



Tommaso Zambon

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Gender: Male **Date of birth:** 07/04/1996 **Nationality:** Italian

ABOUT MYSELF

I recently submitted my PhD thesis, *Citizen Science-Informed Co-Design: Community Devised Technologies for Sustainability Awareness*, as part of the Computer Science and Engineering program at the University of Bologna. My research focuses on Human-Computer Interaction (HCI), with an emphasis on participatory and community-driven approaches.

I hold a Master's Degree in *Management of Organizations and Territorial Networks* from the University of Trento, where I graduated with honors. My thesis, *The "Learning Body" in Hostile Environments: Technological Innovation for Speleology Through Qualitative Analysis*, combined qualitative research and technological innovation to address unique challenges in speleology.

Throughout my academic career, I have prioritized qualitative and participatory research methods, with a strong focus on fostering technological and social innovation.

EDUCATION & TRAINING

[03/01/2022 - 06/01/2025]

PhD in Computer Science and Engineering - INF/01

Univeristy of Bologna

<https://disi.unibo.it/en/teaching/phd-programmes/computer-science-and-engineering>

City: Cesena | **Country:** Italy | **Field(s) of study:** Human-Computer Interaction | **Final grade:** Thesis currently in review | **Thesis:** Citizen Science-Informed Co-Design: Community Devised Technologies for Sustainability Awareness

Supervisor: Prof. Catia Prandi

Co-Supervisor: Prof. Chiara Bassetti

As part of my doctoral studies at the University of Bologna (PhD in Computer Science and Engineering), I explored the integration of **Citizen Science** and **Human-Computer Interaction (HCI)** to co-design interactive digital tools fostering sustainability awareness. My thesis, *Citizen Science-Informed Co-Design: Community Devised Technologies for Sustainability Awareness*, examined participatory methods across four case studies: *GameOn!* (a serious game promoting sustainability and active citizenship), *CitizER Science in Action* (a workshop-based approach for engaging teenagers in citizen science), *AlmAware* (a platform for sustainability awareness among university students), and *Adrinclusive* (an initiative promoting inclusive tourism for individuals with dementia). Leveraging iterative prototyping, co-design workshops, and mixed-method evaluations, I demonstrated how participatory approaches can democratize knowledge, promote sustainable behaviors, and empower diverse communities.

[16/09/2018 - 08/03/2021]

Master Degree in Management of Organizations and Territorial Networks - SPS/10

University of Trento <https://www.sociologia.unitn.it/en>

Address: 38121, Trento (Italy) | **Field(s) of study:** Sociology | **Final grade:** 110 cum laude | **Thesis:** The “learning body” in hostile environment: technological innovation for speleology through qualitative analysis.

Relator: Prof. Chiara Bassetti

Co-relator and company tutor: Dr. Eleonora Mencarini

Co-relator: Prof. Vincenzo D'Andrea

During my internship at the Bruno Kessler Foundation (FBK), I worked on the ACROSS project, contributing to an innovative tool's development to support the teaching of caving techniques and enhance communication between trainees and trainers in underground environments. Leveraging qualitative data analysis, the project culminated in the prototype's creation: a smartwatch-like wearable device. This device enables cavers to exchange simple messages, improving group communication while facilitating the transmission of risk and emergency information to enhance safety and reduce hazards during caving activities.

- Ethnography in a hostile environment (cave)
- Semi-structured interviews
- Interview transcription and analysis

[08/2015 - 09/2018] **Bachelor Degree in Sociology - SPS/07**

University of Trento <https://www.sociologia.unitn.it/en>

Address: 38121, Trento (Italy) | **Field(s) of study:** Sociology | **Thesis:** Never Again: movimenti sociali e social network

WORK EXPERIENCE

University of Bologna <https://www.unibo.it/it>

City: Cesena | **Country:** Italy | **Email:** tommaso.zambon3@unibo.it | **Name of unit or department:** Department of Computer Science and Engineering | **Business/sector:** Education

[01/12/2025 - 30/09/2026] **University tutor**

Organized and facilitated co-design workshops focused on technologies supporting adolescents' mental well-being; contributed to research through data collection and analysis; delivered lectures to foster participatory learning; and conducted testing and evaluation of a mobile app prototype with workshop participants.

