Michael Soprano, PhD

✉ michael.soprano@uniud.it

⬡ Miccighel   🐦 @Miccighel_

ⓘ https://orcid.org/0000-0002-7337-7592

in https://www.linkedin.com/in/michaelsoprano/

🌐 https://michaelsoprano.com/

Education

Nov. 2019 – Jan. 2023	**PhD in Computer Science, Mathematics and Physics**, Cum Laude. 35th cycle, University of Udine, Italy.
Mar. 2015 – Mar. 2018	**Master Degree in Computer Science**, 109/110, University of Udine, Italy.
Oct. 2011 – Mar. 2015	**Bachelor Degree in Web Technologies and Multimedia**, 101/110, University of Udine, Italy.
Sep. 2006 – Jun. 2011	**High Scool Diploma**, Head Technician Industrial Expert - Computer Science Specialization, 77/100, I.S.I.S. R. D'Aronco, Gemona del Friuli, Italy.

Visits

Mar. 2022 – Jul. 2022	**Visiting Student**, Centrum Wiskunde & Informatica, Human-Centered Data Analytics (HCDA) Group. Amsterdam, The Netherlands. Visiting period during PhD studies.

Work Experience

Dec. 2023 - Today	**Postdoctoral Research Fellow**. Department of Mathematics, Computer Science and Physics (DMIF), University of Udine, Italy. Next Generation EU PRIN 2022 project "20227F2ZN3 MoT–The Measure of Truth: An Evaluation-Centered Machine-Human Hybrid Framework for Assessing Information Truthfulness" Definition of an evaluation framework for misinformation detection systems, considering various aspects such as the creation of appropriately labeled datasets, addressing biases in dataset definition, and establishing suitable evaluation measures that specifically consider the concept of truthfulness in information.
Mar. 2023 - Nov. 2023	**Postdoctoral Research Fellow**. Department of Economic and Statistical Sciences (DIES), University of Udine, Italy. Research project focused on exploring conversational agent-based eGovernment applications for the Italian public administration, with a particular emphasis on healthcare.
Jan. 2022 - Mar. 2022	**Self-employed Worker**. Polytechnic Department of Engineering and Architecture (DPIA), University of Udine, Italy. Development of a web application dedicated to the comparability and reproducibility of research results in the field of combinatorial optimization.
Jun. 2018 - Oct. 2019	**Research Fellow**. Department of Mathematics, Computer Science and Physics (DMIF), University of Udine, Italy. Research project co-funded by SISSA Medialab is dedicated to the design, implementation, and evaluation of an ecosystem that provides an alternative to the standard peer review activity in the scholarly publishing process.

Work Experience (continued)

Jun. 2017 – Oct. 2019   🔖 **Self-employed Worker**. Datamantix S.r.l., Udine, Italy.
Design, development, and maintenance as a full-stack web developer of various types of web applications and a chatbot.

Aug. 2017 – Feb. 2018   🔖 **Self-employed Worker**. Archeido S.r.l., Udine, Italy.
Development as a full-stack web developer of a web application for managing and visualizing financial assets.

Nov. 2015 – Feb. 2016   🔖 **Self-employed Worker**. Troublezine.
Design, development, and maintenance as a full-stack web developer of a blog that offers news and events related to music.

Publications

1. Singh, J., **Soprano, M.**, Roitero, K., & Ceolin, D. (2024). Crowdsourcing Statement Classification to Enhance Information Quality Prediction. In *Proceedings of the 6th Multidisciplinary International Symposium on Disinformation in Online Open Media*. Accepted for publication on June 21, 2024, Münster, Germany: Springer.

2. **Soprano, M.**, Roitero, K., Gadiraju, U., Maddalena, E., & Demartini, G. (2024). Longitudinal Loyalty: Understanding The Barriers To Running Longitudinal Studies On Crowdsourcing Platforms. *ACM Transactions on Social Computing*. Under Publication. Journal Ranks: Journal Citation Reports (JCR) Q2 (2023), Scimago (SJR) Q2 (2023).

