# Giovanni Luca Ciampaglia (Joh-vah-nee Loo-kah Chahm-pa-yaa)

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Github: github.com/glciampaglia (additional code samples available upon request)

LinkedIn: linkedin.com/in/giovanni-luca-ciampaglia

Scholar: https://scholar.google.com/citations?user=ayouGpcAAAAJ

Homepage: www.glciampaglia.com

# **Current Affiliation**

Department of Computer Science and Engineering University of South Florida

# **Research Interests**

Data Science • Computational Social Science • Network Science

### Education

Ph.D. in Informatics\*

Università della Svizzera Italiana, Lugano, Switzerland

SUPERVISORS: Luca Gambardella (IDSIA), Alberto Vancheri (SUPSI), Paolo Giordano (TU Wien)

\* U.S. equivalent degree: Computer Science.

2006 Laurea in Computer Science (M.Sc. equivalent)

Sapienza University, Rome, Italy Supervisor: Brunello Tirozzi

# Research

2018- University of South Florida (Tampa, FL, USA)

present Assistant Professor

College of Engineering, Department of Computer Science and Engineering

2015-2018 Indiana University (Bloomington, IN, USA)

Assistant Research Scientist

Indiana University Network Science Institute

2013-2015 Indiana University (Bloomington, IN, USA)

Postdoctoral fellow

Center for Complex Networks and Systems Research (Prof. Filippo Menczer)

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Jul.-Aug. Wikimedia Foundation, Inc. (San Francisco, CA, USA)

2011 Research intern

Wikimedia Summer of Research, Community Department (Dr. Diederik Van Liere)

2010-2011 Swiss Federal Institute of Technology (Zürich, Switzerland)

Research associate

Chair of Sociology, in particular Modeling and Simulation (Prof. Dirk Helbing)

**Teaching** 

2019 University of South Florida (Tampa, FL, USA)

College of Engineering

COP 2513 Intro to Object Oriented Programming for IT

2018- University of South Florida (Tampa, FL, USA)

present College of Engineering

CIS4930/6930 Special Topics "Social Media Mining"

2015 Indiana University (Bloomington, IN, USA)

School of Informatics and Computing

I690 Mathematical Modeling of Complex Systems: Introduction to Game Theory (guest lecturer)

2013 Indiana University (Bloomington, IN, USA)

School of Informatics and Computing

I690 Mathematical Modeling of Complex Systems: Agent-based models (guest lecturer)

Swiss Federal Institute of Technology (Zürich, Switzerland)

Department of Humanities, Social and Political Sciences

Lectures with Computer Exercises: Modelling and Simulating Social Systems with MATLAB

2007-2008 Università della Svizzera Italiana (Lugano, Switzerland)

**Faculty of Informatics** 

Artificial Intelligence and Knowledge Management (T.A. for Prof. Luca Maria Gambardella)

Computer Networking (T.A. for Prof. Antonio Carzaniga)

Industry

2012-2013 Wikimedia Foundation, Inc. (San Francisco, CA, USA)

Research Analyst

Technology Department, (Dr. Dario Taraborelli)

**Publications** 

JOURNAL ARTICLES

Bhadani, Saumya, Shun Yamaya, Alessandro Flammini, Filippo Menczer, Giovanni Luca Ciampaglia, and Brendan Nyhan. "Political audience diversity and algorithmic bias in news recommendation". In: *Nature Human Behavior* (2020). Under Review.

