

Luis Guillermo Natera Orozco

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EDUCATION

- Ph.D. Network Science, Central European University, Budapest, 2020 (expected)
Dissertation: *Multilayer Urban Networks*
Advisor: Federico Battiston
Co-Advisor: Michael Szell
- M.S. Communication of Science and Culture, ITESO, Tlaquepaque. Mexico, 2015
Dissertation: *La construcción de comunidades en red sobre conocimiento urbano en el marco del crecimiento urbano: Los blogs de espacio público*
Advisor: Eduardo Quijano
Committee: Rossana Reguillo, Francisco Morfín
- B.Arch. Architecture, ITESO, Tlaquepaque. Mexico, 2010

ACADEMIC AFFILIATIONS

- 2016–17 Executive Coordinator Signa_Lab, Department of Sociocultural Studies, ITESO, Tlaquepaque. Mexico
- 2015 Visiting Student, Center for Civic Media, Media Lab, Massachusetts Institute of Technology, Cambridge, MA. USA
- 2008 Visiting Student, Universidad de Valparaíso, Valparaíso, Chile.

RESEARCH AND TEACHING INTERESTS

Network science
Urban planning and mobility
Big data for social good
Data science and data visualization

PUBLICATIONS

Journal Article Preprints

- 2019 Natera Orozco, L. G., Battiston, F., Iniguez, G., Szell, M. “Data-driven strategies for optimal bicycle network growth” *ArXiv ID: 1907.07080*.

Peer-Reviewed Book Chapters

- 2019 Natera Orozco, L. G. “Un cambio de la comunicación gubernamental y política. De los medios de comunicación a las redes sociales.” *Informe Anual Q Medios 2018*, edited by Bernal, G. Jalisco, Mexico: ITESO.
- 2018 Natera Orozco, L. G., Reguillo, R. “Comunicación y cambio social: participación política e internet en Jalisco” *Enciclopedia Jaliscience de la Comunicación.*, edited by Orozco, G., Reguillo, R. Jalisco, Mexico: Universidad de Guadalajara.

Reviews and Other Articles

- 2016 Natera Orozco, L. G., (as Signa_Lab) “Battle of the hashtags: Mapping the online conversation surrounding Mexico’s gas price” *Global Voices*.

Proceedings, Reports, and Working Papers

- 2019 Natera Orozco, L. G., Deritei, D., Vancso, A., Vasarhelyi, O. “Quantifying life quality as walkability on urban networks” In: Cherifi H., Gaito S., Mendes J., Moro E., Rocha L. (eds) *Complex Networks and Their Applications VIII. COMPLEX NETWORKS 2019. Studies in Computational Intelligence*, 2019, pp. 905–918.
- 2014 Natera Orozco, L. G. “Comunicación, ciudad e internet: flujos de información urbana en entornos digitales” VI Seminario Internacional de Investigación en Urbanismo. Bogota, Colombia.

Manuscripts in Preparation and Development

- 2020 Natera Orozco, L. G., Battiston, F., Iñiguez, G., Szell, M. “Cities classification by their multiplex infrastructure network” Target: *Transport Findings*
- 2020 Natera Orozco, L. G., Battiston, F., Iñiguez, G., Szell, M. “Dynamics of bicycle sharing systems, an analysis of 120M bike trips” Target: *Environment and Planning B: Urban Analytics and City Science*

INVITED TALKS

- 2019 Data Science MeetUp. Timisoara, Romania.
- 2019 FabLab, West University of Timisoara. Timisoara, Romania.
- 2019 4D Cities, Multi-Actor Systems Department, TU Delft. Delft, Netherlands.
- 2019 Mobile and Social Computing Lab, Fondazione Bruno Kessler. Trento, Italy.
- 2019 ANET-Talks, ANET Lab, Hungarian Academy of Science. Budapest, Hungary.
- 2018 Signa_Lab, ITESO. Tlaquepaque, Mexico.
- 2015 Encuentro de Urbanismo Alternativo, Centro Cultural de España en México. Mexico City, Mexico.
- 2015 II Simposio de ciudades y territorios incluyentes “Derecho a la Ciudad”, Universidad Autónoma de Yucatán. Merida, Mexico.

CONFERENCE ACTIVITY

Conference Presentations

Presenting author *italicized*, if other.

