

GIORGIO TRIULZI

Associate Professor | Management Area

Joined the School in 2018

ACADEMIC BACKGROUND

2009 - 2015	Ph.D. in Economics and Policy Studies of Technological Change UNU-MERIT and Maastricht University.
2007 – 2008	EU Erasmus Visiting Master Student Program, Eindhoven University of Technology, The Netherlands.
2006 - 2009	Master of Science in Economics of International Markets and New Technologies, Bocconi University.
2007 - 2008	EU Erasmus Visiting Bachelor Student Program, University Louis Pasteur, Strasbourg, France.
2003-2006	Bachelor of Science in Economics of International Markets and New Technologies, Bocconi University.

TEACHING EXPERIENCE

Courses Taught in Recent Years

Graduate

Business, Technology, Innovation and Diffusion – Universidad de los Andes, School of Management.

Laboratory for Sustainability - Universidad de los Andes, School of Management.

Introduction to Applied Statistics - Singapore University of Technology and Design.

Undergraduate

Strategic Management of Technological Innovation – Universidad de los Andes, School of Management.

Entrepreneurship and Innovation - Universidad de los Andes, School of Management.

Management of Public Goods – Universidad de los Andes, School of Management.

Innovation in Economics and Business – Maastricht University, School of Economics and Business.

International Economics – Maastricht University, School of Economics and Business.

Microeconomics – Maastricht University, School of Economics and Business.

Principle of Economics – Maastricht University, School of Economics and Business.

Banking – Maastricht University, School of Economics and Business.

Development Economics – Maastricht University, School of Economics and Business.

ACADEMIC ACTIVITIES

2022 – to date Director PhD Programme in Management. UASM. Bogotá, Colombia.

2022 – to date	Associate Professor. UASM. Bogotá, Colombia.
2018 – 2022	Assistant Professor. UASM. Bogotá, Colombia.
2017	Kaufmann Teaching Certificate Program, MIT, Cambridge, Massachusetts, United States.
2016	Co-supervisor Visiting Research Student, MIT-IDSS, Cambridge, Massachusetts, United States.
2015 - 2017	Postdoctoral Associate, Institute for Data, Systems, and Society, Massachusetts Institute of Technology.
2015	Course Coordinator and Instructor, Singapore University of Technology and Design, Singapore.
2013 - 2014	Lecturer, School of Business and Economics, Maastricht University, Maastricht, Netherlands.

Invited Talks

2022	Inter-American Development Bank, Competitiveness, Technology and Innovation Division, Brown Lunch Seminar Series. “Latin American Coding Bootcamps and In-field Employment: Analysis based on LinkedIn profiles of 1,000 alumni”. April 27, 2022.
2022	Inter-American Development Bank, Competitiveness, Technology and Innovation Division, Brown Lunch Seminar Series. “Technological Improvement Rate Predictions for all Technologies”. March 16, 2022.
2022	The Brown Bag Seminar Series at Universidad de los Andes School of Management «Patent data mining and Monte-Carlo Cross-Validation. An application to technology performance forecasting».
2019	(Forthcoming) Workshop “Tracking innovation trajectories in the complex economy”. Organizers: University of Turin, Technical University of Turin and Institute for New Economic Thinking.
2019	XII Conference on Frontier Research in Applied Economics. Organizer: Research Group on Economic Modeling and Quantitative Methods, Universidad Nacional de Colombia, Department of Economics, Bogotá, Colombia.
2018	Workshop on Innovation, Industrial Dynamics and Industrial Policy. Organizer: Universidad Jorge Tadeo Lozano, Department of Economics, Bogotá, Colombia.
2017	Workshop “Collective Learning and Economic Geography”. Organizer: Cesar Hidalgo, MIT-Media Lab, Cambridge, US.
2016	Seminar at Scalable Cooperation Group. Organizer: Iyad Rahwan, MIT-Media Lab, Cambridge, US.

Conferences

2021	International Joseph A. Schumpeter Society Conference, Rome, Italy.
2019	European Meeting on Applied Evolutionary Economics, SPRU, Brighton, UK.
2018	DRUID Society Conference, Copenhagen Business School.

