

DR. SIMONE GABBRIELLINI - CURRICULUM VITAE

[gabbini](#)

CURRENT AND PAST POSITIONS

- 2018 - ABM, SNA and Data Scientist Consultant
- 2016 - 2018 Chief Data Scientist and Co-Founder at DocDelta, New York, NY.
- 2015 - 2016 Post Doc, Department of Economics and Management, University of Brescia
Member of GECS, Research Group on Experimental and Computational Sociology, University of Brescia
- 2013 - 2015 Post-doctoral researcher, GEMASS, CNRS & Paris Sorbonne.
Agence Nationale de la Recherche (ANR) funded research project "DIFFCERAM"
- 2012 - 2013 Post doc, Department of Computer Sciences, Sciences and Engineering, University of Bologna (Italy)

Research grant within the ePOLICY Project (7th Framework Program Project on ICT solutions for Governance and Policy Modeling) (FP7 ICT- 2011-7 grant n. 288147).
- 2010 - 2011 Researcher, Panmind research centre (Siena, Italy)

Research grant from Monte dei Paschi di Siena Bank and Provincia di Siena.
- 2006 - 2009 Research assistant (with teaching tasks) in Social Network Analysis and Methodology and Techniques of Social Research, Department of Social Sciences, University of Pisa (Italy)
- 2004 - 2006 Instructor (Cultore della Materia) in Methodology and Techniques of Social Research, Department of Political and Social Sciences, University of Pisa (Italy)

OTHER POSTS

- 2011 - Independent consultant on Agent Based Modeling, Social Network Analysis and Predictive Analytics (major clients: US- and European-based companies (namely, Ekovia LLC and ShiftN) and Universities (namely, Scuola Superiore S. Anna, Stanford University and New York University).

EDUCATION

- 2009 PhD in "History and Sociology of Modernity", University of Pisa. Dissertation: "Evoluzione strutturale e diffusione dell'innovazione in un forum online: un approccio agent-based ai meccanismi sociali di una comunità di giocatori di MMOGs." Supervisors: Andrea Salvini, Pietro Terna (external member)
- 2005 MA in Sociology (magna cum laude), University of Pisa. Dissertation: "Elaborazione dei dati nella Social Network Analysis attraverso il pacchetto sna: analisi e possibilità di ulteriore innovazione." Supervisor: Andrea Salvini
- 2003 BA+MA in Political Sciences, University of Pisa. Dissertation: "La galassia e-book: il medium è ancora il messaggio?" Supervisor: Massimo Ampola

RESEARCH INTERESTS

My research focuses on on-line based communications, diffusion of innovation, collaborative behavior, and status hierarchies in small task-oriented groups.

I also have strong interests in economic sociology, especially tax evasion dynamics, and sociology of innovation and entrepreneurship, especially the application of ABM concepts to solve business problems.

My work relies on social network analysis and on agent-based modeling as powerful tools to deal with the complexity and dynamics of human behaviors and interactions. I use social network analysis to statistically describe empirical patterns and agent-based modeling to formalize them and to get theoretical insights on the social mechanisms underlying such patterns.

Programming is a longstanding interest of mine and I have advanced knowledge of Java, Scala, NetLogo, R, SPSS. I have developed a strong interest in large networks analysis that led me to learn Spark, a fast and general engine for large-scale data processing, as well as database engines like MySQL and SQLite

ADDITIONAL TRAINING

- 2017 Big Data and Social Analytics by MIT on GetSmarter
(<https://www.credential.net/sy6dczmk>)
- 2015 R Programming by Johns Hopkins University on Coursera
(<https://www.coursera.org/account/accomplishments/records/u8JUcF6vTwYHyEctJ>)
- 2015 The Data Scientist's Toolbox by Johns Hopkins University on Coursera
(<https://www.coursera.org/account/accomplishments/certificate/DBS3ZYBE2A>)

- 2009 (Teaching assistant) Workshop on Social Network Theory and Methods, held by Filip Agneessens, VU University, Amsterdam - Local organizers: Department of Social Sciences, University of Pisa

PUBLICATIONS

PEER REVIEWED JOURNALS

- 2018 Manzo G., Gabbriellini S., Roux V. and Mbogori FNM, Complex Contagions and the Diffusion of Innovations: Evidence from a Small-N Study, *Journal of Archaeological Method and Theory*, vol 25, Issue 4, pp. 1109-1154
- 2015 Gabbriellini S. and Torroni P. "Microdebates. Structuring debates without a structuring tool", *AI Communications*, vol 29, n. 1, pp. 31-51
- 2014 Gabbriellini S. "The evolution of online forums as communication networks: an agent-based model". *Revue Française de Sociologie*, vol.55, n.4, Special Issue "Agent-based simulation in Sociology: principles, applications, and tools"