3. La Barbera, D., Maddalena, E., **Soprano, M.**, Roitero, K., Demartini, G., Ceolin, D., … Mizzaro, S. (2024). Crowdsourced Fact-checking: Does It Actually Work? *Information Processing & Management*, *61*(5), 103792. Journal Ranks: Journal Citation Reports (JCR) Q1 (2023), Scimago (SJR) Q1 (2023). 🔗 doi:10.1016/j.ipm.2024.103792

4. **Soprano, M.**, Roitero, K., La Barbera, D., Ceolin, D., Spina, D., Demartini, G., & Mizzaro, S. (2024). Cognitive Biases in Fact-Checking and Their Countermeasures: A Review. *Information Processing & Management*, *61*(3), 103672. Journal Ranks: Journal Citation Reports (JCR) Q1 (2022), Scimago (SJR) Q1 (2022). 🔗 doi:10.1016/j.ipm.2024.103672

5. **Soprano, M.**, Roitero, K., Della Mea, V., & Mizzaro, S. (2023). Towards a Conversational-Based Agent for Health Services. In F. Falchi, F. Giannotti, A. Monreale, C. Boldrini, S. Rinzivillo, & S. Colantonio (Eds.), *Proceedings of the Italia Intelligenza Artificiale - Thematic Workshops co-located with the 3rd CINI National Lab AIIS Conference on Artificial Intelligence* (Vol. 3486, pp. 278–283). Pisa, Italy: CEUR-WS.org. Retrieved from 🔗 https://ceur-ws.org/Vol-3486/96.pdf

6. La Barbera, D., **Soprano, M.**, Roitero, K., Maddalena, E., & Mizzaro, S. (2023). Fact-Checking at Scale with Crowdsourcing: Experiments and Lessons Learned. In F. M. Nardini, N. Tonelotto, G. Faggioli, & A. Ferrara (Eds.), *Proceedings of the 13th Italian Information Retrieval Workshop* (Vol. 3448, pp. 85–90). Pisa, Italy: CEUR-WS.org. Retrieved from 🔗 https://ceur-ws.org/Vol-3448/paper-18.pdf

7. Roitero, K., Barbera, D. L., **Soprano, M.**, Demartini, G., Mizzaro, S., & Sakai, T. (2023). How Many Crowd Workers Do I Need? On Statistical Power When Crowdsourcing Relevance Judgments. *ACM Transactions on Information Systems*. Journal Ranks: Journal Citation Reports (JCR) Q1 (2021), Scimago (SJR) Q1 (2021). 🔗 doi:10.1145/3597201

8. Brand, E., Roitero, K., **Soprano, M.**, Rahimi, A., & Demartini, G. (2022). A Neural Model to Jointly Predict and Explain Truthfulness of Statements. *Journal of Data and Information Quality*, *15*(1). Journal Ranks: Journal Citation Reports (JCR) Q3 (2021), Scimago (SJR) Q2 (2021). 🔗 doi:10.1145/3546917

9. Ceolin, D., Primiero, G., **Soprano, M.**, & Wielemaker, J. (2022). Transparent Assessment of Information Quality of Online Reviews Using Formal Argumentation theory. *Information Systems*, *110*, 102107.

Journal Ranks: Journal Citation Reports (JCR) Q2 (2021), Scimago (SJR) Q1 (2021).
🔗 doi:10.1016/j.is.2022.102107

10 Draws, T., La Barbera, D., **Soprano**, **M.**, Roitero, K., Ceolin, D., Checco, A., & Mizzaro, S. (2022). The Effects of Crowd Worker Biases in Fact-Checking Tasks. In *2022 ACM Conference on Fairness, Accountability, and Transparency* (pp. 2114–2124). 🔗 doi:10.1145/3531146.3534629

11 **Soprano**, **M.**, Roitero, K., Bombassei De Bona, F., & Mizzaro, S. (2022). Crowd_Frame: A Simple and Complete Framework to Deploy Complex Crowdsourcing Tasks Off-the-Shelf. In *Proceedings of the Fifteenth ACM International Conference on Web Search and Data Mining* (pp. 1605–1608). Conference Ranks: GGS A+, Core A*. 🔗 doi:10.1145/3488560.3502182

12 **Soprano**, **M.**, Roitero, K., La Barbera, D., Ceolin, D., Spina, D., Mizzaro, S., & Demartini, G. (2021). The Many Dimensions of Truthfulness: Crowdsourcing Misinformation Assessments on a Multidimensional Scale. *Information Processing & Management*, *58*(6), 102710. Journal Ranks: Journal Citation Reports (JCR) Q1 (2021), Scimago (SJR) Q1 (2021). 🔗 doi:10.1016/j.ipm.2021.102710

