

LUCA MARCONI

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Public version: selected current activities are summarized; complete date-specific CV available upon request.

ACADEMIC PROFILE

Postdoctoral Researcher and Adjunct Professor in Artificial Intelligence at the University of Milano-Bicocca. My research develops evaluation frameworks, design principles, and governance approaches for Human-Centered AI, with the overarching goal of understanding how humans and AI systems can interact, collaborate, learn, and make decisions effectively while preserving human agency, expertise, critical thinking, and responsibility.

My research program centers on three complementary pillars: Interaction Quality, advancing the multidimensional evaluation of Human-AI interaction beyond system performance alone; Meaningful Human Oversight, investigating how AI can augment human judgment and competence while mitigating overreliance, deskilling, automation bias, and cognitive offloading; and Responsible AI Governance, translating these principles into rigorous evaluation, validation, transparency, and responsible deployment of AI-enabled systems.

I investigate these questions primarily in education and healthcare, where the consequences of Human-AI interaction are particularly significant. Across these domains, I combine theoretical frameworks, evaluation methodologies, and empirical studies to examine how people and AI collaborate, learn, reason, and make decisions under uncertainty. My work ultimately aims to inform the design and governance of AI systems that strengthen rather than substitute human capabilities, enabling effective Human-AI collaboration while safeguarding judgment, autonomy, expertise, and responsibility.

POSITIONS AND AFFILIATIONS

Postdoctoral Researcher - Assegnista di Ricerca | University of Milano-Bicocca, DISCo / MUDI Lab, Mar 2023-present

- Research project: Interaction Quality and Explanation Efficacy Assessment Tool for Conversational Agents in Heterogeneous Domains.
- Research focus: Human-AI Interaction Quality, meaningful human oversight, and responsible AI evaluation and governance, with applications in conversational AI, education, and healthcare.
- Scientific supervisor: Prof. Federico Cabitza.
- Contribute to organizational coordination and research-activity mapping within the Department of Excellence project ReGAIInS, particularly Action O1-A2 on Fair, Accountable and Transparent AI, including interviews with faculty members, collection and classification of departmental research activities, and synthesis/alignment of contributions with the Action objectives.

Adjunct Professor - Human-Computer Interaction | MSc in Human-Centered AI, University of Milano-Bicocca, Feb 2026-present

- Lecturer and course instructor of record for the core course Human-Computer Interaction, integrating HCI foundations, UX evaluation, Human-AI Interaction, responsible AI, explainability, fairness, transparency, and AI governance in human-centered contexts.
- Design and deliver lectures, methodological activities, and project-based learning focused on the evaluation of interactive and AI-enabled systems.

Adjunct Professor - Human-System Interaction | BSc in Artificial Intelligence, University of Milano-Bicocca / inter-university programme, Oct 2023-present

- Teach Human-AI Interaction, user-centered evaluation, UX/usability evaluation, design sciences, interaction paradigms, and structured human-AI collaboration protocols.
- Design project-based learning activities where students critically use LLMs as academic tutors and mentors under structured protocols, with evaluation of interaction quality and perceived effectiveness.

Adjunct Professor / Lecturer - Information Systems | MSc in Computer Science and MSc in Theory and Technology of Communication, University of Milano-Bicocca, A.Y. 2024-2025

- Delivered lectures and educational activities on Information Systems, digital transformation, business process management, organizational information systems, and AI-enabled socio-technical systems.
- Contributed to the integration of human-centered AI, responsible AI, and decision-support perspectives within Information Systems education.

Lecturer - Master di II Livello “DAI4Health: Innovazione Digitale e Intelligenza Artificiale nel Settore Sanitario” | University of Milano-Bicocca, A.Y. 2025-2026

- Delivered invited lectures on Artificial Intelligence in healthcare, human-centered evaluation of clinical AI systems, decision-support systems, and responsible adoption of AI in healthcare practice.

Tutor and Instructor - Teacher Training Programme in Computer Science | University of Milano-Bicocca, 2024-present

- Tutor and instructor within the national teacher-training programme for secondary-school teachers in Computer Science.
- Contribute to the design and delivery of educational activities on computer science, digital technologies, artificial intelligence, and their pedagogical integration in secondary education.
- Support pre-service teachers in developing disciplinary, methodological, and digital competencies aligned with contemporary educational and technological challenges.

Lecturer and Faculty Member | Advanced School in Artificial Intelligence, Brain, Mind and Society (ISTC-CNR / AI2Life), 2022-2025

- Lecturer for Social Simulation and co-lecturer for Python for Social Simulations, covering computational social science, socio-physics, agent-based modelling, opinion dynamics, and complex social systems.
- Contributed to course design, curriculum refinement, and supervision of applied projects.

RESEARCH PROGRAM AND DISTINCTIVE CONTRIBUTIONS

My research program examines how AI systems can be evaluated, designed, and governed to enable effective Human-AI collaboration while preserving human agency, expertise, critical thinking, and responsibility. It centers on three interconnected research pillars and is developed primarily across education and healthcare, with conversational and socio-technical AI as cross-cutting contexts of investigation.

- 1. Interaction Quality and Human-AI Evaluation:** Developing theoretical, methodological, and psychometric frameworks for evaluating Human-AI interaction beyond system performance alone. This research advances multidimensional approaches integrating cognitive, behavioral, collaborative, and experiential dimensions of interaction, with particular attention to conversational agents, Large Language Models, and AI-supported decision-making.
- 2. Meaningful Human Oversight:** Investigating how AI systems can augment human judgment and capabilities while preserving agency, competence, expertise, and responsibility. This research examines the conditions for meaningful human oversight and calibrated reliance, addressing overreliance, automation bias, cognitive offloading, and AI-induced deskilling. An emerging research direction concerns Cognitive Sustainability: understanding how sustained interaction with AI shapes human cognitive capabilities over time, and how Human-AI systems can be designed and governed to support rather than progressively erode judgment, critical thinking, expertise, and autonomy.
- 3. Responsible AI Governance and Deployment:** Translating Human-Centered AI principles into rigorous approaches to evaluation, validation, transparency, standardization, and responsible deployment. This research connects Human-AI Interaction with the governance of AI-enabled systems across their lifecycle, with particular attention to methodological quality, regulatory transparency, socio-technical accountability, and the conditions required for trustworthy integration into real-world practices.

Application Domains

- **AI in Education:** Designing and evaluating structured Human-AI collaboration with Large Language Models, focusing on interaction protocols, AI-supported learning, cognitive engagement, critical thinking, AI literacy, and the responsible integration of Generative AI into teaching and learning.
- **Healthcare and Medical AI:** Evaluating AI-enabled clinical and medical technologies through research on clinical decision support, robustness, uncertainty, external validation, methodological quality, human oversight, regulatory transparency, and responsible deployment.
- **Cross-cutting contexts - Conversational and Socio-Technical AI:** Designing and evaluating Human-AI interactions and collaboration configurations involving conversational agents and AI-supported workflows across professional and organizational settings, examining how interaction quality, human oversight, and governance principles translate across heterogeneous real-world contexts.

EDUCATION

PhD in Computer Science - Artificial Intelligence and Decision Systems | University of Milano-Bicocca, 2019-2022

- Thesis: An eXplainable Recommender System for Course Creation in the Educational Platform WhoTeach.
Supervisors: Prof. Sara Manzoni, Prof. Italo Zoppis, Dr. Francesco Epifania.

Postgraduate Research Diploma - Advanced School in Artificial Intelligence, Brain, Mind and Society | ISTC-CNR / AS-AI, 2019-2020

- Track: Computational Social Science. Research project: Democracy perception analysis in the European population: an empirical and computational study.