Romagna Tech

City: Forlì | **Country:** Italy

[05/2023 - 31/03/2025] **Project manager**

I led the *GameOn!* (Creative Europe) and *Adrinclusive (Interreg Italy-Croatia)* projects, focusing on innovative solutions development in education and inclusive tourism. I coordinated multidisciplinary and international teams, collaborating with diverse partners to achieve project objectives. I ensured the timely delivery of project deliverables by employing qualitative research methods, including co-design workshops and participatory evaluations, to develop user-centered tools such as the serious game *GameOn!* (promoting sustainability) and the *Adrinclusive* digital platform (supporting dementia-friendly tourism). I organized and facilitated events, workshops, and focus groups to gather insights, refine solutions, and engage stakeholders. Through this experience, I built expertise in project planning, stakeholder communication, and integrating technological innovation with social impact.

SER.IN.AR - University of Forlì

City: Forlì | **Country:** Italy

[23/11/2024 - 23/11/2024]

Workshop facilitator

Co-conduction of two workshops, the first themed around Citizen Science and Co-Design with middle school students, and the second theme around Minecraft as an educative tool where participants recreated Dante's Inferno and pieces of the text.

The co-conduction required soft-skills necessary to work with young students and engage them in co-design processes.

University of Trento

City: Trento | **Country:** Italy

[01/09/2023 - 10/09/2023]

Local chair - Ethnography and Qualitative Research International Conference, 9th edition

As the Local Chair for the Ethnography and Qualitative Research International Conference, I coordinated the logistical aspects of the event, including venue arrangements, scheduling, and on-site management. Additionally, I managed all secretarial responsibilities, serving as the first point of contact for participants and guests via email, and ensuring timely and professional communication. I also oversaw the conference website, maintaining up-to-date information and facilitating user access. This role required good organizational skills, attention to detail, effective communication, as well as the ability to collaborate with international scholars and participants to ensure the conference's success.

Fondazione Bruno Kessler

City: Povo (TN) | **Country:** Italy

[01/2020 - 09/2021]

University research assistant

Through my work on the ACROSS project, I developed specialized expertise in applying **Human-Computer Interaction (HCI)** principles to address challenges in coordination, communication, and safety in wild outdoor environments. My research focused on training speleologists, exploring how physical, cognitive, and emotional demands in hostile underground environments influence learning and teamwork. I employed qualitative research methods, including semi-structured interviews and thematic analysis, to uncover the needs of trainees and instructors. These insights informed the design of technology to enhance group awareness, communication, and safety. Additionally, I gained experience in bridging user-centered design with exploratory activities, contributing actionable design implications for technology supporting outdoor sports and emergency coordination.

Unviersità degli Studi di Trento

City: Trento | **Country:** Italy

[31/08/2018 - 31/05/2021]

University tutor

I was responsible for mentoring 15 first-year Sociology students, serving as their primary point of contact for any issues related to their university experience. I conducted regular one-on-one interviews with each student to support their transition to university life, providing guidance on academic matters, navigating bureaucratic processes, and facilitating communication between students and professors when needed.

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING: C2 **READING:** C2 **WRITING:** C1

SPOKEN PRODUCTION: C1 **SPOKEN INTERACTION:** C1

Spanish

LISTENING: B2 **READING:** B2 **WRITING:** B1

SPOKEN PRODUCTION: B1 **SPOKEN INTERACTION:** B1

SKILLS

Atlas.ti | Microsoft Office | Zoom | Google Drive | Microsoft Excel | Microsoft Powerpoint | Microsoft Word | Google Docs | LaTeX (very good) | Wordreference

PROJECTS

[01/03/2024 - 31/08/2026]

Adrinclusive

Adrinclusive is an initiative aimed at promoting inclusive tourism for individuals with cognitive impairments, particularly those with dementia, within the Italy-Croatia Interreg region. The project utilizes participatory design to develop digital tools and frameworks that support dementia-friendly tourism experiences. By engaging stakeholders from tourism, caregiving, and policy sectors, **Adrinclusive** fosters collaboration to create accessible solutions that enhance safety, comfort, and inclusivity, ultimately contributing to sustainable and socially responsible tourism practices.

