

MICHELE LOI

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ACADEMIC QUALIFICATIONS

1997-2003

Degree: Four-year undergraduate degree (MA) in Philosophy

Grade: 110/110 with distinction

Institution: Faculty of Philosophy, University of Cagliari, Italy

Supervisor: Vanna Gessa-Kurotschka

Thesis title: "Consciousness: the Hard Problem"

2004-2007

Degree: Doctorate (Ph.D.) in Political Theory

Date awarded: 11 July 2007

Institution: Libera Università degli Studi Sociali Guido Carli (LUISS), Rome, Italy

Thesis title: "Well-being: an Investigation into its Natural Boundaries"

Supervisors: Sebastiano Maffettone and Gianfranco Pellegrino (LUISS University)

05.04.2018

Qualification: Italian National Scientific Qualification (ASN) for the second tier (associate professor)

Details: art. 16 of Law 240/2010, competitive sector 11/C3 (Sector of Moral Philosophy)

RESEARCH POSITIONS AND PROJECTS

2025 - present

Position: Independent Consultant

Activities: Development of operational frameworks for artificial intelligence governance: accountability methodologies, checkpoint systems and traceability for AI-assisted processes, EU AI Act and GDPR compliance.

September 2023 - February 2026

Position: Senior Scientific Advisor, AlgorithmWatch.org

Locations: Milan, Berlin

Project: "Auditing Algorithms for Systemic Risks"

September 2021 - August 2023

Position: Marie Skłodowska-Curie Individual Fellow

Location: Department of Mathematics, Politecnico di Milano

Projects:

- "Fair Predictions in Health"

- Scientific director of "Socially acceptable AI and fairness trade-offs in predictive analytics"

January 2021 - March 2023

Role: Principal Investigator

Project: "Fair algorithms"

Location: University of Zurich, Institute of Biomedical Ethics and History of Medicine

From June 2020

Role: Principal Investigator

Project: "Socially acceptable AI and fairness trade-offs in predictive analytics"

Location: University of Zurich, Institute of Biomedical Ethics and History of Medicine

July 2018 - August 2021

Position: Senior Researcher

Location: Digital Society Initiative, Institute of Biomedical Ethics and History of Medicine, University of Zurich

March 2017 - August 2020

Position: Postdoctoral Researcher

Location: University of Zurich

January 2016 - December 2016

Position: Post-doctoral research fellow in biomedical information ethics

Location: ETH Zurich

October 2015 - June 2016

Role: Consultant

Projects:

- Harmonisation of expert guidelines on "Managing Ethical Issues in Infectious Disease Outbreaks"

- "Ethics of Public Health Surveillance"

Location: World Health Organization, Global Health Ethics Unit, Geneva

April 2013 - September 2015

Position: Post-doc

Location: Universidade do Minho, Institute of Art and Humanities, Braga

July 2012 - March 2013

Position: Post-doc

Location: San Raffaele Biomedical Science Park, Milan

September 2008 - February 2012

Position: Post-doc

Location: Università Vita-Salute San Raffaele, Milan

TEACHING EXPERIENCE

2024-2025

Adjunct Professor of “AI, Ethics and Law” (Ethics component), Università degli Studi di Milano Statale

2021-2023

MOOC: “Fairness in Machine Learning: philosophical and normative considerations”, consisting of five sections: (1) philosophical and normative considerations, (2) causality, discrimination and fairness, (3) fairness and bias, (4) achieving fairness after bias, (5) fairness and equality of opportunity. For “MOOC: Responsible Innovators of Tomorrow”, conceived by GDE at RWTH Aachen University, ENHANCE network.

Spring 2022

“Informatics, Ethics, and Society”, sole instructor, Faculty of Business, Economics and Informatics, University of Zurich.

Spring 2021

“Ethical, legal and social aspects of cybersecurity”, co-instructor (equal teaching time), Faculty of Business, Economics and Informatics, University of Zurich.

Spring 2020

“Ethical, legal and social aspects of cybersecurity”, co-instructor (equal teaching time), Faculty of Business, Economics and Informatics, University of Zurich.

15 October 2019

Visiting lecturer on “Ethics of Cybersecurity” for BA students in the computer science programme, Department of Information Security and Communication Technologies, Norwegian University of Science and Technology (NTNU), Norway.

19-23 August 2019

Invited lecturer, “Nudging cybersecurity in a fair way”, IFIP Summer School on Privacy and Identity Management, Brugg/Windisch, Switzerland.