Master of Science in Physics of Complex Systems | University of the Balearic Islands / IFISC, 2016-2017; degree awarded 14 May 2018

- Research area: dynamics and collective phenomena of social systems. Thesis: The noisy voter model with contrarian agents: a theoretical and computational study.

Laurea Magistrale in Ingegneria Gestionale - ICT & Business Management | Politecnico di Milano, 2013-2015; degree awarded 27 Apr 2016

- Thesis: Newspaper text analysis for the prediction of financial events: the Mercurio project.

Laurea Triennale in Ingegneria Gestionale - Organization | Politecnico di Milano, 2010-2013

AWARDS, HONORS, COMPETITIVE APPOINTMENTS, AND SELECTED RECOGNITIONS

Awards and International Recognitions

- Finalist (Top 5 National Finalists), John McCarthy Research Award for Young Italian Researchers in Artificial Intelligence, AI Week Italia, 2022.
- Finalist, ELISE 1st Open Call - European Network of AI Excellence Centres (2021), selected among 24 finalists at the European level.
- Cover Article Recognition, Machine Learning and Knowledge Extraction (2026): “Assessing Interaction Quality in Human-AI Dialogue: An Integrative Review and Multi-Layer Framework for Conversational Agents” selected by the Editors as a Cover Article.

Competitive Academic Appointments

- Winner of a 24-Month A2 Postdoctoral Research Fellowship, Department of Informatics, Systems and Communication (DISCo), University of Milano-Bicocca (2023), following competitive evaluation based on qualifications and interview.
- Winner of a Postdoctoral Research Fellowship as Medical Data Analyst and Decision-Support Designer, Regione Lombardia / ASST Fatebenefratelli-Sacco (2023).
- Winner of Adjunct Teaching Appointments for Human-Computer Interaction (MSc in Human-Centered AI), Human-System Interaction (BSc in Artificial Intelligence) and Information Systems (MSc in Computer Science and MSc in Theory and Technology of Communication), University of Milano-Bicocca.
- Winner of Teaching-Tutor Appointments for Fuzzy Systems and Evolutionary Computing and Human-System Interaction, BSc in Artificial Intelligence, University of Milano-Bicocca.

Selected Competitive Scientific Outcomes

- Paper accepted and presented at AIED 2025, a CORE A ranked international conference in Artificial Intelligence in Education.
- HWID 2024 contribution selected for publication in the Springer IFIP Advances in Information and Communication Technology (AICT) Revised Selected Papers volume.
- Contribution selected by the organizers of AIxIA 2020 (Rebooting AI) for publication in the Springer Lecture Notes in Computer Science (LNCS) post-proceedings volume.

BIBLIOMETRIC INDICATORS

- Scopus author profile: 20 indexed documents, 157 citations by 150 documents, h-index 4; 36 co-authors; Scopus ID 57190131241; ORCID 0000-0002-0236-6159 (profile exported 24 August 2026).
- Google Scholar profile: 344 citations, h-index 8, i10-index 6; 340 citations since 2021 (profile exported 24 August 2026).
- Recent research output and authorship (2024-2026; based on publications reported in this CV, publisher metadata, and journal rankings at the time of publication): 10 peer-reviewed journal and conference/workshop publications; first or co-first author on 8/10 (80%), comprising 7 first-authored and 1 co-first-authored publication; corresponding or co-corresponding author on 6/9 (67%) publications for which the venue formally designates a corresponding-author role. Five of six journal articles/reviews (83%) were published in Q1 journals.

PEER-REVIEWED PUBLICATIONS

Recent Journal Articles and Reviews

Marconi, L., Pirovano, E., & Cabitza, F. (2026). Evaluating AI Research Quality in Myasthenia Gravis: A Longitudinal Study Using the CLARITY Framework (2020-2024). *Journal of Medical Systems*, 50(1), 10. Q1 journal; Medical AI quality assessment and research-evaluation methodologies.

Marconi, L., Longo, L., & Cabitza, F. (2026). Assessing Interaction Quality in Human-AI Dialogue: An Integrative Review and Multi-Layer Framework for Conversational Agents. *Machine Learning and Knowledge Extraction*, 8(2), 28. Q1 journal; Cover Article; integrative review and framework for Human-AI dialogue quality, conversational-agent evaluation, and Human-AI Interaction assessment.

- Natali, C.*, **Marconi, L.***, Dias Duran, L. D., & Cabitza, F. (2025). AI-induced Deskilling in Medicine: A Mixed-Method Review and Research Agenda for Healthcare and Beyond. *Artificial Intelligence Review*, 58(11), 356. Q1 journal; 85 Scopus citations and 174 Google Scholar citations (retrieved 24 August 2026).
- Marconi, L.**, & Cabitza, F. (2025). Show and Tell: A Critical Review on Robustness and Uncertainty for a More Responsible Medical AI. *International Journal of Medical Informatics*, 202, 105970. Q1 Health Informatics journal; 37 Scopus citations and 50 Google Scholar citations (retrieved 24 August 2026).
- Campagner, A., **Marconi, L.**, Bianchi, E., Arosio, B., Rossi, P., Annoni, G., Lucchi, T. A., Montano, N., & Cabitza, F. (2025). Uncovering Hidden Subtypes in Dementia: An Unsupervised Machine Learning Approach to Dementia Diagnosis and Personalization of Care. *Journal of Biomedical Informatics*, 165, 104799. Q1 journal; unsupervised machine learning for dementia subtyping and personalized care.
- Marconi, L.**, & Cabitza, F. (2024). The Challenges and Promises of Artificial Intelligence in the Contemporary Society: A Critical Perspective. *Urbaniana University Journal / Euntes Docete*, 2024(2), 83-104.