I gained expertise in facilitating focus groups, conducting qualitative research, and employing co-design methods. I deepened my understanding of Severity Distribution Dynamics (SDD) and developed skills in designing adaptable tools, bridging cross-sector perspectives, and translating insights into actionable recommendations for inclusive tourism.

[09/2022 - Current]

CitizER Science in action

CitizER Science in Action is a co-design workshop exercise that engages participants in a simulation of real Citizen Science activities. Starting with paper-based activities that mirror actual scientific practices, the workshop guides participants through collaborative exercises to design innovative solutions. The outcome is the creation of paper-based mock-up prototypes for apps aimed at supporting Citizen Science, incorporating elements of game thinking to enhance engagement and usability.

I gained expertise in facilitating co-design exercises simulating real-world Citizen Science activities. I honed skills in guiding collaborative processes, using game-thinking principles to boost creativity, and creating paper-based prototypes for user-centered app designs, blending scientific practices with participatory methods to develop innovative solutions.

Link:

<https://digitale.regione.emilia-romagna.it/citizer-science/laboratori/laboratori-per-ragazzi>

[31/05/2023 - 30/04/2024]

GameOn! (Creative Europe)

GameOn! is an educational serious game developed within *Minecraft Education Edition*, designed to promote peace, inclusivity, and sustainability. The project integrates **Citizen Science** principles and active citizenship to engage young learners in interactive, narrative-driven experiences aligned with the **Sustainable Development Goals (SDGs)**. Through hands-on problem-solving and collaborative gameplay, *GameOn!* fosters critical thinking, teamwork, and a deeper understanding of global challenges.

I gained expertise in designing educational games, integrating Citizen Science and active

citizenship. I developed skills in creating interactive, narrative-driven experiences that engage learners in problem-solving, teamwork, and critical thinking aligned with the SDGs.

Link: <https://www.gotoolkit.eu/it/gioco/>

[10/2022 - 11/2023] **AlmAware**

AlmAware is a digital platform designed to promote sustainability awareness among university students. Developed through participatory design processes, the platform encourages students to explore and adopt sustainable behaviors in their daily lives. By integrating gamification elements and interactive features, **AlmAware** fosters engagement and provides a user-friendly interface for accessing educational resources, tracking sustainable actions, and building a community centered on environmental responsibility.

I gained expertise in conducting semi-structured interviews and co-design workshops, which were integral to the construction and conduction of the co-design process that led to the platform's prototype. I developed skills in integrating gamification and interactive features to engage users and encourage sustainable behaviors, while also designing user-friendly interfaces and building a community centered on environmental responsibility.

Link:

<https://edu.unibo.it/it/ricerca/progetti-di-ricerca/periodo-di-programmazione-2014-2020/progetti-ateneo/almaidea>

[11/09/2022 - 31/03/2023] **OBAMA NEXT (EU Horizon project)**

During my time at Aarhus University in Copenhagen, I contributed to an EU-funded research initiative developing an integrated toolbox for observing and mapping marine ecosystems and biodiversity across European seas. The project combines traditional monitoring with new technologies (e.g., remote sensing, eDNA, citizen science) to generate accurate, policy-relevant information products that inform conservation strategies and environmental decision-making.

[01/2020 - 05/2020] **Expertise and participation: inter-organizational dynamics and transmission of knowledge**

Qualitative research (telematic interviews and ethnography) to explore the school-museum relation during the covid-19 pandemic with a focus on the effects of transmission of knowledge.

