Antonio Piccinno

Associate Professor of Computer Science

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Profile

My research connects Human–Computer Interaction and Software Engineering, with a focus on End-User Development, meta-design, human-centred and symbiotic AI, accessible interactive systems, usable cybersecurity and e-health. I am a founding member of the Interaction, Visualization, Usability & UX Laboratory at the University of Bari, where I coordinate research on End-User Development and the interplay between Human–Computer Interaction and Software Engineering. My activities combine research leadership, teaching, doctoral supervision and university digital transformation.

Work experience

March 2020 – present | **Associate Professor**

Department of Computer Science, University of Bari Aldo Moro. Research, teaching, doctoral supervision and institutional service. Scientific disciplinary field INFO-01/A, formerly INF/01.

May 2009 – March 2020 | **Tenured Assistant Professor and Researcher**

University of Bari, initially Faculty of Economics and subsequently Department of Computer Science.

April 2005 – April 2009 | **Postdoctoral Research Fellow**

University of Bari, Department of Computer Science. Software environments for End-User Development.

Education and qualifications

2005 | **PhD in Computer Science**

University of Bari. Thesis: Software Environments for Supporting End-User Development.

2001 | **Degree in Computer Science**

University of Bari. Laurea in Scienze dell'Informazione; final grade 110/110 cum laude.

National Scientific Qualifications for Full Professor: Computer Science, 01/B1, and Information Processing Systems, 09/H1; obtained in 2021 and valid until 2033, according to the supplied CVs.

Language skills

Italian: native. English: C1, with C2 reading. French: A1, with A2 reading and writing. CEFR self-assessment from the July 2026 Europass CV.

Research leadership

My research develops methods and tools that help people understand, adapt and shape digital systems. Areas of application include human–AI collaboration, conversational accessibility, smart environments, speech therapy, cybersecurity and software development.

2025–2027 | **SMART**

Scientific coordinator of the University of Bari unit. AI and no-code technologies for adaptable recruitment, talent matching and ranking; PR Puglia FESR FSE+ programme.

January 2025 – February 2026 | **PROTECT**

Principal investigator and coordinator of the University of Bari unit. Conversational AI to improve web accessibility and inclusion; PRIN 2022 PNRR.

2023–2025 | **FAIR — SYMBIOTIC AI**

Leader of the Evaluation and Generalizability task in Spoke 6, contributing to methods for designing and evaluating symbiotic AI systems.

2022–2024 | **SmaTh4SD**

Principal investigator. AI and IoT technologies supporting speech therapy for children, therapists and caregivers; University of Bari Horizon Europe Seeds scheme.

2022–2024 | **SIMPLe**

Scientific coordinator of the University of Bari unit. Technologies for assisted indoor cultivation, environmental monitoring and resource efficiency; PSR Puglia.

Further research leadership includes an industrial contract with Auriga on usability and UX evaluation, WIFI4UNIDIB, and work units in EDOC@WORK 3.0, LOGIN, DIPIS, EUD-Net, FAIRSNET and FAIRWIS. Research participation also includes SERICS projects SCAI and SuReCare, addressing usable security and secure remote healthcare.

Institutional appointments

Appointed June 2023 | **President of the University Computer Services Centre**

Coordination of university IT infrastructure and digital services. Activities include digital doctoral thesis submission, alumni accounts, research ethics workflows and university software services.

Appointed October 2023 | **Rector's Delegate for Digitalisation at CRUI**

Coordination of University of Bari participation in digital initiatives and assessment of needs for educational AI services.

Appointed June 2023 | **Departmental Delegate for IT Services**

Department of Computer Science. Coordination of digital services, e-learning, connectivity and computing infrastructure.

Teaching and research supervision

University teaching includes Software Engineering at undergraduate level; Cyber-Security Capstone Project, IoT Security and Cloud Computing at postgraduate level; and doctoral courses on End-User Development, interaction paradigms, cloud security and quantum programming for software engineering. I have supervised more than 100 bachelor's and master's theses. Member of doctoral programme boards at the University of Bari since 2010/2011, through Cycle XLII.

PhD supervision

- Mattia Colucci, Cycle XLII: safety and adversarial robustness in AI-based autonomous systems. Co-supervisor: Gennaro Vessio.
- Maryam Samiepour, Cycle XLII: AI-driven credit intelligence for micro and small craft enterprises. Co-supervisor: Pierpaolo Basile.
- Alfonso Pio Pretorino, Cycle XLI: Secure Human-Centred Generative AI.
- Miriana Calvano, Cycle XXXIX: human-centred design of symbiotic systems.
- Sohail Qaisar, Cycle XXXIX: adaptive user behavioural analytics for cybersecurity.
- Vincenzo Gattulli, Cycle XXXVII: biometrics for safety and health.
- Fabio Cassano, Cycle XXXI: End-User Development for the smart home; PhD awarded in 2019.

PhD co-supervision: Antonio Curci, National PhD in Artificial Intelligence, on symbiotic intelligent systems; and Maria Cristina Lomuscio, PhD in Digital Innovation and e-Health, on machine learning for molecular property prediction. Research fellowship supervision includes Chaudhry Muhammad Nadeem Faisal and Andrea Esposito. External thesis reviewing and doctoral examination service at Italian and international universities.