* *Equal contribution / co-first authorship.*

Conference Papers, Workshops, and Proceedings

- Marconi, L.**, Brasca, F., & Ferri, P. M. (2026). Evaluating Large Language Models as Academic Tutors: A Human-AI Collaboration Approach for Structured Literature Review. In *HCI International 2025 - Late Breaking Papers* (pp. 197-213). *Lecture Notes in Computer Science (LNCS)*, vol. 16346. Springer. Human-AI collaboration, AI in Education, and evaluation of LLM-based academic tutoring.
- Natali, C., **Marconi, L.**, Fregosi, C., & Cabitza, F. (2026). Humans in the Group, Computers in the Coop: Comparison of Individual and Collective Improvement in Cognitive Tasks in Adjunct AI Settings. In *Human Work Interaction Design. Sustainable Workplaces by Design. IFIP Advances in Information and Communication Technology (AICT)*, vol. 751, pp. 174-191. Springer.
- Marconi, L.**, & Cabitza, F. (2025). Tutor or Mentor. A Comparative Usability Study of AI Roles in Higher Education. *Proceedings of the 26th International Conference on Artificial Intelligence in Education (AIED 2025)*, Part III, pp. 201-208. *Communications in Computer and Information Science (CCIS)*, vol. 2592. Springer. CORE A conference.
- Marconi, L.**, Pirovano, E., & Cabitza, F. (2024). CLARITY AI: A Comprehensive Checklist Integrating Established Frameworks for Enhanced Research Quality in Medical AI Studies. In *Proceedings of the 3rd Workshop on Artificial Intelligence for Healthcare (HC@AIXIA 2024)*. *CEUR Workshop Proceedings*, vol. 3880, pp. 1-14.
- Marconi, L.**, Matamoros Aragon, R. A., & Epifania, F. (2022). Discovering the Unknown Suggestion: A Short Review on Explainability for Recommender Systems. In *Proceedings of the 2nd Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2022)*, co-located with the 21st International Conference of the Italian Association for Artificial Intelligence (AI*IA 2022). *CEUR Workshop Proceedings*, vol. 3463, pp. 1-15.
- Ali, D., Epifania, F., Ahmed, N., Khan, B., **Marconi, L.**, & Matamoros Aragon, R. A. (2022). A Modified CNN for Age and Gender Prediction. In *Proceedings of the 2nd Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2022)*, co-located with the 21st International Conference of the Italian Association for Artificial Intelligence (AI*IA 2022). *CEUR Workshop Proceedings*, vol. 3463, pp. 1-7.
- Marconi, L.**, Matamoros Aragon, R. A., Zoppis, I., Manzoni, S., Mauri, G., & Epifania, F. (2021). Explainable Attentional Neural Recommendations for Personalized Social Learning. In *AIXIA 2020 - Advances in Artificial Intelligence*. *Lecture Notes in Computer Science*, vol. 12414, pp. 67-79. Springer.
- Matamoros Aragon, R. A., **Marconi, L.**, Zoppis, I., Manzoni, S., Mauri, G., & Musiu, E. (2021). Enhancing Teachers-AI Collaboration: Human Computer Interaction Techniques for Recommender Systems in Educational Platforms. Presented at *Convegno Nazionale Didamatica 2021 - "Artificial Intelligence for Education"*, Palermo.
- Crinieri, A., Terzi, L., Ruggeri, F., Matamoros Aragon, R. A., Epifania, F., & **Marconi, L.** (2021). Recognition of Skin Diseases and Exanthema with Deep Learning Techniques. In *Proceedings of the 1st Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2021)*, co-located with the 20th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2021). *CEUR Workshop Proceedings*, vol. 3102.
- Schiaffino, A., Reina, M., Matamoros Aragon, R. A., Epifania, F., Ruggeri, F., Castrignano, I. M., & **Marconi, L.** (2021). CMS Optimization with Deep Learning Techniques. In *Proceedings of the 1st Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2021)*, co-located with the 20th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2021). *CEUR Workshop Proceedings*, vol. 3102.
- Monticelli, M., Matamoros Aragon, R. A., Epifania, F., **Marconi, L.**, & De Simone, A. (2021). KCRS: KClustering Recommender System for Component Configuration. In *Proceedings of the 1st Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2021)*, co-located with the 20th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2021). *CEUR Workshop Proceedings*, vol. 3102.
- Marconi, L.**, Matamoros Aragon, R. A., Zoppis, I., Manzoni, S., Mauri, G., & Epifania, F. (2020). Approaching Explainable Recommendations for Personalized Social Learning: The Current Stage in the Educational Platform "WhoTeach". In *Italian Workshop on Explainable Artificial Intelligence 2020*. *CEUR Workshop Proceedings*, vol. 2742, pp. 104-111.

- Zoppis, I., Manzoni, S., Mauri, G., Matamoros Aragon, R. A., **Marconi, L.**, & Epifania, F. (2020). Attentional Neural Mechanisms for Social Recommendations in Educational Platforms. In Proceedings of the 12th International Conference on Computer Supported Education (CSEDU 2020), vol. 1, pp. 111-117. SciTePress.
- Zoppis, I., Dondi, R., Manzoni, S., Mauri, G., **Marconi, L.**, & Epifania, F. (2019). Optimized Social Explanation for Educational Platforms. In Proceedings of the 11th International Conference on Computer Supported Education (CSEDU 2019), vol. 1, pp. 85-91. SciTePress.
- Brambilla, M., Greco, D., Marchesini, S., **Marconi, L.**, Mazuran, M., Morlacchi Bonfanti, M., Negrini, A., & Tanca, L. (2016). Forecasting Out-of-the-Ordinary Financial Events. In Proceedings of the 2nd International Workshop on Personalization and Recommender Systems in Financial Services (FINREC 2016). CEUR Workshop Proceedings, vol. 1606, pp. 11-15.

Book Chapters

- Marconi, L.** (2023). AI, the Overall Picture. In F. Cecconi (Ed.), AI in the Financial Markets: New Algorithms and Solutions, pp. 13-37. Springer.
- Marconi, L.** (2023). Opinion Dynamics. In F. Cecconi (Ed.), AI in the Financial Markets: New Algorithms and Solutions, pp. 117-135. Springer.

Other Peer-Reviewed Publications and Scholarly Contributions

- Cabitza, F., & **Marconi, L.** (2026). “(Il fatto). Intelligenza artificiale e riconoscimento facciale: tra fatto, norma e interpretazione.” In G. Della Morte (Ed.), L'intelligenza artificiale tra fatto e norma. Milan: Giuffrè Francis Lefebvre, pp. 115-137. ISBN 978-88-28-88588-7.
- Marconi, L.**, & Cabitza, F. (2026). Apprendere con l'intelligenza artificiale: trasformazioni dell'esperienza educativa nelle giovani generazioni. In Emotional Futurescapes: Vivere, Apprendere e Relazionarsi con l'IA nelle Giovani Generazioni. IULM University.

Editorial and Edited Proceedings

- Epifania, F., **Marconi, L.**, Matamoros Aragon, R. A., Rosati, R., Frontoni, E., & Romeo, L. (Eds.). (2023). Proceedings of the 2nd Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2022), co-located with the 21st International Conference of the Italian Association for Artificial Intelligence (AI*IA 2022). CEUR Workshop Proceedings, vol. 3463.
- Epifania, F., & **Marconi, L.** (Eds.). (2021). Proceedings of the 1st Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2021), co-located with the 20th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2021). CEUR Workshop Proceedings, vol. 3102.

MANUSCRIPTS AND RESEARCH-TO-PUBLICATION PIPELINE

Selected Manuscripts Under Review or Revision

- Two manuscripts are currently under peer review or revision, addressing meaningful human oversight, Human-AI co-agency, responsible AI governance, and regulatory transparency for AI-enabled medical technologies.
- Additional work is in active revision or resubmission planning on socio-technical Human-AI oversight and structured Human-Generative AI collaboration in higher education.

Current Research-to-Publication Programmes

- A coordinated portfolio of empirical, methodological, and evidence-synthesis studies is progressing toward publication across Human-AI Interaction, AI in Education, and Medical AI.

Selected Research Programmes Progressing Toward Publication

- Human-AI Dialogue Quality (HADQ): methodological validation, psychometric assessment, empirical evaluation, and international collaboration on conversational AI.
- Human-Generative AI Interaction in Higher Education: empirical studies of authentic educational interactions, structured collaboration protocols, cognitive engagement, reliance, and learning outcomes.
- Evidence Synthesis in AI-Supported Education: complementary evidence-mapping and systematic-review work on how students and educators interact and collaborate with Generative AI.
- Explanation Efficacy in Conversational AI: user-centered evidence synthesis examining understanding, trust, reliance, and interaction quality.
- Selective Prediction and Abstention: taxonomy development and experimental benchmarking for responsible AI-supported decision-making.

SELECTED RESEARCH PROJECTS AND FUNDED ACTIVITIES

Interaction Quality and Explanation Efficacy Assessment Tool for Conversational Agents in Heterogeneous Domains

Postdoctoral Research Project, University of Milano-Bicocca (MUDI Lab), 2023-present

- Principal postdoctoral research programme on Human-AI Interaction Quality, including the published theoretical

framework and the development, operationalization, technical implementation, and empirical validation of the Human–AI Dialogue Quality (HADQ) framework and research toolkit for conversational agents across educational, clinical, and heterogeneous domains.

Department of Excellence Project “ReGAINs”

University of Milano-Bicocca, 2023-present

- Organizational and research-mapping contributor to Action O1-A2 on Fair, Accountable and Transparent AI: conducted interviews with faculty members to map and classify departmental research activities, synthesized relevant projects and expertise, and supported coordination and alignment of contributions with the Action and Department of Excellence objectives.