13 Brand, E., Roitero, K., **Soprano**, **M.**, & Demartini, G. (2021). E-BART: Jointly Predicting and Explaining Truthfulness. In I. Augenstein, P. Papotti, & D. Wright (Eds.), *Proceedings of the 2021 Truth and Trust Online Conference* (pp. 18–27). Virtual Event. Retrieved from
🔗 https://truthandtrustonline.com/wp-content/uploads/2021/10/TTO2021_paper_16-1.pdf

14 Ceolin, D., Primiero, G., Wielemaker, J., & **Soprano**, **M.** (2021). Assessing the Quality of Online Reviews Using Formal Argumentation Theory. In M. Brambilla, R. Chbeir, F. Frasincar, & I. Manolescu (Eds.), *Web Engineering* (pp. 71–87). Conference Ranks (2021): GGS B-, Core B.
🔗 doi:10.1007/978-3-030-74296-6_6

15 Roitero, K., **Soprano**, **M.**, Portelli, B., De Luise, M., Spina, D., Mea, V. D., … Demartini, G. (2021). Can The Crowd Judge Truthfulness? A Longitudinal Study On Recent Misinformation About COVID-19. *Personal and Ubiquitous Computing*, *27*(1), 59–89. Journal Ranks: Journal Citation Reports (JCR) Q2 (2020), Scimago (SJR) Q1 (2021). 🔗 doi:10.1007/s00779-021-01604-6

16 Roitero, K., **Soprano**, **M.**, Portelli, B., Spina, D., Della Mea, V., Serra, G., … Demartini, G. (2020). The COVID-19 Infodemic: Can the Crowd Judge Recent Misinformation Objectively? In *Proceedings of the 29th ACM International Conference on Information and Knowledge Management* (pp. 1305–1314). Conference Ranks: GGS A+, Core A. 🔗 doi:10.1145/3340531.3412048

17 Roitero, K., **Soprano**, **M.**, Fan, S., Spina, D., Mizzaro, S., & Demartini, G. (2020). Can The Crowd Identify Misinformation Objectively? The Effects of Judgment Scale and Assessor's Background. In *Proceedings of the 43st International ACM SIGIR Conference on Research and Development in Information Retrieval* (pp. 439–448). Conference Rank: GGS A++, Core A*. 🔗 doi:10.1145/3397271.3401112

18 **Soprano**, **M.**, Roitero, K., & Mizzaro, S. (2019a). Bias and Fairness in Effectiveness Evaluation by Means of Network Analysis and Mixture Models. In Agosti, Maristella and Di Buccio, Emanuele and Melucci, Massimo and Mizzaro, Stefano and Pasi, Gabriella and Silvestri, Fabrizio (Ed.), *Proceedings of the 10th Italian Information Retrieval Workshop* (Vol. 2441, 6–7). Padova, Italy: CEUR-WS.org. Retrieved from
🔗 https://ceur-ws.org/Vol-2441/paper4.pdf

19 **Soprano**, **M.**, Roitero, K., & Mizzaro, S. (2019b). HITS Hits Readersourcing: Validating Peer Review Alternatives Using Network Analysis. In Chandrasekaran, Muthu Kumar and Mayr, Philipp (Ed.), *Proceedings of the 4th Joint Workshop on Bibliometric-enhanced Information Retrieval and Natural Language Processing for Digital Libraries co-located with the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval* (Vol. 2414, 70–82). Paris, France: CEUR-WS.org. Retrieved from 🔗 https://ceur-ws.org/Vol-2414/paper7.pdf

20 **Soprano**, **M.**, & Mizzaro, S. (2019a). Crowdsourcing Peer Review in the Digital Humanities? In *Book of Abstracts, 8th AIUCD Conference 2019 – Pedagogy, Teaching, and Research in the Age of Digital Humanities* (p. 251). Udine, Italy. Retrieved from
🔗 http://aiucd2019.uniud.it/wp-content/uploads/2020/03/AIUCD2019-BoA_DEF.pdf

21   **Soprano**, **M.**, & Mizzaro, S. (2019b). Crowdsourcing Peer Review: As We May Do. In Manghi, Paolo and Candela, Leonardo and Silvello, Gianmaria (Ed.), *Digital Libraries: Supporting Open Science* (Vol. 988, 259–273). 🔗 doi:{10.1007/978-3-030-11226-4_21}