[31/08/2019 - 31/01/2020] **Partecip-Ala: to innovate social participation**

As part of the course on Informative Systems, I worked on a project for the social-technological innovation for the city of Ala. Ethnography and semi-structured interviews were used as the main methods for the research. The outcome was an offline prototype of an application that aimed to improve communication between institutions, voluntary associations, and citizens for the organization of events in the city to foster urban social life.

[01/2019 - 05/2019] **World Café: Feeding the Planet**

I conducted and organized - in collaboration with the University of Trento and Muse (Museum of Science) - a participatory design event open to the public, where the main topic of discussion were the Sustainable Development Goals.

PUBLICATIONS

[2025] [**Empowering teenagers in the digital era: a workshop for digital literacy and civic engagement**](#)

Reference: Zambon, T., Ceccarini, C., & Prandi, C. (2025). Empowering teenagers in the

digital era: a workshop experience for digital literacy and civic engagement. CoDesign, 1–31. <https://doi.org/10.1080/15710882.2025.2592835>

To better equip teenagers as informed and active participants in an increasingly digital and connected world, we designed an innovative workshop-based methodology. The workshop integrates three key approaches: (i) design thinking, to foster creativity and collaboration in digital content and technology creation; (ii) citizen science, to explore data, citizenship, and civic engagement; and (iii) game thinking, to enhance problem-solving through playful digital tools. We conducted four editions of the workshop, involving 149 Italian students (aged 16–18). Each edition addressed a specific sustainability-related challenge, such as tourism, digital well-being, urban accessibility, or environmental emergencies. Findings and insights from these experiences confirm the workshop's effectiveness as an engaging and playful educational tool for teaching digital literacy through technology-driven topics and civic engagement.

Authors: Tommaso Zambon, Chiara Ceccarini, Catia Prandi | **Journal Name:** CoDesign - International Journal of CoCreation in Design and the Arts | **Publisher:** Taylor & Francis

[2024] [**GameOn! Residency: Promoting Peace, Inclusivity, and Sustainability Through SeriousGames**](#)

Reference: Zambon, Tommaso, et al. "GameOn! Residency: Promoting Peace, Inclusivity, and Sustainability Through Serious Games." Proceedings of the 2024 International Conference on Information Technology for Social Good. 2024.

The paper presents GameOn!, a serious game co-designed during a specialized workshop called residency, a format aimed at empowering interdisciplinary thinking, collaboration and knowledge exchange, through the use of the Minecraft Education Edition (MEE). Emphasizing themes of peace, inclusivity, and sustainability, participants engaged in collaborative, bottom-up design to create innovative educational content resulting in a MEE world with three distinct educational pathways.

Grounded in the principles of serious games, GameOn! integrates educational content into interactive gameplay, promoting - among others - active citizenship initiatives. This study underscores the adaptability and significance of the GameOn! residency format in nurturing creativity and collaboration in serious game development, offering a promising framework for future educational projects. Despite this, challenges remain, such as managing the diverse expertise of participants and balancing the overall goals with each participant's agency.

[2023] [**Culturally-Informed Co-design of Interactive Digital Tools with Citizen Science Communities**](#)

Reference: Zambon, T., & Prandi, C. (2023, September). Culturally-Informed Co-design of Interactive Digital Tools with Citizen Science Communities. In Proceedings of the 2023 ACM Conference on Information Technology for Social Good (pp. 517-520).

The purpose of this research concerns the integration between Human-Computer Interaction (HCI) and interactive digital tools to increase users' awareness about sustainability in the context of Citizen Science communities. In particular, this research project aims to design and develop meaningful and effective interactive data storytelling and interactive digital narratives based on HCI methodologies for Citizen Science. Specifically, we will investigate how cultural elements can be implemented in the design process to improve significance and sense of ownership of technological tools for scientific communication. Such tools can be critical for scientific communication in the context of the local communities of citizen scientists, as the knowledge that they produce tend to remain in the niche of their group. Interactive digital tools can convey simple, yet meaningful narrations to the public and enhance both awareness and decision-making processes about sustainability.