InXAlD - Interaction with eXplainable Artificial Intelligence in (Medical) Decision Making

EU / NextGenerationEU-funded project, University of Milano-Bicocca

- Contributed to MUDI Lab research-coordination and project-support activities in an externally funded project on explainable AI and Human–AI interaction in medical decision-making.

Human-AI Collaboration in Higher Education

University of Milano-Bicocca, 2023-present

- Design and evaluation of structured Human-AI collaboration protocols involving Large Language Models in authentic university settings, investigating interaction quality, calibrated reliance, critical thinking, learning outcomes, and responsible AI adoption in education.

DISCo Experimentation on Generative AI in Higher Education

University of Milano-Bicocca, 2025-present

- Research methodological contributor to the departmental experimentation on a generative AI tutor integrated into Moodle-based university teaching, providing theoretical and methodological support for the Human–AI interaction study design, structured AI-role protocols, interaction-quality evaluation, calibrated reliance, cognitive engagement/offloading, usability, and responsible adoption of Generative AI.

Artificial Intelligence for Dementia Diagnosis and Personalised Care

University of Milano-Bicocca and Clinical Partners, 2024-present

- Research activities on machine learning, multimodal clinical data integration, patient stratification, diagnostic support, and personalised healthcare for dementia and related neurodegenerative conditions.

Artificial Intelligence for Neurodegenerative Diseases and Predictive Medicine

University of Milano-Bicocca and Clinical Partners, 2024-present

- Research activities on predictive modelling, risk stratification, multimodal data integration, and AI-supported decision-making for Parkinson’s disease and other neurodegenerative disorders.

Artificial Intelligence in Medical Device Regulation and Transparency

University of Milano-Bicocca, 2024-present

- Research on regulatory traceability, transparency, governance, and lifecycle monitoring of AI-enabled medical devices, including large-scale analyses of European regulatory infrastructures and medical-device databases.

CLARITY AI - Framework for Medical AI Research Evaluation

University of Milano-Bicocca (MUDI Lab), 2023-present

- Development, validation, and application of the CLARITY AI multidimensional framework and interactive assessment interface for evaluating methodological quality, transparency, robustness, explainability, ethics, usability, and translational readiness of medical AI research.

Structured Medical AI Use-Case Methodology

University of Milano-Bicocca (MUDI Lab), 2025-present

- Contributing to the methodological refinement and extension of a structured approach for specifying, documenting, evaluating, and governing Medical AI use cases.

SANS - Spaceflight Associated Neuro-Ocular Syndrome

International Multi-Institutional Research Initiative - Space Medicine and AI

- Co-scientific lead, with Federico Cabitza, for the University of Milano-Bicocca component of an international initiative involving Città della Salute e della Scienza di Torino, NASA, Politecnico di Torino, University of Houston, University of Sydney, and Victoria University of Wellington; developing AI-supported stress-testing approaches to identify individuals at risk of Spaceflight Associated Neuro-Ocular Syndrome (SANS).

MeTaReL - Metabolic Diseases from Extended Newborn Screening to Adult Transition

Regione Lombardia / ASST Fatebenefratelli-Sacco / Ospedale dei Bambini Vittore Buzzi, 2023-2024

- Medical Data Analyst and Decision-Support Designer for a regional project focused on AI-enabled clinical decision support, healthcare process modelling, governance of heterogeneous clinical data sources, and support for rare and metabolic diseases.

Emotional Futurescapes: Vivere, Apprendere e Relazionarsi con l'IA nelle Giovani Generazioni

IULM University Research Project, 2026

- Member of the Scientific Committee, contributing to the scientific design and interdisciplinary development of research activities on Artificial Intelligence, youth, education, digital society, and the social, cognitive, and emotional implications of Generative AI.

SELECTED COMPETITIVE GRANT DEVELOPMENT

Proposal in Development

European Frontier-Research Proposal in Trustworthy Cognitive AI | 2026

- *Co-developing the scientific concept and international consortium for a proposal on trustworthy cognitive AI, with responsibility for Human-AI interaction, meaningful human oversight, interaction quality, and human-centered evaluation.*

Submitted / Under Evaluation

Regional Competitive Proposal in Trustworthy Predictive Medicine and Clinical AI | 2026

- *Scientific applicant, methodological contributor, and project co-developer; submitted in 2026 and currently under evaluation.*

European Cooperation Proposal on Responsible Generative AI in Adult and Higher Education | 2026

- *Contributor to governance, evaluation methodology, institutional readiness, and educational-resource development; submitted in 2026 and currently under evaluation.*

- Across these proposals, contributions include reliability and uncertainty assessment, clinical decision support, translational validation, Human-AI collaboration, and responsible integration into real-world practices.

Advanced in Competitive Selection

- *Young Researcher grant proposal in multimodal medical AI: principal AI collaborator and scientific contributor; successfully advanced through national triage to the full-proposal stage (2025).*
- Contributed to methodological design, predictive-modelling strategy, multimodal data integration, clinical decision support, and AI-related work packages.

Selected Previous Competitive Grant Applications

• Team member in an international Horizon Europe proposal on trustworthy, explainable, ethical, and Human-Centered AI for healthcare (submitted 2024; call concluded).

- *Principal scientific collaborator in a regional biomedical-research proposal on AI-supported personalized therapies for neurodegenerative disorders (full proposal submitted 2025; call concluded).*
- Contributions included methodological design, predictive modelling, translational healthcare applications, and integration of clinical and computational components.

SELECTED INTERNATIONAL RESEARCH COLLABORATIONS

Selected international research collaborations extend my research program through joint publications, ongoing interdisciplinary research, and European research proposal development across Human-Centered AI, Human-AI Interaction, Responsible AI, Medical AI, and AI in Education.

SANS International Research Collaboration - Space Medicine and AI

International multi-institutional collaboration involving Città della Salute e della Scienza di Torino, NASA, Politecnico di Torino, University of Houston, University of Sydney, Victoria University of Wellington, and University of Milano-Bicocca. Co-scientific lead, with Federico Cabitza, for the University of Milano-Bicocca component focused on AI-supported stress testing and identification of individuals at risk of Spaceflight Associated Neuro-Ocular Syndrome (SANS).

HITZ Center for Language Technology - University of the Basque Country (UPV/EHU), Spain

International research collaboration established through the Human-AI Dialogue Quality (HADQ) programme, linking interaction-quality methodology with healthcare conversational AI, virtual patients, virtual physicians, and Large Language Models. The collaboration is being developed through the planned visiting PhD research stay of Mikel Idoyaga Bazan (HITZ), whose doctoral work is supervised at UPV/EHU by Aitziber Atutxa Salazar and Ander Barrena Madinabeitia, with the aim of advancing HADQ validation and producing joint scientific outputs.

Andreas Holzinger - BOKU University, Vienna / Medical University of Graz, Austria

Research collaboration on Human-Centered AI, meaningful human oversight, automation, and the implications of AI-supported decision-making for human expertise and agency. Current joint work examines how Human-AI configurations can support human judgment while preserving competence, expertise, and responsibility, and has resulted in a joint manuscript currently under review.

Luca Longo - University College Cork, Ireland

Research collaboration on Human-AI Interaction and the multidimensional evaluation of interactions with conversational agents. The collaboration has contributed to the conceptual and methodological development of Interaction Quality, resulting in joint peer-reviewed research reported in the Publications section.