March 2019

Lecture “Ethical Frameworks for Cybersecurity”, as part of the MOOC CANVAS, CANVAS: CSE100 Cyber Security Ethics, <https://mooc.canvas-project.eu/courses/course-v1:CANVAS+CSE100+SS2019/course/>.

21 February 2019 - 9 May 2019

“Informatik, Ethik und Gesellschaft” (Informatics, Ethics and Society), with Markus Christen and Markus Kneer.

7-10 January 2019

Invited lecturer, “Algorithmic fairness, discrimination, and equality of opportunity”, Winter School on Inequality and Social Welfare Theory, Alba di Canazei (TN), Italy.

13 March 2018 - 24 April 2018

Interdisciplinary seminar “How does ethics work” for doctoral students at the Institute of Biomedical Ethics and History of Medicine, University of Zurich.

Autumn 2012

Bioethics module for the Medical Humanities course of the International MD Programme, Università Vita-Salute San Raffaele, Milan. Part of a 9 ECTS course in Medical Humanities (10 hours of lectures).

Spring 2011

Bioethics module for the Medical Humanities course of the International MD Programme, Università Vita-Salute San Raffaele, Milan. Part of a 9 ECTS course in Medical Humanities.

Spring 2012

“Philosophy and Human Rights”, Università Vita-Salute San Raffaele, Milan.

Prior to independent teaching, he served as teaching assistant and examiner for the moral philosophy course of Prof. Roberto Mordacci (2008–2011, Università Vita-Salute San Raffaele) and for the political philosophy course of Prof. Sebastiano Maffettone (2007–2008, LUISS Guido Carli, Rome).

PROFESSIONAL ACHIEVEMENTS AND RECOGNITION

INTERNATIONAL SPEAKER

2025

Invited speaker: Confidence and Fairness: Scientific Foundations in AI and Risk. SCOR Foundation, Paris, 15 May 2025.

Invited speaker: Discrimination, fairness and algorithms workshop, Johannes Gutenberg Universität Mainz, 21 March 2025.

Keynote speaker: GenTech 2025 (interdisciplinary workshop on gender and technology), Zurich, 18 March 2025.

2023

Normative Political Theory and Empirical Research: Approaches, Methods and Challenges, Monash University Prato Centre (Tuscany, Italy), 1-2 February 2024.

Epistemic Rights in AI Policy: Invited talk at Eindhoven University of Technology, 8-10 November.

Workshop on Algorithmic Decision-making and Discrimination: Invited talk at the University of Aarhus (Denmark), 23-24 November.

Causality for Ethics and Society, Munich, Germany, 24-25 July:

- "Algorithmic Unfairness and Group Level Causation" (sole author)

- "Classification Parity, Causal Equal Protection and Algorithmic Fairness" (with co-authors)

- "How I Would Have Been Differently Treated. Discrimination Through the Lens of Counterfactual Fairness" (with co-authors)

European Workshop on Algorithmic Fairness (EWAF '23), 7-9 June: organisation and presentation of two full papers in Winterthur, Switzerland (international peer review).

2022

ACM FAccT 2022, Seoul, South Korea, 21-24 July:

- with Christoph Heitz, "Is Calibration a Fairness Requirement? An Argument from the Point of View of Moral Philosophy and Decision Theory."

- with Andrea Ferrario, "How Explainability Contributes to Trust in AI."

- with Eleonora Viganò, Corinna Hertweck and Christoph Heitz, "People are not Coins: Morally Distinct Types of Predictions Necessitate Different Fairness Constraints."

Previous years

Invited panellist on various topics, from "Cybersecurity, AI, and Ethics" at the Leuven AI Law & Ethics Conference (LAILEC) in 2021 to discussions on the ethics of nudging for privacy at the IFIP Summer School on Privacy and Identity Management in 2019.

Keynote, “From the Ethics of Data to the Politics of Algorithms”, Symposium: Ethical Issues in Big Data Research, Basel, 2018.

Invited lecturer at summer schools (e.g., IFIP Summer School on Privacy and Identity Management) and winter schools (e.g., Winter School on Inequality and Social Welfare Theory, Alba di Canazei, TN, Italy).

DIRECTED RESEARCH PROJECTS

Socially Acceptable and Fair Algorithms

June 2020 - May 2024

Role: Principal Investigator (unit head) and principal author of the funding proposal.