BOOKS

- 2011 Gabbriellini S., *Simulare Meccanismi Sociali con NetLogo. Una introduzione*, FrancoAngeli, Milano

BOOK CHAPTERS

- 2018 Roux V. and Gabbriellini S, Firing Structures and Transition Period in Rajasthan (India, 2005-2015). Unstable Choices before Definitive Selection. in Charlotte Langhøj and Ilana Caloi (eds.), *Technology in Crisis. Technological changes in ceramic production during periods of trouble*. Presses Universitaires de Louvain, AEGIS series, Louvain, pp.35-44., 2019
- 2017 Gabbriellini, S. and Santini, F. "Positive and negative arguments in review systems: An approach with arguments", in Bex, Grasso, Groen, Paglieri & Reed (eds.), *Argument Technologies: Theory, Analysis, and Applications*, College Publications, UK
- 2017 Gabbriellini S., "I Big Data", in Barbera, F. & Pais, I. (eds.), *Fondamenti di sociologia economica*, EGEA Bocconi, Milano.
- 2017 Dianchi, F., Gabbriellini, S and Squazzoni, F., "I modelli ad agenti", in Barbera, F. & Pais, I. (eds.), *Fondamenti di sociologia economica*, EGEA Bocconi, Milano.
- 2016 Roux, V. and Gabbriellini, S., "Structures de cuisson et période de transition au Rajasthan (Inde, 2005-2015). Des choix instables avant sélection définitive", in Christel Müller, Monica Heintz (Eds.), *Transitions historiques*. Editions de Boccard, Paris

- 2010 Short course on "Analysis of Longitudinal Social Network Data using SIENA" by Tom A.B. Snijders & Johan Koskinen, ETH, Zurich.
- 2008 Course on "Swarm-Like Agent Protocol in Python" (SLAPP) by Pietro Terna, Department of Economics, University of Turin
- 2006 ZUMA advanced simulation workshop, by Nigel Gilbert and Klaus Troitzsch, Institut für Wirtschaft, Universität Koblenz-Landau, Koblenz
- 2005 Fifth Summer School on the analysis of Political and Managerial Networks "POLNET", by Ulrik Brandes, Department of Organizational Studies, University of Tilburg, Tilburg
- 2005 International Summer School "Neural networks: perception, action and embodied knowledge", Department of Psychology, University of Bologna

MAIN TEACHING APPOINTMENT

- 2018 (Instructor) "School in AMB for Social Scientists", ESLS PhD Programme in Economic Sociology and Labour Studies and GECS, University of Brescia, Brescia (40h) in English
- 2017 (Instructor) "School in AMB for Social Scientists", ESLS PhD Programme in Economic Sociology and Labour Studies and GECS, University of Brescia, Brescia (40h) in English
- 2016 (Instructor) "School in AMB for Social Scientists", ESLS PhD Programme in Economic Sociology and Labour Studies and GECS, University of Brescia, Brescia (40h) in English
- 2015 (Instructor) "Agent-based modelling for Social Scientists", Doctoral Schools "Economic Sociology and Labour Studies", Collegio Lucchini, Brescia (40h) - in English
- 2014 (Instructor) "Agent-based modelling and Sociology", Doctoral Schools "Economic Sociology and Labour Studies", Collegio Lucchini, Brescia (30h) - in English
- 2013 (Instructor) "Modelli di Simulazione Sociale Basata su Agenti", Summer School organized by Istituto di Scienze Biomediche and Dipartimento di Storia, Società e Studi sull'Uomo, University of Salento, with a grant from Regione Puglia (35h) - in Italian
- 2012 (Instructor) "Agent-Based Modeling with NetLogo", Social Sciences Graduate School, Department of Sociology, University of Trento (20h) - in Italian
- 2011 (Instructor) "Agent-Based Modeling with NetLogo", Doctoral School Mediatrends - Department of Political Science, Sociology & Communication, University of Rome, La Sapienza (5h) - in Italian
- 2010 (Teaching assistant) Spring Training School "Open Scholarly Communities on the Web: Theory and Practice" - Local organizers: Dr. Francesca Di Donato, Prof. Maria Chiara Pievatolo, University of Pisa

- 2012 Gabbriellini S. and Torroni P. "Large-scale agreements via microdebates". In Proceedings of the 1st International Conference on Agreement Technologies (AT 2012), Dubrovnik, Croatia, October 15-16, 2012. CEUR Workshop Proceedings, Vol. 918, pp. 366-377. ISSN 1613-0073
- 2012 Gabbriellini S. and Torroni P. "Microdebates for policy-making". Work presented at the 3rd International Conference on Computational Sustainability (CompSust'12), Copenhagen, Denmark, July 4-6, 2012.
- 2009 Gabbriellini S. "Social networks and Insecurity". In Parrillo, V., Uncertainty and Insecurity in the New Age. Proceedings of the Fifth Italo-American Conference, William Paterson University, New Jersey.
- 2004 Gabbriellini S. "The aim of a Neural Social Researcher". In Proceedings of the Sixth International Conference on Logic and Methodology (RC33), Amsterdam, The Netherlands.
- 2004 Gabbriellini S. and Gisfredi P. "L'innovazione didattica nell'Università di Pisa". CAFRE, WP n.1

