

The Economics of Networks
European University Institute
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Office Hours: By e-mail appointment

Course Overview

Social networks have profound effects on individuals' behavior and economic outcomes. They are critical for the trade of goods and services. They influence our opinions, which products we buy, how much education we obtain. They shape our political attitudes and our likelihood of succeeding professionally. They are important in determining how diseases spread and they are essential to understanding the optimal design of organisations and the optimal design of policies based on peer effects. These premises, which find empirical support in a variety of studies, are the motivation for this course.

The course provides an overview of the theoretical work that has been developed in the economic of networks.

Assessment

Develop a critical review of one article. The critical review should be composed of three parts. The first part should briefly summarise the analysis conducted in the paper and the principal insights of the article. The second part should describe in more details the methodology adopted, the main results obtained and the intuitions behind the results, the relation with the existing literature and the contribution of the paper with respect to existing work. The final part should emphasise the weakness of the paper and possible extensions of the framework. Overall, the critical review should not be more than three pages. Quality is better than quantity.

Deadlines will be giving at the beginning of the course.

Outline:

Network Formation: Economic models of network formation and statistical models of network formation

Bala, V. and S. Goyal (2000), A Non-Cooperative Model of Network Formation, *Econometrica*.

Jackson, M. and J. Wolinsky (1996), A strategic model of social and economic networks, *Journal of Economic Theory*

Jackson, M. and B.W. Rogers (2007), Meeting strangers and friends of friends: how random are social networks? *American Economic Review*

Network Games: Complete information, incomplete information and endogenous networks

Ballester, C., Calvo, A. and Y. Zenou (2006), Who's Who in Networks. Wanted: the Key Player, *Econometrica*.

Bramouille, Y., R. Kranton and M. D'Amours (2014), Strategic Interaction and Networks. *American Economic Review*.

Goyal, S. and A. Galeotti (2008), Law of the few. *American Economic Review*.

Galeotti, A., S. Goyal, M. Jackson, F. Vega-Redondo and L. Yariv, (2010), Network Games, *Review of Economic Studies*.

Charness, G., F. Feri, M. A. Melndez-Jimnez and M. Sutter, 2014, Experimental Games on Networks: Underpinnings of Behavior and Equilibrium Selection, *Econometrica*.

A general targeting problem

Ballester, C., Calvo, A. and Y. Zenou (2006), Who's Who in Networks. Wanted: the Key Player, *Econometrica*.

Galeotti, A., B. Golub, and Goyal S (2017), Targeting interventions in networks. Mimeo.

Additional Readings

The Oxford Handbook of the Economics of Networks, edited by Y. Bramouille, A. Galeotti and B. Rogers.

Social and Economic Networks, by M. O. Jackson

Connections: an introduction to the economics of networks, by S. Goyal

Complex networks, by F. Vega-Redondo.