- 2019 Natera Orozco, L. G., Deritei, D., Vancso, A., Vasarhelyi, O. “Quantifying life quality as walkability on urban networks” VIII Conference in Complex Networks and their Applications. Lisbon, Portugal. December 12-14.
- 2019 Natera Orozco, L. G., Battiston, F., Iñiguez González, G., and Szell, M. “Multiplex urban fingerprints for bicycle infrastructure planning” Cycling Research Board Meeting. Delft, Netherlands. October 31-1 November.
- 2019 Natera Orozco, L. G., Battiston, F., Iñiguez González, G., and Szell, M. “Multiplex urban fingerprints for bicycle infrastructure planning” 2019 NetSci. Burlington, Vermont. May 27-31.
- 2018 Natera Orozco, L. G., Battiston, F., Szell, M. “Characterizing cities from their multiplex infrastructure patterns” SICC Workshop ComplexCity@PoliTo. Turin, Italy.
- 2013 Natera Orozco, L. G. “Quiosco Libre, reading network in the public space” Future of Places. Stockholm, Sweden.

Posters

- 2018 Natera, L. “Budapest. Multilayer urban network” State of the Map. Milan, Italy.
- 2017 Natera, L., Ábrego, V. “The evolution of twitter during the US elections” Data Stories. Budapest, Hungary.

FELLOWSHIPS, GRANTS, AND AWARDS

- 2019 Best lighting talk award. International Conference in Complex Networks and their Applications.
- 2019 Registration grant. International Conference in Complex Networks and their Applications
- 2019 Ph.D. conference travel grant. CEU Budapest Foundation
- 2019 Registration grant. NetSci
- 2018, 19 Travel grant. Department of Network and Data Science, Central European University
- 2015 Academic Stay at MIT. Mexican National Council of Science and Technology
- 2013 Master Studies Grant. Mexican National Council of Science and Technology

TEACHING EXPERIENCE

ITESO

- 2020 Teaching Assistant, Scientific Python

- 2019 Teaching Assistant, Statistical Methods in Network Science
- 2019 Network Science (Summer 2019) Invited lecturer, co-taught with Diego Arredondo (ITESO)
- 2017 Network Science (Summer 2017) Co-taught with Emma Towlson (Northeastern University), Sean P. Cornelius (Northeastern University), and Ricardo Zavala (ITESO)
- 2015–17 Communication, Culture and Society (Spring 2016, 2017)
- 2015–16 Social Systems Theory (Fall 2015, 2016)

RESEARCH EXPERIENCE

- 2015–17 Researcher, Anillo Primavera.
Principal Investigator: Sandra Valdes.
- 2016 Researcher, Online harassment of journalists and activists in Mexico, Jigsaw (formerly Google Ideas) and Global Voices.
Principal Investigator: Ellery Biddle.
- 2012 Researcher, Public Transportation in Guadalajara.
Principal Investigator: Mario Silva.

ACADEMIC VISITS

- 2015 Center for Civic Media, MIT Media Lab, Boston, USA, Jan - Jun

SERVICE

Journal Peer Review

Scientific Data

Service to Department

Ph.D. program representative, Central European University, DNDS, 2019-20

Co-organizer Data Stories visualization exhibition, Central European University, DNDS, 2018-19

PROFESSIONAL AFFILIATIONS

Network Science Society

Python Software Foundation

SICC Italian Society for Chaos and Complexity

PROFESSIONAL EXPERIENCE

- 2020 Latin American Capital, Senior Data Scientist Consultant. Guadalajara, Mexico.

- 2019 Maven7US, City Data Scientist. Budapest, Hungary.
- 2015–17 Mesura, Networks and Data Specialist. Guadalajara, Mexico.
- 2014 Socialinks, Networks Consultant. Guadalajara, Mexico.
- 2014 Institute for Mobility and Transportation of the State of Jalisco, Mobility Analyst. Zapopan, Mexico.

SKILLS AND METHODS

Statistical and Computational Methods

Network science methods

Programming, data wrangling and visualization: Python

Web: basic HTML/Javascript, Wordpress, Jekyll

Network visualization: Gephi, Cytoscape

Version control: Git + GitHub

Other: \LaTeX , Adobe CS, CAD, QGIS, Blender

Languages

Spanish Native

English Professional proficiency

Updated February 2020