IFIP WG 13.11 / WG 12.14 - Human-Centred Intelligent Interactive Systems

Active international working-group collaboration on a joint research agenda/roadmap addressing critical challenges in user-centred and Human-Centered AI. Contributing to the development of the shared manuscript/working draft, with particular relevance to Human-AI interaction, meaningful human oversight, interaction quality, and responsible intelligent interactive systems.

Alessandro Facchini - IDSIA, USI-SUPSI, Lugano, Switzerland

Ongoing collaboration on Human-Centered and trustworthy AI, with a particular focus on European research initiatives in responsible Generative AI, trustworthy cognitive AI, and Human-AI collaboration.

TEACHING ACTIVITY

Human-Computer Interaction | Adjunct Professor and Course Instructor of Record, MSc in Human-Centered AI, University of Milano-Bicocca, A.Y. 2025-2026, 32 lecture hours

- Core course covering Human-Computer Interaction paradigms, human-centered design, user experience evaluation, Human-AI Interaction, responsible AI, explainability, fairness, transparency, governance, experimental methodologies, and evaluation of AI-enabled interactive systems.

Human-System Interaction | Adjunct Professor / Lecturer, BSc in Artificial Intelligence, University of Milano-Bicocca (inter-university programme), A.Y. 2023-2024, 2024-2025, 2025-2026

- Teaching Human-AI Interaction, interaction design, user-centered evaluation, usability assessment, design science, structured Human-AI collaboration protocols, AI literacy, and responsible use of Generative AI in higher education.

Information Systems / Sistemi Informativi | Lecturer, MSc in Computer Science and MSc in Theory and Technology of Communication, University of Milano-Bicocca

- Teaching activities on information systems, organizational information infrastructures, business-process modelling, socio-technical systems, information-system quality, and digital transformation.

Didattica dell'Informatica | Teaching Tutor, Initial Teacher Education Programme for Secondary-School Teachers, University of Milano-Bicocca, A.Y. 2023-2024, 2024-2025, 2025-2026

- Support the design, delivery, and management of educational activities in computer science education, computational thinking, digital technologies, active-learning methodologies, and educational innovation.

Artificial Intelligence in Healthcare | Lecturer, Second-Level Master "DAI4Health: Innovazione Digitale e Intelligenza Artificiale nel Settore Sanitario", University of Milano-Bicocca, A.Y. 2025-2026

- Delivered invited lectures on Artificial Intelligence in healthcare, clinical decision-support systems, human-centered evaluation of medical AI, and responsible adoption of AI technologies in healthcare practice.

Fuzzy Systems and Evolutionary Computing | Teaching Tutor, BSc in Artificial Intelligence, University of Milano-Bicocca, A.Y. 2023-2024

- Tutoring activities on fuzzy logic, fuzzy control systems, genetic algorithms, evolutionary computation, and particle swarm optimization.

STEMPATHY and LANGUAGES PLUS | Teaching Tutor, DISCo / Liceo Gandhi, A.Y. 2024-2025

- Support the design, delivery, and management of STEM tutoring and educational-support activities for secondary-school students.

Social Simulation | Lecturer, Advanced School in Artificial Intelligence, Brain, Mind and Society (ISTC-CNR / AI2Life), A.Y. 2023-2024

- Teaching computational social science, socio-physics, opinion dynamics, agent-based modelling, and complex social systems.

Python for Social Simulations | Co-Lecturer, Advanced School in Artificial Intelligence, Brain, Mind and Society (ISTC-CNR / AI2Life), A.Y. 2022-2023

- Co-designed the course structure and delivered teaching activities on modelling, simulation, and analysis of complex social systems using Python.

Knowledge Management | Co-Lecturer, MSc in Theory and Technology of Communication, University of Milano-Bicocca, A.Y. 2019-2020, 2020-2021, 2021-2022

- Teaching and tutoring activities on knowledge management, organizational knowledge processes, data-driven systems, and digital platforms.

SUPERVISION AND MENTORING

Contributed to the supervision, mentoring, and tutoring of more than 20 BSc and MSc students in Computer Science, Human-Centered AI, Artificial Intelligence for Science and Technology, Data Science, and Theory and Technology of Communication, serving in roles including principal supervisor, co-supervisor, thesis mentor, internship tutor, and research supervisor.

- Supervised and co-supervised undergraduate and graduate research projects on Human-AI Interaction, interaction quality, conversational agents, Large Language Models, AI in education, explainability, medical AI, healthcare data science, predictive modelling, regulatory aspects of AI-enabled medical devices, and systematic literature reviews.
- Mentored students conducting thesis projects and research internships involving quantitative, qualitative, psychometric, experimental, and mixed-method research methodologies, as well as machine learning and data-science applications in healthcare and educational settings.
- Academic supervisor and company tutor for internships and applied research projects involving Human-AI collaboration, AI-supported learning, evidence synthesis, healthcare analytics, decision-support systems, and responsible AI.
- Supported the development of junior researchers through thesis supervision, scientific writing, research design, literature-review methodologies, data analysis, dissemination activities, and preparation of conference and journal publications.

Selected Current Supervised Research Streams

- Current supervision and mentoring includes research-to-publication projects on Human-Generative AI interaction in higher education, explanation efficacy in conversational agents, abstention/selective prediction and benchmarking, sarcopenia imaging, Parkinson's disease prediction, and dementia-related machine-learning and multimodal analysis.

INTERNATIONAL RESEARCH SUPERVISION AND VISITING RESEARCHERS

Planned International Visiting PhD Research Collaboration | 2026-2027

- Planned research stay of Mikel Idoyaga Bazan, PhD researcher at the HITZ Center for Language Technology, University of the Basque Country (UPV/EHU), Spain, embedded within the HADQ research programme developed as part of my postdoctoral project at DISCo. Home supervisors at UPV/EHU: Aitziber Atutxa Salazar and Ander Barrena Madinabeitia.
- Scientific collaboration focused on methodological consolidation and validation of HADQ, assessment-instrument refinement, empirical evaluation of conversational AI, healthcare conversational agents, virtual patients and virtual physicians, Large Language Models, platform testing, and joint scientific publications.
- My role: scientific coordinator of the HADQ research activities and research mentor for the visiting collaboration, without implying a formal supervisory appointment. Formal departmental approval of the research stay is pending and expected in September 2026; following approval, Prof. Davide Ciucci is expected to serve as the formal DISCo host supervisor.

PROFESSIONAL AFFILIATIONS, SCIENTIFIC SOCIETIES, AND STANDARDIZATION ACTIVITIES

- Member - International Artificial Intelligence in Education Society (IAIED).
- Member - IFIP WG 13.6 Human-Work Interaction Design (HWID).
- Member - National Working Group on Clinical Experimentation of Artificial Intelligence in Healthcare, Istituto Superiore di Sanità (ISS).
- Member - IEC/SC 62A/JWG 9 "Medical Equipment, Software and Systems Using Degree of Autonomy".
- Observer - IFIP WG 13.11 / WG 12.14 Human-Centred Intelligent Interactive Systems.
- Affiliated Researcher - CINI National Laboratory on Data Science (University of Milano-Bicocca Node).
- Member - BReCHS (Bicocca Research Centre in Health Services).
- Member - Digital Transformation and Wellbeing Lab (DiTWEL), University of Milano-Bicocca.
- DISCo Change Agent and departmental liaison for Faculty Development and teaching innovation, University of Milano-Bicocca.
- Department Representative - CEI SC 62 (Medical Electrical Equipment).
- Member - Italian Chapter of the Association for Information Systems (itAIS).