Scientific service and recognition

- Chair of the IS-EUD Steering Committee since June 2025; committee member since 2012.
- Expert Member of IFIP TC13 since September 2023 and member of WG 13.2. EUSSET Steering Committee member, 2016–2020.
- Full Papers Co-Chair, INTERACT 2021 and 2023; Long Papers Co-Chair, CHItaly 2025; Program Co-Chair, IS-EUD 2011.
- Editorial board and Associate Editor service for Behaviour & Information Technology, IEEE Access and Advances in Human-Computer Interaction; guest editing and international conference reviewing.
- IFIP Service Award 2024; Best Track Paper Award, ItAIS 2010; Best Paper Award, HSI 2009.

International research visits include the University of Colorado Boulder and the University of Castilla-La Mancha. University–industry and outreach activities include CrASte, CAFE and computational thinking in primary schools. Co-inventor of Italian patent 1401512 on multimedia support for visits to sites of interest.

Selected publications

Twelve journal articles and two book chapters selected to represent recent research and core contributions to End-User Development. Full lists: https://ivu.di.uniba.it/people/piccinno and https://dblp.org/pid/31/6578.html

Journal articles

1. (2026) C.M. Nadeem Faisal, A. Piccinno, M. Gonzalez-Rodriguez, D. Fernandez-Lanvin, J. De Andres Suarez. Impact of UI Design Patterns on Cognitive Load, Perceived Usability, and Confidence to Use Critical Healthcare Devices. Behaviour & Information Technology, advance online publication, pp. 1–27. https://doi.org/10.1080/0144929X.2026.2732018
2. (2026) M. Calvano, C.B. Caporusso, A. Curci, R. Lanzilotti, D. Massaro, A. Piccinno, A. Ragone. LLMs to Augment Evaluators in Scripting Usability Tasks: An Exploratory Study. International Journal of Human–Computer Interaction, advance online publication, pp. 1–23. https://doi.org/10.1080/10447318.2026.2714305
3. (2026) A. Esposito, R. Lanzilotti, M. Matera, A. Piccinno, L. Piro, E. Pucci, G. Ragone. Conversational AI for Digital Accessibility: An Experimental Study Involving Blind and Low Vision Users. International Journal of Human–Computer Interaction, advance online publication, pp. 1–24. https://doi.org/10.1080/10447318.2026.2659951
4. (2026) V.S. Barletta, D. Caivano, C. Catalano, S. del Vescovo, A. Piccinno. Adversarial Manipulation of CAN Bus IDS. Discover Artificial Intelligence. https://doi.org/10.1007/s44163-026-00951-8
5. (2026) M. Calvano, A. Curci, G. Desolda, A. Esposito, R. Lanzilotti, A. Piccinno. Building Symbiotic Artificial Intelligence: Reviewing the AI Act for a Human-Centred, Principle-Based Framework. Minds and Machines, 36, article 1. First published online in 2025. https://doi.org/10.1007/s11023-025-09753-w
6. (2025) F. Greco, G. Desolda, P. Buono, A. Piccinno. Enhancing Phishing Defenses: The Impact of Timing and Explanations in Warnings for Email Clients. Computer Standards & Interfaces, 93, 103982. https://doi.org/10.1016/j.csi.2025.103982
7. (2025) G. Desolda, A. Esposito, F. Greco, C. Tucci, P. Buono, A. Piccinno. Understanding User Mental Models in AI-Driven Code Completion Tools: Insights from an Elicitation Study. International Journal of Human-Computer Studies, 205, 103648. https://doi.org/10.1016/j.ijhcs.2025.103648
8. (2024) G. Desolda, A. Esposito, R. Lanzilotti, A. Piccinno, M.F. Costabile. From Human-Centered to Symbiotic Artificial Intelligence: A Focus on Medical Applications. Multimedia Tools and Applications, first published online in 2024. https://doi.org/10.1007/s11042-024-20414-5
9. (2024) M.K. Lárusdóttir, R. Lanzilotti, A. Piccinno, I. Visescu, M.F. Costabile. UCD Sprint: A Fast Process to Involve Users in the Design Practices of Software Companies. International Journal of Human–Computer Interaction, 40(23), pp. 8360–8377. First published online in 2023. https://doi.org/10.1080/10447318.2023.2279816

10. (2019) B.R. Barricelli, F. Cassano, D. Fogli, A. Piccinno. End-User Development, End-User Programming and End-User Software Engineering: A Systematic Mapping Study. Journal of Systems and Software, 149, pp. 101–137. https://doi.org/10.1016/j.jss.2018.11.041
11. (2018) D. Caivano, D. Fogli, R. Lanzilotti, A. Piccinno, F. Cassano. Supporting End Users to Control Their Smart Home: Design Implications from a Literature Review and an Empirical Investigation. Journal of Systems and Software, 144, pp. 295–313. https://doi.org/10.1016/j.jss.2018.06.035
12. (2007) M.F. Costabile, D. Fogli, P. Mussio, A. Piccinno. Visual Interactive Systems for End-User Development: A Model-Based Design Methodology. IEEE Transactions on Systems, Man, and Cybernetics — Part A: Systems and Humans, 37(6), pp. 1029–1046.

Book chapters

13. G. Fischer, D. Fogli, A. Piccinno (2017). Revisiting and Broadening the Meta-Design Framework for End-User Development. In New Perspectives in End-User Development, Springer, pp. 61–97.
14. M.F. Costabile, D. Fogli, P. Mussio, A. Piccinno (2006). End-User Development: The Software Shaping Workshop Approach. In End User Development, Springer, pp. 183–205.

Bibliometric indicators

30 October 2026, author-supplied figures. Scopus: 197 documents; 2,221 citations from 1,426 documents; h-index 24. Google Scholar: 3,759 citations; h-index 32; i10-index 84. Since 2021: 1,914 citations; h-index 22; i10-index 47.

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