Funding: CHF 619,808

Institution: Initially University of Zurich, Institute of Biomedical Ethics and History of Medicine (transferred to Politecnico di Milano, with the grant remaining at Zurich)

Funding body: Swiss National Science Foundation (SNSF)

Description: Development of a fairness-focused methodology for machine learning applications, integrating philosophical, empirical and development research. Interdisciplinary project involving three units from three distinct universities. Although Prof. Christoph Heitz is the formal coordinator, Dr. Loi shares equal decision-making responsibility as co-Principal Investigator, supervising primarily the ethical and philosophical components.

Fair Algorithms

January 2021 - March 2023

Role: Principal Investigator, co-applicant and co-author of the proposal.

Funding: CHF 544,467.96 plus an additional CHF 561,658.00 in industrial matching funds.

Institution: University of Zurich, Institute of Biomedical Ethics and History of Medicine.

Funding body: Swiss Innovation Agency.

Description: Project involving two units from three different universities and various industrial partners, aimed at controlling and mitigating algorithmic bias in data-driven decisions. Coordinated by Prof. Christoph Heitz; Dr. Loi, as co-PI, manages primarily the ethical and philosophical aspects.

One Stop Shop Ethics Review

June 2018 - August 2020

Role: Project Manager

Institution: University of Zurich, Digital Society Initiative
Funding body: University of Zurich

Auditing of Automated Decision-Making Systems

October 2020 - December 2020

Role: Researcher, responsible for the development of the scientific methodology
Institution: University of Zurich, Digital Society Initiative
Funding body: AlgorithmWatch

ELSI Task Force

March 2017 - May 2020

Role: Project Manager
Institution: University of Zurich, Digital Society Initiative
Funding body: Swiss National Science Foundation

Drafting an Ethics Code for Data-Based Value Creation

January 2019 - October 2020

Role: Principal editor of the code
Institution: University of Zurich, Digital Society Initiative
Funding body: Swiss Innovation Agency

Report on Data-Driven Approaches in HR Management

September 2019 - December 2020

Role: Responsible for methodological development and principal author of the report
Institution: University of Zurich, Digital Society Initiative
Funding body: AlgorithmWatch

Consortium for Value-Driven Cybersecurity

March 2017 - October 2019

Role: Scientific assistant to the project coordinator (Dr. Markus Christen) and contributor to the early drafts of the proposal.
Funding: EUR 1,000,000.00 from the European Union.
Institution: University of Zurich, Digital Society Initiative
Funding body: European Union, H2020 programme

Managing Ethical Issues in Infectious Disease Outbreaks

October 2015 - June 2016

Role: Process coordinator
Institution: World Health Organization, Global Health Ethics Unit

COST Action “CHIP ME”

April 2013 - September 2015

Role: Vice-Chair, Grant Holder (for the first half of the project, see <http://chipme.eu/eng/about-us.aspx>)

Institution: University of Minho

Description: From 11 September 2013 to 1 October 2015, Dr. Loi was deeply involved in COST Action CHIP ME, focused on public-private partnerships in genetic testing and genomic biobanking. Funding was provided by 36 countries. Dr. Loi drafted the project that secured the funds and held the role of Vice-Chair from November 2013 to September 2015. The University of Minho designated him Grant Holder.

Workshops and Conferences

Co-General Chair: Dr. Loi assumed the role of General Chair for the 1st (EWAFF '22) and 2nd European Workshop on Algorithmic Fairness (EWAFF '23). The meetings were attended by over 100 international participants. Further details on EWAFF '23. Board Member, European Association for Algorithmic Fairness (2022 - November 2025; resigned November 2025).

Expert Advisory Roles

Dr. Loi's expertise has been sought by numerous national and international institutions. Contributions include:

- OECD: contributions on “Ethics of AI in the Workplace”.
- Centre for Data Ethics and Innovation (CDEI): key role in the “Data Reform Workshop”.
- Digital Economy Secretariat.
- European Commission Joint Research Centre: participation in a “Peer-learning workshop on the use and impact of AI in the public sector”.
- European Medicines Agency: support for the “Data Anonymisation Workshop”.

Editorial and Review Roles

Programme committee: member of the programme committee for FAccT '23 (ACM); member of the programme committee NeurIPS 2026.

Ad hoc reviewer for numerous journals and publications, including:

- Synthese
- Philosophical Studies
- Ethics and Information Technology
- Philosophy and Technology
- FAccT '23
- EWAFF '23
- Journal of Medical Ethics

- European Journal of Human Genetics
- Oxford University Press
- American Philosophical Quarterly
- Res Publica

Mentorship

Throughout his academic career, Dr. Loi has consistently valued mentorship as a key function, promoting young talent and guiding them in their research. While not focused on quantity, the depth of his mentorship demonstrates the care and quality of his commitment.