STANDARDIZATION, COMMITTEES, AND INSTITUTIONAL SERVICE

- Contribute to international standardization within IEC/SC 62A/JWG 9 on autonomous medical equipment, software-intensive medical systems, AI-enabled healthcare technologies, human oversight, and trustworthy deployment of AI in clinical environments.
- Participate in CEI SC 62 and related technical activities concerning medical electrical equipment, healthcare software, AI-enabled medical technologies, and the adoption of international standards within the Italian regulatory and technical framework.
- Contributed to IEC TC 62 activities, including support to the development and discussion of the document "Standards Suitable to Be Used for the Development of AI/ML Standards in the Medical Area".

- Contribute to the IFIP WG 13.11 / WG 12.14 joint working-group activity on critical challenges in user-centred AI, including development of a shared research agenda/roadmap and working draft on Human-Centered Intelligent Interactive Systems.
- Support MUDI Lab activities in research coordination, project development, scientific dissemination, mentoring and supervision of students and junior researchers, and interdisciplinary collaboration across educational, clinical, and socio-technical domains.
- Serve as a DISCo Change Agent and departmental liaison for University Faculty Development and teaching-innovation initiatives, supporting needs mapping, coordination between departmental and University-level activities, and the responsible integration of Generative AI and digital innovation in teaching.

PROGRAM COMMITTEES, REVIEWING, AND CONFERENCE ROLES

Conference Service and Program Committees

- Program Committee Member, 27th International Conference on Artificial Intelligence in Education (AIED 2026) - Late-Breaking Results Track.
- Program Committee Member and Reviewer, 26th International Conference on Artificial Intelligence in Education (AIED 2025), including the Late-Breaking Results Track; Additional Reviewer for the Main Conference.
- Program Committee Member, 9th AAI/ACM Conference on AI, Ethics, and Society (AIES 2026).
- Program Committee Member, 8th AAI/ACM Conference on AI, Ethics, and Society (AIES 2025).
- Program Committee Member, 23rd International Conference on Artificial Intelligence in Medicine (AIME 2025).
- Program Committee Member, Human Work Interaction Design (HWID 2026).
- Program Committee Member, 1st International Conference on Explainable AI for Neural and Symbolic Methods (EXPLAINS 2024).
- Program Committee Member, “Algorithmic Authority & AI Influence in Decision Settings: Theories and Implications for Design”, workshop co-located with the 12th International Conference on Human-Agent Interaction (HAI 2024).
- Subreviewer, ACM CHI Conference on Human Factors in Computing Systems (CHI 2025).
- Reviewer, 20th IFIP TC13 International Conference on Human-Computer Interaction (INTERACT 2025).
- Subreviewer / External Reviewer, 12th International Workshop and Conference on Socio-Technical Perspectives in Information Systems (STPIS’26).
- Subreviewer, Innovative Applications of Artificial Intelligence Conference (IAAI 2025).
- Subreviewer, First International Conference on Data Analytics and Intelligent Systems (DAIS 2026).
- Reviewer, IJCAI 2024 Workshop on Explainable Artificial Intelligence (XAI 2024); Reviewer, World Conference on Explainable Artificial Intelligence (XAI 2023; XAI 2024).
- Co-Chair, Co-Organizer, and Program Committee Member, Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2021; AIABI 2022), co-located with AIxIA.
- Organizer, 1st Conference on Artificial Intelligence and Natural Intelligence (IAN 2023), held in celebration of the Centenary of the National Research Council of Italy (CNR).

Conference Chairing Roles

- Session Chair, 26th International Conference on Artificial Intelligence in Education (AIED 2025).
- Session Chair, HCI International 2025, session “Generative AI in Education and Culture”.

Journal Editorial Service

- Associate Editor, Behaviour & Information Technology (Taylor & Francis; Q1 journal).

Journal Reviewing

- Reviewer for leading international journals in Artificial Intelligence, Human-Computer Interaction, Medical Informatics, Digital Health, and Information Systems, including International Journal of Medical Informatics, Information Processing & Management, Artificial Intelligence Review, International Journal of Human-Computer Interaction, Behaviour & Information Technology, Applied Artificial Intelligence, Informatics, Frontiers in Computer Science, Frontiers in Immunology, Patterns, BMJ Open, Computers in Human Behavior: Artificial Humans, Computer Methods and Programs in Biomedicine, Behavioral Sciences, International Journal of Qualitative Methods, Discover Artificial Intelligence, npj Digital Medicine, AI and Ethics, BMC Oral Health, and Digital Health.
- Reviewing activities include numerous journals currently ranked in the first quartile (Q1) of SCImago Journal Rank (SJR).
- Reviewing areas: Human-AI Interaction, Human-Computer Interaction, Medical Informatics, Responsible AI, Explainable AI, AI in Education, Decision-Support Systems, Uncertainty and Robustness, Machine-Learning Evaluation, AI Governance, and Human-Centered Evaluation of Intelligent Systems.

Invited Talks, Keynotes, and Faculty Activities

3rd International Conference on Artificial Intelligence and Teacher Education (ICAITE 2026) | Nagasaki, Japan, 6-8 December 2026

- Invited Speaker (confirmed; forthcoming). Invited contribution on Human-Centered AI, Human-AI interaction, and responsible Generative AI in education; remote participation planned.

Emotional Futurescapes - Learning with Artificial Intelligence | IULM University, 25 June 2026

- Presented the chapter “Apprendere con l'intelligenza artificiale: trasformazioni dell'esperienza educativa nelle giovani generazioni” during the dissemination event of the IULM research project Emotional Futurescapes, addressing Generative AI in higher education, student agency, cognitive delegation, interaction quality, co-regulation, and emotional futurescapes of AI-mediated learning.

Convegno ALOeO 2025 - AI & Salute: Scienza, Visione e Innovazione | Milan, 23 November 2025

- Speaker. Presentation: “AI come guida clinica: tra supporto e trasparenza”, within a multidisciplinary conference on Artificial Intelligence in clinical practice and research, responsible and transparent AI, and healthcare innovation.

AI in Medical Devices and Standardization | CEI Workshop “L'Intelligenza Artificiale nel Settore Elettromedicale: Nuovi Scenari Normativi e Regolatori”, May 2024

- Invited keynote speaker. Presentation: “Integrazione dell'AI nei dispositivi medici: Standard di qualità e valutazione secondo i principi IEC”.

AI in Spinal Surgery | La Chirurgia Vertebrale negli Adulti e negli Anziani, April 2024

- Faculty member and invited speaker. Presentation: “Come la AI può aiutarci nel ridurre il rischio di complicanze”.

AI in Ophthalmology and Clinical Decision-Making | Retina Update 2024 and Ospedale San Giuseppe, February-March 2024

- Invited speaker on medical AI, Human-AI Interaction in clinical environments, uncertainty-aware decision support, and AI-assisted clinical decision-making.

USL Toscana Seminar | 2025

- Invited seminar on Artificial Intelligence, healthcare innovation, clinical decision support, and responsible adoption of AI technologies in healthcare.

CRUI Event on AI in Teaching and Teacher Training | 2025

- Invited presentation on Artificial Intelligence in education, AI literacy, teacher-training pathways, and responsible use of Generative AI in educational contexts.

Scientific Conference Presentations

AIED 2025 - International Conference on Artificial Intelligence in Education

- Presentation of research on Human-AI collaboration and the use of Large Language Models as academic tutors in higher education.

HCII 2025 - International Conference on Human-Computer Interaction

- Presentation of “Evaluating Large Language Models as Academic Tutors: A Human-AI Collaboration Approach for Structured Literature Review” in the session “Human-Centered Design and Evaluation of Generative AI Systems”.

HWID 2024 - IFIP Working Conference on Human Work Interaction Design

- Presentation of “Humans in the Group, Computers in the Coop. Comparison of Individual and Collective Improvement in Cognitive Tasks in Adjunct AI Settings”, investigating Adjunct AI and structured Human-AI collaboration protocols.