- Saebi, Mandana, Giovanni Luca Ciampaglia, Lance M. Kaplan, and Nitesh V. Chawla. "HONEM: Learning Embedding for Higher Order Networks". In: *Big Data* 8.4 (Aug. 17, 2020), pp. 255–269. DOI: 10.1089/big.2019.0169. arXiv: 1908.05387 [cs.LG].
- Sasahara, Kazutoshi, Wen Chen, Hao Peng, Giovanni Luca Ciampaglia, Alessandro Flammini, and Filippo Menczer. "Social influence and unfollowing accelerate the emergence of echo chambers". In: *Journal of Computational Social Science* (Sept. 11, 2020), pp. 2432–2725. DOI: 10.1007/s42001-020-00084-7. arXiv: 1905.03919 [cs.CY].
- Copeland, Lauren, Giovanni Luca Ciampaglia, and Li Zhao. "Fashion Informatics and the Network of Fashion Knockoffs". In: First Monday 24.12 (Dec. 2, 2019). DOI: 10.5210/fm.v24i12.9703.
- Nematzadeh, Azadeh, Giovanni Luca Ciampaglia, Yong-Yeol Ahn, and Alessandro Flammini. "Information Overload in Group Communication: From Conversation to Cacophony in the Twitch Chat". In: *Royal Society Open Science* 6 (2019), p. 191412. DOI: 10.1098/rsos.191412.
- Ciampaglia, Giovanni Luca. "Fighting fake news: a role for computational social science in the fight against digital misinformation". In: *Journal of Computational Social Science* 1.1 (Jan. 2018), pp. 147–153. ISSN: 2432-2725. DOI: 10.1007/s42001-017-0005-6.
- Ciampaglia, Giovanni Luca, Alexios Mantzarlis, Gregory Maus, and Filippo Menczer. "Research Challenges of Digital Misinformation: Toward a Trustworthy Web". In: *AI Magazine* 39.1 (Mar. 2018), pp. 65–74. DOI: 10.1609/aimag.v39i1.2783.
- Ciampaglia, Giovanni Luca, Azadeh Nematzadeh, Filippo Menczer, and Alessandro Flammini. "How algorithmic popularity bias hinders or promotes quality". In: *Scientific Reports* 8.1 (2018), pp. 15951–. ISSN: 2045-2322. URL: https://doi.org/10.1038/s41598-018-34203-2.
- Shao, Chengcheng, Giovanni Luca Ciampaglia, Onur Varol, Kaicheng Yang, Alessandro Flammini, and Filippo Menczer. "The spread of low-credibility content by social bots". In: *Nature Communications* 9.1 (Nov. 2018), pp. 4787–. ISSN: 2041-1723. DOI: 10.1038/s41467-018-06930-7.
- Shao, Chengcheng, Pik-Mai Hui, Lei Wang, Xinwen Jiang, Alessandro Flammini, Filippo Menczer, and Giovanni Luca Ciampaglia. "Anatomy of an online misinformation network". In: *PLOS ONE* 13.4 (Apr. 2018), pp. 1–23. DOI: 10.1371/journal.pone.0196087.
- Tambuscio, Marcella, Diego F. M. Oliveira, Giovanni Luca Ciampaglia, and Giancarlo Ruffo. "Network segregation in a model of misinformation and fact-checking". In: *Journal of Computational Social Science* 1.2 (Sept. 2018), pp. 261–275. ISSN: 2432-2725. DOI: 10.1007/s42001-018-0018-9
- An, Jisun, Giovanni Luca Ciampaglia, Nir Grinberg, Kenneth Joseph, Alexios Mantzarlis, Gregory Maus, Filippo Menczer, Nicholas Proferes, and Brooke Foucault Welles. "Reports of the Workshops Held at the 2017 International AAAI Conference on Web and Social Media". In: *AI Magazine* 38.4 (2017). DOI: 10.1609/aimag.v38i4.2772.
- Davis, Clayton A., Giovanni Luca Ciampaglia, Luca Maria Aiello, Keychul Chung, Michael D. Conover, Emilio Ferrara, Alessandro Flammini, Geoffrey C. Fox, Xiaoming Gao, Bruno Gonçalves, Przemyslaw A. Grabowicz, Kibeom Hong, Pik-Mai Hui, Scott McCaulay, Karissa McKelvey, Mark R. Meiss, Snehal Patil, Chathuri Peli Kankanamalage, Valentin Pentchev, Judy Qiu, Jacob Ratkiewicz, Alex Rudnick, Benjamin Serrette, Prashant Shiralkar, Onur Varol, Lilian Weng, Tak-Lon Wu, Andrew J. Younge, and Filippo Menczer. "OSoMe: the IUNI observatory on social media". In: *PeerJ Computer Science* 2 (Oct. 2016), e87. ISSN: 2376-5992. DOI: 10.7717/peerj-cs.87.
- Ciampaglia, Giovanni Luca, Alessandro Flammini, and Filippo Menczer. "The production of information in the attention economy". In: *Scientific Reports* 5 (2015), p. 9452. DOI: 10.1038/srep09452.
- Ciampaglia, Giovanni Luca, Prashant Shiralkar, Luis M. Rocha, Johan Bollen, Filippo Menczer, and Alessandro Flammini. "Computational Fact Checking from Knowledge Networks". In: *PLOS ONE* 10.6 (June 2015), pp. 1–13. DOI: 10.1371/journal.pone.0128193.