BOOK REVIEWS

- 2016 Gabbriellini S: Agent-Based and Individual-Based Modeling: A Practical Introduction by Steven F. Railsback and Volker Grimm. *J. Artificial Societies and Social Simulation* 19(1)
- 2014 Gabbriellini S: Computational Approaches to Studying the Co-Evolution of Networks and Behavior in Social Dilemmas (Wiley Series in Computational and Quantitative Social Science) by Renée Corten. *J. Artificial Societies and Social Simulation* 17(3) (2014)

EDITORIAL PUBLICATIONS

- 2009 Gabbriellini, S. "Giochi di rete. I nodi del network". *Quaderni del Laboratorio universitario Volterrano*, XII, 2007-2008
- 2008 Gabbriellini, S. "L'associazionismo e la tradizione: il caso di Volterra." *Quaderni del Laboratorio universitario Volterrano*, XI
- 2007 Gabbriellini S. "Il mercato delle flessibilità: il caso italiano", *Argomenti Umani*, vol.11
- 2003 Gabbriellini S. "Il ruolo dell'ipertesto". In Proceedings of the Conference "Narrare il quotidiano", Università di Firenze

TALKS IN CONFERENCES AND WORKSHOPS

- 2016 "Complex Contagions in Ethnically Diverse Non-western Societies: Explaining Diffusion Dynamics among Indian and Kenyan Potters", DIFFCERAM Workshop, Université Sorbonne IV, Paris (Invited Talk)
- 2016 "Organizational Network Analysis and Agent-Based Modeling", FabNet Seminar Series, Department of University of Turin (Invited Talk)

- 2015 Chattoe Brown, E and Gabbriellini, S., "History, Histories and Book Trade Networks: An Exploratory Agent-Based Model", in Hinks, J (Ed.) *Historical Networks in the Book Trade*, Pickering & Chatto, London
- 2014 Gabbriellini, S. "Status and participation in on-line tasks group", in Manzo, G. (Ed.), *Analytical Sociology. Norms, Actions and Networks*. Wiley LTD
- 2007 Gabbriellini S. "Il mercato delle flessibilità: il caso italiano", in Toscano M.A. (Ed.), *Homo instabilis*, Jaca Book/Grandevetro, Pisa
- 2007 Gabbriellini S. "Analisi delle reti sociali con R: il pacchetto SNA", in Salvini A. (ed.), *Analisi delle reti sociali: teorie, metodi, applicazioni*, Franco Angeli

CONFERENCE PROCEEDINGS PAPERS

- 2016 Gabbriellini S. and Santini F., "From Arguments and Reviewers to their Simulation: Reproducing a Case-Study", *International Conference on Agents and Artificial Intelligence (ICAART16)* - in press
- 2015 Gabbriellini S. and Santini F., "A Micro Study on the Evolution of Arguments in Amazon.com's Reviews", in Qingliang, Torroni, Villata, Hsu and Ormicini: *PRIMA 2015: Principles and Practice of Multi-Agent Systems - 18th International Conference*, Bertinoro, Italy, October 26-30, 2015, Proceedings. *Lecture Notes in Computer Science 9387*, Springer
- 2013 Gabbriellini S. and Torroni P. "A new framework for ABMs based on argumentative reasoning". In Kaminski B. and Koloch G. (eds.) *Advances in Social Simulation. Proceedings of the 9th Conference of the European Social Simulation Association*, AISC Series 229, Springer, pp. 25-36
- 2013 Gabbriellini S. and Torroni P. "Abstract argumentation for agent-based social simulations". In Proceedings of the 10th International Workshop on Argumentation in Multi-Agent Systems (ArgMAS 2013), Saint Paul, Minnesota, US, May 6-10
- 2013 Gabbriellini S. and Torroni P. "MS Dialogues: Persuading and getting persuaded. A model of social network debates that reconciles arguments and trust". In Proceedings of the 10th International Workshop on Argumentation in Multi-Agent Systems (ArgMAS 2013), Saint Paul, Minnesota, US, May 6-10
- 2013 Gabbriellini S. and Torroni P. "NetArg: an agent-based social simulator with argumentative agents" (demonstration). In Proceedings of the 12th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2013), Saint Paul, Minnesota, US, May 6-10, IFAAMAS
- 2013 Gabbriellini S. and Torroni P. "Arguments in social networks" (extended abstract). In Proceedings of the 12th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS-2013), Saint Paul, Minnesota, US, May 6-10. IFAAMAS