22   Roitero, K., **Soprano**, **M.**, Brunello, A., & Mizzaro, S. (2018). Reproduce and Improve: An Evolutionary Approach to Select a Few Good Topics for Information Retrieval Evaluation. *Journal of Data and Information Quality*, *10*(3). Journal Rank: Scimago (SJR) Q2 (2018). 🔗 doi:10.1145/3239573

23   Roitero, K., **Soprano**, **M.**, & Mizzaro, S. (2018). Effectiveness Evaluation with a Subset of Topics: A Practical Approach. In *The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval* (pp. 1145–1148). Conference Rank: GGS A++, Core A*. 🔗 doi:10.1145/3209978.3210108

Metrics

	Scholar	Scopus	ACM Digital Library
Articles	22	19	12
Citations	275	153	77
Citations / Articles	12.50	8.05	6.41
H-index	7	6	–
i10-index	6	–	–

Talks

2023   🔖 **Towards a Conversational-Based Agent for Healthcare**. *CARE: Conversational Agents and Responsible Ethics in Healthcare - Workshop at the European Federation of Medical Informatics Special Topic Conference 2023*, October 27, 2023. Turin, Italy. https://docs.google.com/presentation/d/1IZaI38oOJ3FktP79dINPOL_9lqXmQf-a3TC7vf5qmfU/edit?usp=sharing

🔖 **Towards a Conversational-Based Agent for Health Services**. *Terzo Convegno Nazionale CINI sull'Intelligenza Artificiale*, May 29, 2023. Pisa, Italy. https://www.ital-ia2023.it/submission/96/presentation

2022   🔖 **Longitudinal Loyalty: Understanding the Barriers to Running Longitudinal Studies on Crowdsourcing Platforms**. *Centrum Wiskunde & Informatica*, June 16, 2022. Amsterdam, The Netherlands. https://docs.google.com/presentation/d/1YBHKOKY_TdaCfwO9-pqm_jDGKYUiyXaKXj35pR3pSoM/edit?usp=sharing

🔖 **Crowd_Frame: A Simple and Complete Framework to Deploy Complex Crowdsourcing Tasks Off-the-Shelf**. *The 15th ACM International Conference on Web Search and Data Mining*, February 15th, Phoenix, U.S.A. Held remotely as a pre-recorded contribution due to the COVID-19 pandemic. https://dl.acm.org/doi/abs/10.1145/3488560.3502182 (supplemental material section).

2020   🔖 **The COVID-19 Infodemic: Can the Crowd Judge Recent Misinformation Objectively?** *29th ACM International Conference on Information and Knowledge Management*, October 19th, 2020. Galway, Ireland. Held remotely as a pre-recorded contribution due to the COVID-19 pandemic. https://dl.acm.org/doi/10.1145/3340531.3412048 (supplemental material section).

🔖 **Can The Crowd Identify Misinformation Objectively? The Effects of Judgment Scale and Assessor's Background** *43rd International ACM SIGIR Conference on Research and Development in Information Retrieval*, July 25th, 2020. Xi'an, China. Online, Held remotely as a pre-recorded contribution due to the COVID-19 pandemic. https://dl.acm.org/doi/abs/10.1145/3397271.3401112 (supplemental material section).

Talks (continued)

2019 📑 **Bias and Fairness in Effectiveness Evaluation by Means of Network Analysis and Mixture Model**. *Italian Information Retrieval Workshop*, September 16th, 2019. Padova, Italy. `https://docs.google.com/presentation/d/1F751FzwnxZjA0y0ctZy91BWEJzlCV19L9fF5OCn20Lo/edit?usp=sharing`

Teaching

2023-2024 📑 **Social Computing**, Bachelor's Degree in Internet of Things, Big Data & Web, University of Udine. Lectures: 2. Hours: 4.

2022-2023 📑 **Social Computing**, Bachelor's Degree in Internet of Things, Big Data & Web, University of Udine. Lectures: 2. Hours: 4.

2021-2022 📑 **Social Computing**, Bachelor's Degree in Internet of Things, Big Data & Web, University of Udine. Lectures: 6. Hours: 12.

2020-2021 📑 **Social Computing**, Bachelor's Degree in Internet of Things, Big Data & Web, University of Udine. Lectures: 6. Hours: 12.