- Undergraduate mentorship: supervised one BA student in philosophy, developing their analytical and critical capacities.
 - Doctoral supervision: co-supervision of two doctoral students in computer science, with an interdisciplinary approach bridging computer science and philosophical ethics.
 - Post-doc guidance: Dr. Eleonora Viganò, a post-doctoral researcher in philosophy, was mentored by Dr. Loi in his role as Principal Investigator.
 - Interdisciplinary transition: key role in the research transition of Dr. Andrea Ferrario: from mathematics to philosophical AI ethics, facilitated through collaboration with Dr. Loi.
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AWARDS AND HONOURS

Papers and Contributions

Best Student Paper: as supervising co-author and sole philosopher among the authors, Dr. Loi's contribution was instrumental in securing recognition for the paper "On the Moral Justification of Statistical Parity", presented at the ACM Conference on Fairness, Accountability, and Transparency 2021.

Best ELSI Contribution: as first co-author and sole philosopher, the paper "A Blindspot of AI Ethics: Anti-Fragility in Statistical Prediction", written with Lonneke Van der Plas, was awarded at the Swiss Data Science Conference 2020.

Citation Profile – Summary

Michele Loi has demonstrated robust academic impact, as evidenced by growing citations and indices. In 2025 his work totalled 2,887 citations (to date).

Annual citation growth from 2016 to 2024 has been consistent (from 32 to 520 citations per year).

H-index: 26 (at least 26 publications with at least 26 citations each).

i10-index: 46 (at least 46 works with at least 10 citations each).

Among the most cited works:

- A moral framework for understanding fair ML through economic models of equality of opportunity (with H. Heidari, K.P. Gummadi, A. Krause). Although second author, Dr. Loi is the only philosopher.
- How explainability contributes to trust in AI (joint first author)
- Social epigenetics and equality of opportunity. First author; milestone in the interdisciplinary debate on social epigenetics and equality of opportunity.
- In AI we trust incrementally: A multi-layer model of trust to analyze human-artificial intelligence interactions (with A. Ferrario - first author - and E. Viganò); among the most impactful publications on trust in AI, integrating technical AI expertise.
- Towards accountability in the use of artificial intelligence for public administrations (first author)
- Transparency as design publicity: explaining and justifying inscrutable algorithms (first author)

Competitive International Fellowships

Marie Curie Individual Fellowship: H2020 MSCA IF 2019, score 100/100.

Host: Politecnico di Milano.

Harvard/Brocher Summer School: partial grant of CHF 1,500.

Brocher Summer Academy in Global Population Health: selected for the Summer Academy (June 2014).

Hoover Fellowship: EUR 1,500, Université Catholique de Louvain, Louvain-la-Neuve, Belgium (March 2012).

Brocher Fellowship: approx. CHF 6,000, Fondation Brocher, Hermance, Switzerland (April-June 2010). Additional grant from the Scuola di Alta Formazione Filosofica, Centro Studi Filosofico Religiosi Luigi Pareyson, Turin.

Summer School in Analytic Philosophy: invited by Prof. Marco Santambrogio as a BA student (Bertinoro, 1999).

SKILLS AND AREAS OF EXPERTISE

Interdisciplinary agility: ability to weave threads from different disciplines to create a coherent and informative whole.

Adaptive learning: speed in assimilating new knowledge from varied sources, essential for operating at the intersection of multiple disciplines.

Strategic vision: ability to situate individual research projects within a broader academic and social framework.

Problem solving: analytical approach to identifying and addressing challenges with innovative solutions.

Resilience and perseverance: tenacity in pursuing research goals, despite the typical difficulties of pioneering paths.

Courageous innovation: propensity to explore new territories, challenge conventional wisdom and adopt untested methodologies for emerging questions.

Collaborative leadership: valuing collective intelligence and creating collaborative contexts where diverse perspectives converge into disruptive insights.

Effective communication: translation of complex philosophical and interdisciplinary ideas into narratives accessible to heterogeneous audiences.

Ethical vigilance: solid moral compass, to ensure that research — especially at the boundary between technology and philosophy — remains anchored to ethical principles.

Comfort with ambiguity: ease working under conditions of uncertainty, viewed as opportunities for new ideas and methodologies.

REFERENCES

Available upon request.