ItAIS 2025 - Conference of the Italian Chapter of AIS

- Presentation of research on human oversight, Human-AI collaboration, and governance of AI-supported decision-making.

CIBB 2025 - Conference on Computational Intelligence methods for Bioinformatics and Biostatistics

- Presentation of research on Artificial Intelligence applications in healthcare, predictive modelling, and clinical decision support.

HC@AIxIA 2024 - 3rd Workshop on Artificial Intelligence for Healthcare

- Presentation of the CLARITY AI framework for the multidimensional evaluation of methodological quality, transparency, robustness, and translational readiness in medical AI research.

HAI 2024 - Workshop “Algorithmic Authority & AI Influence in Decision Settings: Theories and Implications for Design”

- Presented the accepted workshop contribution “Perceiving AI as an Epistemic Authority: A Preliminary Investigation into Human Attribution of Authority to AI” (with Frida Milella and Federico Cabitza) at the 12th International Conference on Human-Agent Interaction (HAI 2024).

DIDAMATiCA 2020-2021

- Presentations on Artificial Intelligence in education, explainable recommendation systems, personalized learning, and teacher-AI collaboration.

CSEDU 2019-2020 - International Conference on Computer Supported Education

- Presentations on recommender systems, explainable AI, social recommendations, and educational technologies.

AIxIA / XAI Workshops

- Presentations on PhD research papers related to explainable recommendation systems, Human-AI Interaction, and educational AI applications.

Public Engagement, Outreach, and Knowledge Transfer

AI Literacy, Critical Thinking, and Educational Outreach on Artificial Intelligence (2015–present).

- Design and delivery of educational initiatives for students, educators, and schools on Artificial Intelligence, Generative AI, critical thinking, cognitive delegation, responsible AI use, creativity, judgment, and human agency, including the outreach format "Superpoteri e Superinganni dell'Intelligenza Artificiale: chi tiene il timone?" introduced in 2025 and subsequently expanded.

Milano Digital Week | 2022, 2023, 2026

- Speaker, organizer, and contributor to public-engagement initiatives on Artificial Intelligence, medical AI, standardization, digital innovation, and responsible technology adoption.

Artificial Intelligence and Natural Intelligence (IAN 2023) | CNR Centenary Event

- Speaker. Presentation: "Intelligenza Artificiale e Sistemi Complessi nella Scuola Secondaria: interdisciplinarietà e meta-competenze per l'Educazione del terzo millennio".

Digital Learning and AI for Education | Fiera Didacta 2023, Milano Digital Week 2022, Assintel Seminars 2021

- Talks and dissemination activities on digital learning, personalized education, recommender systems, Artificial Intelligence, and educational innovation.

Medical AI, Standards, and Responsible Innovation

- Dissemination and professional-training activities for healthcare professionals, engineers, educators, and public stakeholders on Human-AI Interaction, trustworthy AI, medical AI, standardization, and governance of intelligent systems.

"L'Intelligenza Artificiale in Oftalmologia: tra innovazione e prudenza" | Occhi Aperti (A.P.R.I. - ODV), March 2024

- Co-authored science-communication article on Artificial Intelligence in ophthalmology, addressing innovation and the need for cautious, responsible adoption in clinical practice.

BookCity Milano 2023 - BCZeta / Fondazione Arnoldo e Alberto Mondadori | 19 November 2023

- Invited speaker at "Intelligenza Artificiale: come e quanto ci cambierà la vita", a public BookCity Milano event on current and future AI applications, societal implications, risks, and the responsible use of AI to support human capabilities.

Selected Media Interviews and Research Coverage

SANS International Research Initiative - Corriere della Sera / La Repubblica / InSaluteNews | 2024-2025

- Research coverage of the international Spaceflight Associated Neuro-Ocular Syndrome initiative involving NASA and partners in Italy, the United States, Australia, and New Zealand; coverage highlighted the University of Milano-Bicocca contribution and, in La Repubblica, identified Federico Cabitza and Luca Marconi as scientific leads of the UniMiB component.

Radio Activa - "L'AI nel 2024: una conversazione con l'esperto e ricercatore Luca Marconi" | 30 January 2024

- Featured expert interview on Generative AI, Human-AI interaction, the future of work, deskilling and upskilling, research at the University of Milano-Bicocca, and AI regulation.

Il Sole 24 Ore / InfoData - Data Jobs | 2021, 2022

- Featured in two Data Jobs interviews/profile pieces on Artificial Intelligence, data-science work, knowledge elicitation, machine-learning skills, educational technologies, and the evolution of an industry-based PhD research trajectory.

PREVIOUS PROFESSIONAL EXPERIENCE

Business Strategist & AI Researcher / Executive PhD Candidate | Social Thingum, Nov 2019-Mar 2023

- Strategic, tactical, and operational management of business, strategy, R&D, fundraising, and innovation activities in a research-oriented company active in AI and educational technologies.
- Co-responsible for research and development on AI modelling, data analysis, UX, and interaction design; supervised internship students and junior collaborators.

Business Developer & Data Science Fellow | Social Thingum, Feb 2018-Jun 2019

- Designed and developed data analytics methods and algorithms; supported fundraising, strategy, marketing, and top management activities.

Research Advisor & Consultant | Davide Greco Consultant, Oct 2017-Mar 2021

- Collaborated on quantitative modelling of metrics, methodologies, and decision-support systems for media intelligence and strategic financial communication.

Systems Analyst and Project Manager | Accento s.r.l., Oct 2014-Sep 2016

- Contributed to system and conceptual design of a data-mining software for media intelligence and to the strategic model of a start-up.

SKILLS AND METHODS

Research Methodologies

- Systematic, rapid, integrative, narrative, and mixed-method reviews; evidence synthesis; grounded theory; qualitative coding and thematic analysis; focus groups; survey and questionnaire design; psychometrics and scale development; usability/UX and Human-AI Interaction evaluation; quantitative and qualitative analysis; behavioural, comparative, experimental, and quasi-experimental studies; framework and protocol development and validation.

Artificial Intelligence and Data Science

- Machine-learning evaluation; clinical decision support; predictive modelling; clustering and unsupervised learning; explainable AI; uncertainty quantification; robustness and external validation; selective prediction and abstention; recommender systems; NLP, conversational agents, and Large Language Models; social simulation and complex-systems/agent-based modelling.

Human-AI Interaction, Governance, and Responsible AI

- Human-AI collaboration protocols; interaction-quality and explanation-efficacy assessment; meaningful human oversight and calibrated reliance; algorithmic authority; AI governance; trustworthy and responsible AI; autonomy, accountability, and expertise preservation; AI literacy; socio-technical evaluation; organizational AI integration; AI-induced deskilling and upskilling.

Medical AI and Healthcare Informatics

- Medical AI evaluation and clinical validation; robustness, external validation, and translational/methodological-quality assessment; healthcare data science and multimodal integration; uncertainty-aware clinical decision support; digital health and AI-enabled medical technologies; healthcare AI governance and standardization.

Standardization, Information Systems, and Research Leadership

- AI standardization and regulatory frameworks (IEC, CEI, healthcare AI governance); information-systems and socio-technical analysis; digital transformation; interdisciplinary research-project development; competitive grant writing and research-funding development; scientific coordination and project management; stakeholder engagement and knowledge transfer; academic mentoring and research leadership.

RESEARCH PROGRAM - VISUAL OVERVIEW

The following figures provide a visual synthesis of the architecture, development, and cross-domain articulation of my research program.