- Ciampaglia, Giovanni Luca, Emilio Ferrara, and Alessandro Flammini. "Collective behaviors and networks". In: *EPJ Data Science* 3.1 (Dec. 2014), p. 37. ISSN: 2193-1127. DOI: 10.1140/epjds/s13688-014-0037-6.
- Ciampaglia, Giovanni Luca, Sergi Lozano, and Dirk Helbing. "Power and Fairness in a Generalized Ultimatum Game". In: *PLOS ONE* 9.6 (June 2014), pp. 1–9. DOI: 10 . 1371 / journal . pone . 0099039.
- Ciampaglia, Giovanni Luca. "A Framework for the Calibration of Social Simulation Models". In: *Advs Complex Sys.* 16 (2013), p. 1350030. DOI: 10.1142/S0219525913500306.

#### PEER-REVIEWED CONFERENCE PROCEEDINGS CONTRIBUTIONS

- Ciampaglia, Giovanni Luca and John Licato. "Fact-checking, False Narratives, and Argumentation Schemes". In: *Proceedings of the 1<sup>st</sup> International Workshop on Knowledge Graphs for Online Discourse Analysis.* KnOD '21 (Apr. 14, 2021). Collocated with The Web Conference 2021, 19-23 April 2021, Ljubljana, Slovenia.
- Huq, Khandaker Tasnim and Giovanni Luca Ciampaglia. "Characterizing Opinion Dynamics and Group Decision Making in Wikipedia Content Discussions". In: *Companion Proceedings of the Web Conference* 2021. WWW '21. To Appear. 2021. DOI: 10.1145/3442442.3452354.
- Sumpter, Matthew and Giovanni Luca Ciampaglia. "REMOD: Relation Extraction for Modeling Online Discourse". In: *Proceedings of the 1<sup>st</sup> International Workshop on Knowledge Graphs for Online Discourse Analysis.* KnOD '21 (Apr. 14, 2021). Collocated with The Web Conference 2021, 19-23 April 2021, Ljubljana, Slovenia.
- Yamaya, Shun, Saumya Bhadani, Alessandro Flammini, Filippo Menczer, Brendan Nyhan, and Giovanni Luca Ciampaglia. "Political Audience Diversity and News Quality". In: *Proc. of Computation+Journalism*. Northeastern University. Boston, MA, Mar. 20, 2020. URL: https://cj2020.northeastern.edu/files/2020/02/CJ\_2020\_paper\_59.pdf.
- Hui, Pik-Mai, Chengcheng Shao, Alessandro Flammini, Filippo Menczer, and Giovanni Luca Ciampaglia. "The Hoaxy Misinformation and Fact-Checking Diffusion Network". In: Proceedings of the Twelfth International AAAI Conference on Web and Social Media. ICWSM. Stanford, CA: AAAI, 2018, pp. 528-530. URL: https://aaai.org/ocs/index.php/ICWSM/ICWSM18/paper/view/17851.
- Nakandala, Supun, Giovanni Luca Ciampaglia, Norman Makoto Su, and Yong-Yeol Ahn. "Gendered Conversation in a Social Game-Streaming Platform". In: *Proc. of the 11<sup>th</sup> International AAAI Conference on Web and Social Media*. Montréal, Québec, Canada: AAAI, 2017, pp. 162–171. URL: https://www.aaai.org/ocs/index.php/ICWSM/ICWSM17/paper/view/15629.
- Shiralkar, Prashant, Mihai Avram, Giovanni Luca Ciampaglia, Filippo Menczer, and Alessandro Flammini. "RelSifter: Scoring Triples from Type-like Relations—The Samphire Triple Scorer at WSDM Cup 2017". In: WSDM Cup 2017 Notebook Papers, February 10, Cambridge, UK. Ed. by Martin Potthast, Stefan Heindorf, and Hannah Bast. Cambridge, UK: CEUR-WS.org, Feb. 2017. URL: http://www.wsdm-cup-2017.org/proceedings.html.
- Shiralkar, Prashant, Alessandro Flammini, Filippo Menczer, and Giovanni Luca Ciampaglia. "Finding Streams in Knowledge Graphs to Support Fact Checking". In: 2017 IEEE International Conference on Data Mining (ICDM). Extended Version. New Orleans, Louisiana, USA: IEEE, Nov. 2017, pp. 859–864. ISBN: 2374-8486. DOI: 10.1109/ICDM.2017.105. arXiv: 1708.07239 [cs.AI].
- Park, Jaehyuk, Giovanni Luca Ciampaglia, and Emilio Ferrara. "Style in the Age of Instagram: Predicting Success Within the Fashion Industry Using Social Media". In: *Proceedings of the 19<sup>th</sup> ACM Conference on Computer-Supported Cooperative Work & Social Computing.* CSCW '16. San Francisco, California, USA: ACM, 2016, pp. 64–73. ISBN: 978-1-4503-3592-8. DOI: 10.1145/2818048. 2820065.