- 2017 Workshop on Economics of Innovation, Complexity and Knowledge, Collegio Carlo Alberto, Turin, Italy.
- 2016 Micro Evidences on Innovation and Development Conference, Higher School of Economics, Moscow, Russia.
- 2016 Global Tech-Mining Conference, Technical University of Valencia, Spain.
- 2016 International Joseph A. Schumpeter Society Conference, Montreal, Canada.
- 2016 Modeling and Visualizing Science and Technology Developments Conference, National Academy of Sciences, Washington D.C., U.S.A.
- 2015 Conference on Complex Systems, Arizona State University, U.S.A.
- 2015 International Asia-Pacific Innovation Conference, Zhejiang University, Hangzhou, China.
- 2015 European Meeting on Applied Evolutionary Economics, Maastricht University School of Business and Economics and MERIT, The Netherlands.
- 2014 New England Complex Systems Institute Summer Course in Complexity, NECSI, Cambridge, Massachusetts, U.S.A.
- 2014 International Joseph A. Schumpeter Society Conference, Friedrich Schiller University, Jena, Germany.
- 2013 International Asia-Pacific Innovation Conference, National Taiwan University, Taipei.
- European Meeting on Applied Evolutionary Economics, SKEMA Business School, Nice, France.
- 2013 Sunbelt Social Networks Conference of the International Network for Social Network Analysis, University of Hamburg, Germany.
- 2011 Globelics Conference, Buenos Aires, Argentina.
- Dynamics of Institutions and Markets in Europe Conference, Maastricht University School of Business and Economics and MERIT, The Netherlands.
- 2010 Advances in Agent-Based Computational Economics, University of Vienna, Austria.
- International Symposium on Agent-Based Modeling, University of Bielefeld, Germany.
- 2009 European Meeting on Applied Evolutionary Economics, Friedrich Schiller University, Jena, Germany.
- Conference of the Annual European Association for Evolutionary Political Economy, University of Amsterdam, The Netherlands.

OTHER PROFESSIONAL ACTIVITIES

Consultancies

- 2020 – 2021 External consultant between 2020 and 2021 for the Inter-American Development Bank for a project to study the effectiveness of Latin-American coding bootcamps.
- 2020 – 2021 Part of team that consulted Ecopetrol (largest Colombian firm) while at Universidad

de los Andes in 2020-2021 on the definition of their new Science, Technology and Innovation Strategy.

2017 DRAPER Laboratories, Cambridge, Massachusetts. Part of a team that estimated the performance improvement rate for a few technologies using patent data and identified key patents in those Research Areas.

RESEARCH

Research Areas

- Economics and management of innovation
- Empirical analysis of technological evolution
- Catching-up by latecomer firms and countries
- Productivity and growth
- Science, Technology and Innovation Policy

Research Projects

2018 – to date Systematic empirical analysis of the rate and direction of technological change to identify potential high-growth and diversification pathways.

PUBLICATIONS

Articles in Academic Journals

- 2022 “Tracing the emergence of new technology: a comparative analysis of five technological domains. *Technological Forecasting and Social Change*.” Park, I., Triulzi, G., Magee, C. L. Volume 184, November 2022, 122014.
- 2021 “Technological improvement rate predictions for all technologies: Use of patent data and an extended domain description.” Singh, A., Triulzi, G., & Magee, C. L. *Research Policy*, 50(9), 104294.
- 2020 “Estimating technology performance improvement rates by mining patent data. *Technological Forecasting and Social Change*.” Triulzi, G.***, Alstott, J., & Magee, C. L., 158, 120100.
- 2020 “Functional performance improvement data and patent sets for 30 technology domains with measurements of patent centrality and estimations of the improvement rate.” Triulzi, G., & Magee, C. L. *Data in Brief*, 32, 106257.
- 2019 “Quantification of technological progress in greenhouse gas (GHG) capture and mitigation using patent data”. Sharifzadeh M., Triulzi G., Magee C. *Energy and Environmental Science*. Forthcoming (paper accepted).
- 2019 “Overlay technology space map for analyzing design knowledge base of a technology domain: the case of hybrid electric vehicles”. Song B., Yan B., Triulzi G., Alstott J., Luo J. *Research in Engineering Design*. Vol 30. Pp 405 – 423.
- 2018 “Cyclic dependence, vertical integration, and innovation: The case of Japanese electronics sector in the 1990s”. Luo J., Triulzi G. *Technological Forecasting and social change*. Vol 132. Pp 46 – 55. doi.org/10.1016/j.techfore.2017.12.009.