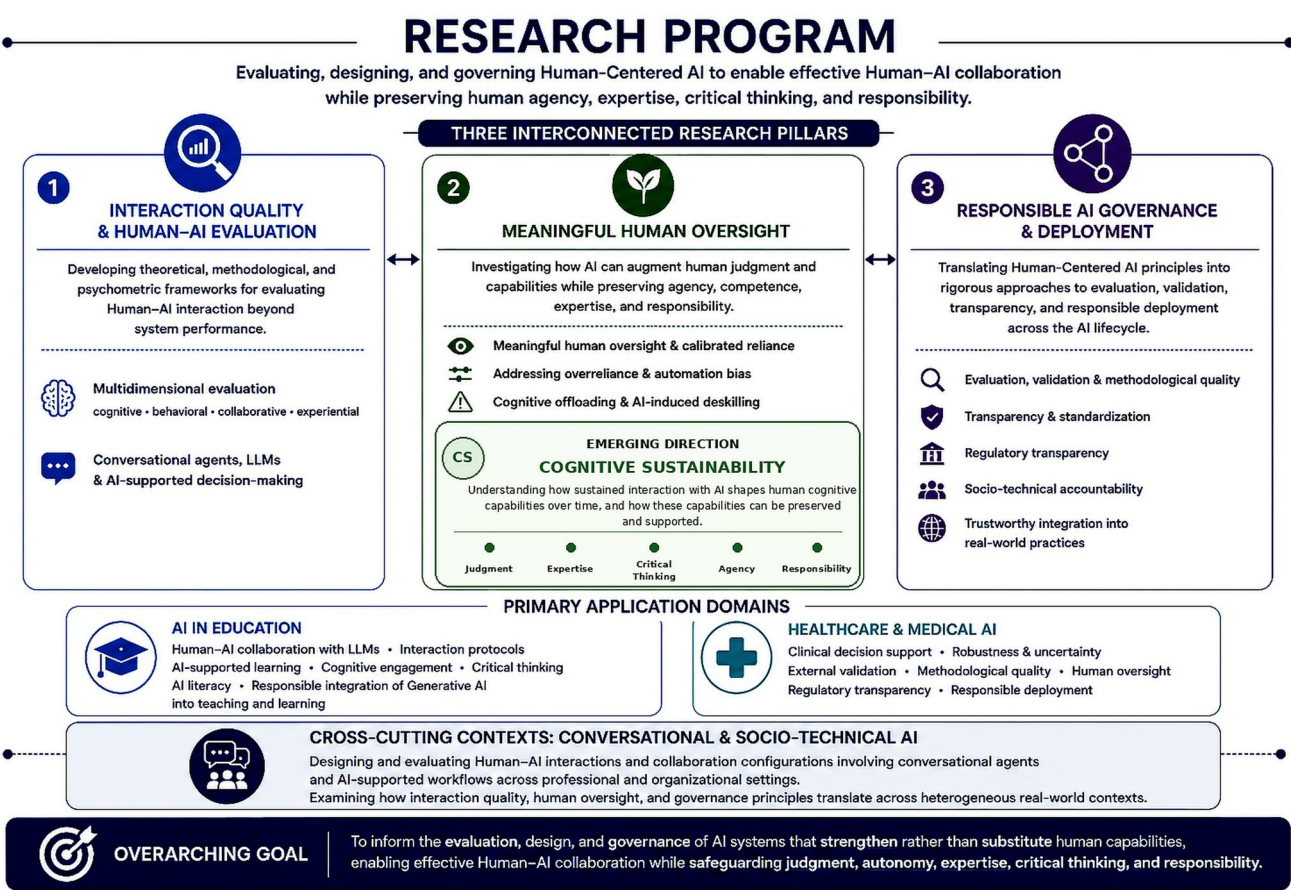


Figure 1. Research program architecture: interconnected research pillars, primary application domains, and cross-cutting contexts.

RESEARCH TRAJECTORY AND EMERGING AGENDA

From predictive modelling and complex systems to an integrated Human-Centered AI research program

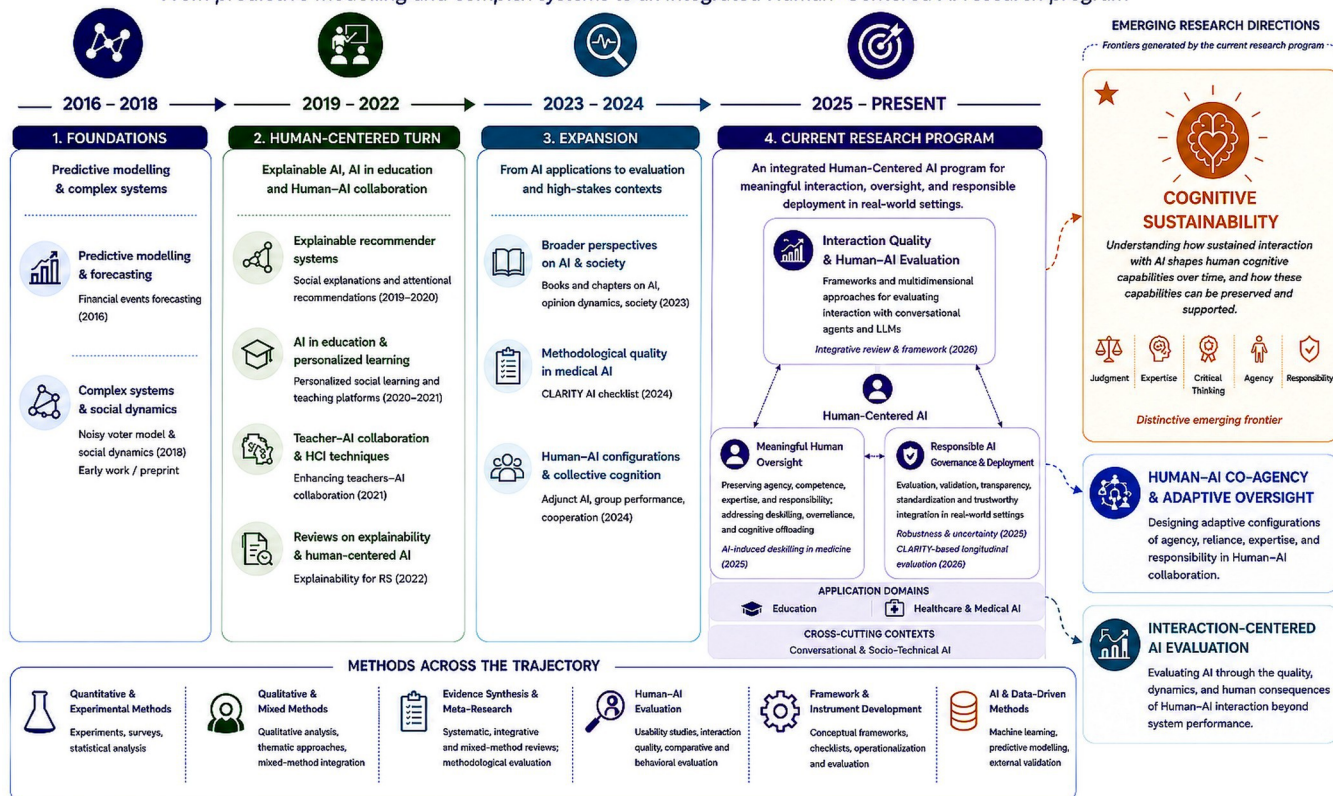


Figure 2. Research trajectory from early methodological foundations to the current Human-Centered AI research program and its emerging research directions.

I hereby declare, pursuant to Articles 46 and 47 of Presidential Decree No. 445 of 28 December 2000 (Italian Consolidated Act on Administrative Documentation), that the information contained in this Curriculum Vitae is true and correct.