Academic Activity

Organizational Roles

2024 📑 14th Italian Information Retrieval Workshop (IIR 2024), Udine, September 5-6. *Website Chair*. `https://iir2024.uniud.it/`

2023 📑 CARE: Conversational Agents and Responsible Ethics in Healthcare - Workshop at the European Federation of Medical Informatics Special Topic Conference 2023 (EFMI STC 2023), Turin, October 27. *Organizer*.

2022 📑 Fourth Symposium on Biases in Human Computation and Crowdsourcing (BHCC 2022), Online, October 12-13. *Proceedings and Website Chair*. `https://bhcc2022.org/`.

Program Committee Roles

2024 📑 12th AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2024), Pittsburgh, Pennsylvania, USA. *Full Papers Track*.

📑 47th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2024), Washington D.C., USA. *Full and Short Papers Tracks*.

2023 📑 45th European Conference on Information Retrieval (ECIR 2023), Dublin, Ireland. *Short Papers Track*.

2022 📑 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022), Madrid, Spain. *Short Papers Track*.

2021 📑 Third Symposium on Biases in Human Computation and Crowdsourcing (BHCC 2021), Online.

Reviewer

2023 📑 Information Processing & Management. `https://portal.issn.org/resource/ISSN/0306-4573`. Contribution registered on ORCID profile.

📑 Springer Nature Scientific Report. `https://portal.issn.org/resource/ISSN/2045-2322`.

📑 13th Italian Information Retrieval Workshop (IIR 2023), Pisa, Italy.

2022 📑 Information Processing & Management. `https://portal.issn.org/resource/ISSN/0306-4573`.

📑 Tenth AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2022), Online.

Academic Activity (continued)

- 📑 Conference and Labs of the Evaluation Forum (CLEF 2022), Bologna, Italy.
- 📑 44th European Conference on Information Retrieval (ECIR 2022), Stavanger, Norway.
- 📑 Second Symposium on Biases in Human Computation and Crowdsourcing (BHCC 2021), Delft, Netherlands (Online).

2021
- 📑 30th ACM International Conference On Information And Knowledge Management (CIKM 2021), Online.
- 📑 32nd ACM Conference on Hypertext and Social Media, (HT 2021), Online.

2020
- 📑 29th ACM International Conference On Information And Knowledge Management (CIKM 2020), Galway, Ireland (Online).
- 📑 31st ACM Conference on Hypertext and Social Media (HT 2020), Online.

2019
- 📑 15th Italian Research Conference On Digital Libraries (IRCDL 2019), Pisa, Italy.

Mentoring

2020 – Today
- 📑 **Co-supervision** of the theses of 5 Master (MSC), 13 Bachelor (BSC) Students, and various students advanced projects and seminars

Affiliations

2021 – Today
- 📑 **Member** of the Social, Mobile, Data & Crowd laboratory (SMDC), see: `https://smdc.uniud.it/smdc/en/members/`

Honors & Grants

2022
- 📑 **Student Grant**, *15th ACM International Conference on Web Search and Data Mining (WSDM 2022)*, Phoenix, U.S.A. Held remotely due to COVID-19. Provided by WSDM. Free conference subscription.

2020
- 📑 **Student Grant**, *29th ACM International Conference On Information And Knowledge Management (CIKM 2020)*, Galway, Ireland. Held remotely due to COVID-19. Provided by CIKM. Free conference subscription.

2019
- 📑 **Volunteer**, *43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020)*, Xi'an, China. Held remotely due to COVID-19. Provided by SIGIR. Free conference subscription.

References

Available on Request.

Links

ORCID: `https://orcid.org/0000-0002-7337-7592`

Google Scholar: `https://scholar.google.com/citations?user=ocK0qRUAAAAJ`

Scopus: `https://www.scopus.com/authid/detail.uri?authorId=57203392311`

ACM Digital Library: `https://dl.acm.org/profile/99659280921`

Web of Science: `https://www.webofscience.com/wos/author/record/JDD-6660-2023`

DBLP: `https://dblp.org/pid/222/1241.html`

Links (continued)

ResearchGate: https://www.researchgate.net/profile/Michael-Soprano

Kudos: https://www.growkudos.com/profile/michael_soprano

Mendeley: https://www.mendeley.com/profiles/michael-soprano/