- 2018 “Is There a Moore’s Law for 3D Printing?”. Benson C., Triulzi G., Magee C. 3D Printing and Additive Manufacturing. Vol 5. pp 53 – 62. doi.org/10.1089/3dp.2017.0041.
- 2017 “Inventors Explorations Across Technology Domains”. Alstott J, Triulzi G., Yan B., Luo J. ., Design Science. Vol 3.
- 2017 “Mapping Technology Space by Normalizing Patent Networks”. Alstott J, Triulzi G., Yan B., Luo J., Yan B., Triulzi G., Alstott J. Scientometrics. Vol 110. Pp 443 – 479.
- 2014 “R&D and Knowledge Dynamics in University-Industry Relationships in Biotech and Pharmaceuticals: an Agent-Based Model”. Triulzi G, Scholz R., Pyka A. International Journal of Biotechnology, Volume 13, Issue 1-3, pp. 137-179.
- 2012 “Knowledge flows - Analyzing the core literature of innovation, entrepreneurship and science and technology studies”. Bhupatiraju S., Nomaler O., Triulzi G., Verspagen B. Research Policy. Vol 41. Pp 1205-1218.
- 2011 “Learning-by-Modeling: Insights from an Agent-Based Model of University-Industry Relationships” Triulzi G., Pyka A. Cybernetics and Systems. Vol 42. Pages 484-501.

Book Chapters

- In press “Innovación y Cadenas de Valor. Transformación, Estrategias, Retos y Oportunidades.” Triulzi G. (2021). In press.
- 2019 Technological change in fuel cell technologies, in “Design and Operation of Solid Oxide Fuel Cells”, edited by Mahdi Sharifzadeh Triulzi, G.*, Sharifzadeh, M. (ISBN 978- 0-12-815253-9), pp. 3-41, Elsevier.

PARTICIPATION IN BOARDS, COMMITTEES AND ASSOCIATIONS

- 2022 – to date Member. Accreditation Committee EQUIS, Universidad de los Andes, School of Management.
- 2019 - 2020 Member. Accreditation Committee AACSB-AMBAS, Universidad de los Andes, School of Management.
- 2018 – to date Member. Exchange Committee, Universidad de los Andes, School of Management.

SCHOLARSHIPS, GRANTS AND ACADEMIC DISTINCTIONS

- 2022 Fondo semilla del Comité de Investigación de la Facultad de Administración de la Universidad de los Andes 2021.
- 2021 Fondo semilla del Comité de Investigación de la Facultad de Administración de la Universidad de los Andes 2021.
- 2021 Fondo semilla de la Oficina de Proyectos de la Facultad de Administración de la Universidad de los Andes 2021.
- 2019 – 2022 Fondo de Apoyo para Profesores Asistentes (FAPA) – Universidad de los Andes Project title: “Systematic empirical analysis of the rate and direction

of technological change to identify potential high-growth and diversification pathways” 2019-2022, equivalent to 32.000 USD.

- 2019 – 2022 Universidad de los Andes Vice-Presidency for Research Postdoctoral funding 2019-2022, equivalent to 65.000 USD.
- 2019 – 2021 MIT International Science and Technology Initiatives (MISTI) Project title: “Studying the Evolution of the Backbone of Technology Development” 2019-2021, 25.000 USD.
- 2015 Best Poster Award, Conference on Complex Systems.
- 2010 Best Symposium Paper Award, International Symposium on Agent-Based Modeling.
- 2009 Outstanding PhD Paper Award, European Meeting on Applied Evolutionary Economics.
- 2009 – 2010 United Nations PhD Scholarship.