvard.edu

Professor Susan Athey
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Professor Chaim Fershtman
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TEACHING AND RESEARCH FIELDS

Primary: Economic Theory

Secondary: Social Networks, Market Design, Experimental Economics

TEACHING EXPERIENCE

Spring 2008	Market Design, TF for Professors Peter Coles and Al Roth
Spring 2005	Game Theory & Economics of Information, TA for Professor Ariel Rubinstein
Fall 2004	Microeconomic Theory, TA for Professor Ariel Rubinstein
Summer 2004	Microeconomic Theory B (price theory), TA for Professor Ran Spigler
Spring 2004	Game Theory & Economics of Information, TA for Professor Ady Pauzner
Fall 2003	Industrial Organization, TA for Professor Yossi Spigel

ACADEMIC HONORS AND FELLOWSHIPS

2005 - present	Harvard University Graduate Student Fellowship
2002 - 2004	Honor Fellowship, The Eitan Berglas School of Economics
2003, 2004	Honor scholarships, Gershon H. Gordon Faculty of Social Sciences
2003	Honor scholarship, Raymond & Beverly Sackler Faculty of Exact Sciences

PROFESSIONAL ACTIVITIES

2009 – present	Coordinator: Workshop in Research in Behavior in Games and Markets
2006 – 2009	Founder and Coordinator: Research Group in Social Networks in Economics
Selected talks:	SITE 2008, Market Design Working Group Meeting (NBER), Tel Aviv University, Bonn Graduate School of Economics, CTN Workshop (Maastricht), Games 2008 (NU), IDS Workshop (Wharton)
Referee:	QJE, Rand, Wine 2008, JEMS, JSE

RESEARCH PAPERS

Community Structure and Market Outcomes: Towards a Theory of Repeated Games in Networks (Job Market Paper)

Consider a large market with asymmetric information, in which sellers choose whether to cooperate or deviate and 'cheat' their buyers, and buyers decide whether to re-purchase from different sellers. We model active trade relationships as links in a buyer-seller network and suggest a framework for studying repeated games in such networks. In our framework, buyers and sellers have rich yet incomplete knowledge of the network structure. The introduction of incomplete information allows us to derive meaningful conditions that determine whether a network is a Steady State Cooperation Network (SSCN) - a network that is consistent with trade and trust between every buyer and seller that are connected.

For a network to be a SSCN, links in the network need to have high enough future values. We show that the entire network structure can be summarized by a simple expression that captures these future values and that three network features increase the values of links: sparsity, moderate competition, and segregation. Moreover, networks that maximize trade in the absence of cooperation constraints are generally not SSCNs. Constrained trade maximizing networks are in between 'old world' segregated and sparse networks, and a 'global market'. Institutions such as reputation networks, litigation, and third-party evaluation services expand the set of SSCNs and restore efficiency. Our results offer a stylized interpretation of the evidence on trade networks within markets and of the documented effect of institutions on the network structure in such markets.

Effective Word-Of-Mouth: Reputation Networks and Market Structure (with David Goldberg)

This paper studies the effect of Word-Of-Mouth (WOM) on markets' structure. We consider markets with moral hazard (e.g. service industries in which payments are made prior to receiving a service). In such markets, transactions require long term cooperation. We ask the following question: how is the ability of buyers and sellers to cooperate in different market structures affected by WOM? For this end, we generalize previous work on repeated games in buyer-seller networks and allow for the presence of reputation networks – networks that capture the transmission of information between buyers. For every quality of reputation networks between buyers, we characterize the set of buyer-seller networks in which every buyer and seller that are connected, cooperate with each other. We find that high quality reputation networks facilitate dense buyer-seller cooperation networks, and thus allow volumes of trade that are higher than in the absence of reputation networks. Surprisingly, high quality reputation

networks limit the competition in a market by restricting the number of sellers in any cooperation network, leading to potential welfare losses by reducing the volume of trade. However, we show that such losses disappear in large markets, suggesting that high quality reputation networks are welfare maximizing in large markets.

When Markets Unravel: Social Networks, Information Transmission, and the 'Hiring Frenzy'

In a model of local unraveling (early hiring), information about workers' productivity is revealed over time and transmitted via a network of connections between firms and workers. Although employment begins after workers finish their training, employment contracts can be signed earlier. Surprisingly, unraveling increases and then decreases with network density, but monotonically increases with the network's span, as well as with an increase in information asymmetries between firms. Unraveling decreases as the efficiency of the post-graduation marketplace increases, and is affected non-monotonically by changes in the accuracy of early information.

A Consistent Weighted Ranking Scheme with an Application to NCAA College Football Rankings (with Chaim Fershtman and Neil Gandal)

The NCAA college football ranking has been plagued by controversies the last few years. The difficulty arises because there is a need to make a complete ranking of teams even though each team has a different schedule of games with a different set of opponents. A similar problem arises in rankings of patents or academic journals. This paper develops a consistent weighted ranking (CWR) scheme in which the importance of (weights on) every success and failure are endogenously determined by the ranking procedure. The scheme allows the ranking to depend on a set of parameters relevant for each problem. For sports rankings, the parameters reflect the importance of winning vs. losing, the strength of schedule and the relative importance of home vs. away games. We take advantage of the special structure the NCAA college football league and use "historical" data from the 1999-2003 seasons to estimate the parameters as part of the ranking procedure. Finally we use the parameters that were estimated and the outcome of the 2004-2007 regular seasons to test our predictions. None of the six ranking schemes used by the Bowl Championship Series predicted more bowl games correctly over the 2004-2007 period than our CWR scheme.

RESEARCH PAPERS IN PROGRESS

Differentiation and Market Structure: A Network Analysis (with David Goldberg)

Trust and Reciprocity in a Summer Camp with Palestinian and Israeli Youth (with Chaim Fershtman, Ray Fisman, Shachar Kariv, and Jeffrey Naecker)

On Friends and Stereotypes: Network Position and Behavior in a Group of Palestinian and Israeli Youth (with Chaim Fershtman)