- 2016 "An agent-based model of online communication". GECS Seminar Series, University of Brescia. (Invited Talk)
- 2015 Principles and Practice of Multi-Agent Systems (PRIMA 2015) Conference, University of Bologna, Bertinoro, Italy (in collaboration with Francesco Santini)
- 2015 "An agent-based model of online communication". Seminar Series, Institute for Analytical Sociology (IAS), Norrköping, Sweden. (Invited talk)
- 2014 7th International Network of Analytical Sociologists (INAS) Conference, The University of Mannheim, Schloss, Mannheim, Germany (in collaboration with Gianluca Manzo)
- 2013 6th International Network of Analytical Sociologists (INAS) Conference, Westmanska Palatset, Stockholm, Sweden (in collaboration with Filippo Barbera)
- 2013 International Conference on Autonomous Agents and Multi Agent Systems (AAMAS 2013), Saint Paul, Minnesota, US, May 6-10, IFAAMAS (in collaboration with Paolo Torrioni)
- 2013 9th Conference of the European Social Simulation Association (ESSA), Warsaw School of Economics, Warsaw, Poland
- 2012 1st International Conference on Agreement Technologies (AT 2012), Centre for Advanced Academic Studies, Dubrovnik, Croatia
- 2012 3rd International Conference on Computational Sustainability (CompSust'12), Biocenter, University of Copenhagen
- 2011 1st Conference of the European Network of Analytical Sociology (ENAS), Sorbonne University, Paris
- 2010 Advancement in Social Network Analysis (ASNA 2010), ETH, University of Zurich
- 2009 1st International Workshop of Network Science - NetSci 09 / NetHum, Istituto Veneto di Scienze Lettere ed Arte, Venezia
- 2007 Advancement in Social Network Analysis (ASNA 2007), ETH, University of Zurich
- 2007 "Esplorare la coesione sociale: teorie, ipotesi, modelli, tecniche di analisi dei dati", Methodology Section of the Associazione Italiana Sociologia (AIS) Faculty of Sociology, University of Trento
- 2007 Italo-american conference: "Uncertainty and Insecurity in the New Age", William Paterson University, New Jersey
- 2007 International Sunbelt Social Network Conference SUNBELT XXVII, INSNA, Corfu
- 2007 GOR07 - General online research. Universität Leipzig, Leipzig

- 2007 "L'analisi delle reti sociali nella ricerca sociale italiana", Department of Social Sciences, University of Pisa
- 2004 RC33 - Sixth International Conference on Logic and Methodology, University of Amsterdam, Amsterdam
- 2003 Forum AIS Giovani Ricercatori, Department of Sociology "Federico II", University of Naples

MINOR COMMITMENTS

For Journals: acted as reviewer for American Sociological Review, Journal of Artificial Societies and Social Simulations, Mind & Society, Policy & Internet, Journal of Universal Computer Science, Complexity

For Conferences: PC Member for BigScholar 2014 and BigScholar 2015, Sub-Reviewer for AAAI'15

CURRENT PROJECTS

0/ I am collaborating with Flaminio Squazzoni, Francesco Menoncin, Rosella Levaggi on a paper that explores the consequences of network structures on tax compliance.

1/ I am collaborating with Edmund Chattoe-Brown (University of Leicester) on a paper that replicates Hummon's model of "Utility and dynamic in social networks", Social Networks, 22, (2000). Our aim is to discuss the applicability of agent-based modeling to problems in social network analysis as an alternative to statistical approaches, like Exponential Random Graph Models. Tentative title of the paper is "The Potential of Agent Based Modeling for Social Network Analysis".

2/ I am collaborating with Paolo Torroni (DISI, University of Bologna), Daniela Loreti (DISI, University of Bologna) and Hugo Mercier () on developing a new framework for ABM based on argumentative agents, i.e. agents that are able to discuss and exchange opinion through. We will present our recent findings at the XIX ISA World Congress of Sociology in Toronto, Canada.

2/ On a similar front, I am collaborating with Francesco Santini (Dept. of Mathematics and Informatics, University of Perugia) on a framework to apply abstract argumentation (a new branch of Artificial Intelligence that uses a network like approach to Computational Argumentation) to online Amazon reviews.

2/ Since the work on argumentative agents raised the question of how "trust" develops and is granted within a discussion, I focused on Convisier's axiomatic model of trust ("Toward a theory of interpersonal trust", The Pacific Sociological Review, 1973, 16:3), trying to convert that framework into an ABM. This work is in a very early stage.

Pisa 5/8/2013
11/11