- Sayyadiharikandeh, Mohsen, Giovanni Luca Ciampaglia, and Alessandro Flammini. "Cross-domain Gender Detection in Twitter". In: *Proceedings of the Workshop on Computational Approaches to Social Modeling (ChASM)*. Seattle, Washington, USA, Sept. 2016.
- Shao, Chengcheng, Giovanni Luca Ciampaglia, Alessandro Flammini, and Filippo Menczer. "Hoaxy: A Platform for Tracking Online Misinformation". In: *Proceedings of the 25<sup>th</sup> International Conference Companion on World Wide Web.* WWW '16 Companion. Montréal, Québec, Canada: International World Wide Web Conferences Steering Committee, 2016, pp. 745–750. ISBN: 978-1-4503-4144-8. DOI: 10.1145/2872518.2890098.
- Ciampaglia, Giovanni Luca and Dario Taraborelli. "MoodBar: Increasing New User Retention in Wikipedia Through Lightweight Socialization". In: *Proceedings of the 18<sup>th</sup> ACM Conference on Computer Supported Cooperative Work & Social Computing*. CSCW '15. Vancouver, BC, Canada: ACM, 2015, pp. 734–742. ISBN: 978-1-4503-2922-4. DOI: 10.1145/2675133.2675181.
- Fulper, R., G. L. Ciampaglia, E. Ferrara, Filippo Menczer, Y. Ahn, A. Flammini, B. Lewis, and K. Rowe. "Misogynistic Language on Twitter and Sexual Violence". In: *Proc. ACM Web Science Workshop on Computational Approaches to Social Modeling (ChASM)*. Bloomington, IN, June 2014. DOI: 10.6084/m9.figshare.1291081.
- Ciampaglia, Giovanni Luca. "A Bounded Confidence Approach to Understand User Participation in Peer Production Systems". In: *Third International Conference on Social Informatics (SocInfo'11)*. Vol. 6984. Lecture Notes in Computer Science. Singapore: Springer Verlang, Oct. 2011, pp. 269–282. DOI: 10.1007/978-3-642-24704-0\_29.
- Ciampaglia, Giovanni Luca and Alberto Vancheri. "Empirical Analysis of User Participation in Online Communities: the Case of Wikipedia". In: Fourth International AAAI Conference on Weblogs and Social Media. Washington, D.C.: AAAI, May 2010, pp. 219–222. URL: https://www.aaai.org/ocs/index.php/ICWSM/ICWSM10/paper/view/1517.
- Taraborelli, D. and G.L. Ciampaglia. "Beyond Notability. Collective Deliberation on Content Inclusion in Wikipedia". In: Fourth IEEE International Conference on Self-Adaptive and Self-Organizing Systems Workshop (SASOW). Budapest, Hungary: IEEE, Sept. 2010, pp. 122–125. DOI: 10.1109/SASOW.2010.26.
- Ciampaglia, Giovanni L. and B. Tirozzi. "Go East: a residential land use model for the periphery of Rome". In: *Proceedings of the iEMSs Fourth Biennial Meeting: International Congress on Environmental Modelling and Software (iEMSs 2008)*. Ed. by Miquel Sànchez-Marrè, Javier Béjar, Joaquim Comas, Andrea E. Rizzoli, and Giorgio Guariso. Barcelona, Catalonia: International Environmental Modelling and Software Society, July 2008, pp. 817–826.
- Rebiha, Rachid and Giovanni Luca Ciampaglia. "An Ant Colony Verification Algorithm". In: *Proc. of Seventh Intl Conf. on Intelligent Systems Design and Applications (ISDA 2007).* Rio De Janeiro, Brazil: IEEE, 2007, pp. 901–906. DOI: 10.1109/ISDA.2007.63.

#### BOOK CHAPTERS

- Ciampaglia, Giovanni Luca. "The Digital Misinformation Pipeline: Proposal for a Research Agenda". In: *Positive Learning in the Age of Information: A blessing or a curse?* Ed. by Olga Zlatkin-Troitschanskaia, Gabriel Wittum, and Andreas Dengel. Wiesbaden, DE: Springer Fachmedien Wiesbaden, 2018, pp. 413–421. ISBN: 978-3-658-19567-0. DOI: 10.1007/978-3-658-19567-0\_25.
- Ciampaglia, Giovanni Luca, Sergi Lozano, and Dirk Helbing. "Anonymous sharing behavior in Web experiments with different balance of power". In: Quality collectives: evolving socio-technical systems to support quality. Ed. by Nigel Gilbert, Maria Xenitidou, Dirk Helbing, Mark Jelasity, Andrzej Nowak, Johan Pouwelse, Camille Roth, Yi-Cheng Zhang, and Alois Zistler. QLectives Working Paper. QLectives, 2014. Chap. 35. URL: http://www.qlectives.eu/quality-collectives-book.

#### Online reports

- Ciampaglia, Giovanni Luca and Filippo Menczer. Misinformation and biases infect social media, both intentionally and accidentally. The Conversation. Nov. 2018. URL: http://theconversation.com/misinformation-and-biases-infect-social-media-both-intentionally-and-accidentally-97148.
- Ciampaglia, Giovanni Luca. Can online gaming ditch its sexist ways? The Conversation. Nov. 2017. URL: https://theconversation.com/can-online-gaming-ditch-its-sexist-ways-74493.
- Ciampaglia, Giovanni Luca and Dario Taraborelli. What MoodBar tells us about registered editors. Wikimedia Foundation inc. July 2012. URL: https://blog.wikimedia.org/2012/07/05/what-moodbar-tells-us-about-new-registered-editors/.
- Ciampaglia, Giovanni Luca, Dario Taraborelli, and Howie Fung. *Research:MoodBar*. Wikimedia Foundation inc. 2012. URL: https://meta.wikimedia.org/wiki/Research:MoodBar.

#### THESES

- Ciampaglia, Giovanni Luca. "User Participation and Community Formation in Peer Production Systems". PhD thesis. University of Lugano, 2012.
- Ciampaglia, Giovanni Luca. "Modello di Crescita Urbana Mediante Automi Cellulari e Sistemi Multi-Agente". MA thesis. Sapienza University of Rome, 2006.

# **Funding**

2019	NATIONAL SCIENCE FOUNDATION. CISE SaTC, PI. \$300,000, awarded.
2018	Craig Newmark Philantropies. Co-PI. \$70,786, awarded.
2017	DEMOCRACY FUND. Prototype fund, Co-PI. \$50,000, awarded.
2016	INDIANA UNIVERSITY. OVPR Collaborative Research and Creative Activities Fund, PI. \$20,000,
	awarded.
2012	Swiss National Science Foundation. Postdoctoral fellowship. \$63,450, awarded.
2011	SINGAPORE MANAGEMENT UNIVERSITY. Travel grant, SocInfo 2011. \$1,358, awarded.

# **Awards**

2012

BEST INTERACTIVE VISUALIZATION KANTAR "Information is Beautiful" Awards.

# Service

2021	BOARD OF TRUSTEES: Conference of Trust and Truth Online.
2020	ACADEMIC LIAISON: Conference for Trust and Truth Online.
2020	SENIOR PC: The Web Conference 2020.
2020	PANEL REVIEWER: National Science Foundation (SaTC-SBE).
2019	EXTERNAL REVIEWER: French National Research Agency (ANR), Dutch Research Council (NWO)
2019	REFEREE: ACM CSUR, Communications Physics, Europhysics Letters, Conference for Truth and
	Trust Online, Europhysics Letters
2018	External Reviewer: Swiss National Science Foundation, Rita Allen Foundation.
2018	PROGRAM CO-CHAIR: WWW 2018 Alternate track on "Journalism, Misinformation, and Fact Check-
	ing".
2017	Program co-chair: SocInfo 2017.
2017	Sponsorship co-chair: NetSci 2017 (amount raised \$36,500).
2017	Associate editor: Journal of Computational Social Science, Springer.
2017	Co-organizer: ICWSM 2017 workshop on Digital Misinformation.
2016	Co-organizer: Open Science for an Open Society, satellite workshop at the Conference on Com-
	plex Systems (2016).
2014-	Co-organizer: Computational Social Science, satellite workshop at the Conference on Complex
present	Systems (2014, 15, 16).
2014	Publicity Chair: ACM Web Science 2014.
2013-2014	GUEST EDITOR: EPJ Data Science.
2013	Co-organizer: Collective Behaviors and Networks, satellite workshop at ECCS'13.
2012-	REVIEWER: Journal of the Royal Society: Interface, CACM, Scientific Reports, ACM TOIT, Net-
present	work Science, Frontiers in ICT, PeerJ Computer Science, CSCW (distinguished reviewer), Entropy,
	EPJ Data Science, Adv. Comp. Sys., JASSS, ACM TOIS, IEEE Internet Computing, IEEE TKDE,
	PLoS ONE, Wikimedia Research Newsletter.
2014-	PC MEMBER: WWW (2017), SNOW (2014, 2016), CompleNet (2016), COOL, CRIMENET (2014),
present	DataWiz (2014), DYAD (2014), HyperText (2015), SocInfo (2014, 2016).