[2023]

SDGs Like You Have Never Seen Before!: Co-designing Data Visualization Tools with and for University Students

Reference: Ceccarini, Chiara, et al. "SDGs Like You Have Never Seen Before!: Co-designing Data Visualization Tools with and for University Students." Proceedings of the 2023 ACM Conference on Information Technology for Social Good. 2023.

Sustainability is currently a hot topic also inside universities. Every year, several universities publish an open report based on their efforts to achieve the 17 Sustainable Development Goals (SDGs). However, the university community is often unaware of these reports and does not know how an individual can contribute to sustainability inside and outside the university premises. To partly tackle that, we exploited a three-step process composed of interviews, data analysis, and co-design to understand which data are relevant in this context and what elements an interactive data visualization system should have to raise awareness of the actions performed by the university, and of what can be done by the university community to improve the overall sustainability of the campuses. In this paper, we present our experience in co-designing solutions with students of the University of Bologna. We finally extract some guidelines that can be exploited in a similar context to make university sustainability reporting an action toward a more sustainable future.

[2023] **Becoming a Speleologist: Design Implications for Coordination in Wild Outdoor Environments**

Reference: Mencarini, Eleonora, and Tommaso Zambon. "Becoming a Speleologist: Design Implications for Coordination in Wild Outdoor Environments." Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems. 2023.

Learning outdoor sports entails acquiring physical skills, managing gear, and coordinating with others. We investigated how speleologists are trained to explore underground caves. We interviewed 15 instructors and 10 trainees to understand the main problems that may occur during training cave trips. Our findings show that stressful situations are linked to beginners' difficulties applying new gestures and procedures - on which their progression and safety depend - and coordinating with others when they are out of sight. It emerged that group awareness and communication are pivotal for their tranquility. Yet, the underground environment makes communicating very hard. This study led to the elaboration of design implications for technology supporting awareness, communication, and coordination in speleology training, which draw from and enrich previous literature on coordination in the wild, as it may happen while performing outdoor sports or during search-and-rescue operations.

[2023] **Exploiting co-design, game thinking and citizen science in a workshop-like experience for stimulating reflections with teens**

Reference: Ceccarini, C., Zambon, T., & Prandi, C. (2023). Exploiting co-design, game thinking and citizen science in a workshop-like experience for stimulating reflections with teens.

Teenagers are constantly overwhelmed with information and activities, both considering school activities and their free time. How can we actively engage them in educational experiences to stimulate discussions and reflections about social issues? To answer this question, we conceived a workshop-like experience where we put into practice three well known methods and concepts, such as co-design, citizen science, and game thinking. The final output of the activity is a low-fidelity prototype of a mobile application, co-designed by a group of students. By taking advantage of open-ended making to engage participants in the ideation of a gamified/game-based citizen science application, we stimulated discussions and reflections about serious topics, such as sustainability and digital wellbeing. The pictorial described the workshop-like experience and the low-fidelity prototypes, engaging 45 students.

URBAN GAMERS LAB: Techniques and Tools to Develop Transversal Competences and Life Skills in Educational Context Using Technologies

Reference: Benvenuti, Martina, et al. "URBAN GAMERS LAB: Techniques and Tools to Develop Transversal Competences and Life Skills in Educational Context Using Technologies." ANNUAL REVIEW OF CYBERTHERAPY AND TELEMEDICINE 2023 (2023): 89. Objectives. The URBAN GAMERS LAB project involves a multidisciplinary team (architects, engineers, and psychologists) to propose the activation of knowledge dissemination and digital transition of the younger generations in Emilia Romagna region, in Italy. Method and Study Phases. The project started in January 2022 and ends in January 2023. About 300 high school and university students, 50 teachers and municipal employees participated in the project. The study took place in three main phases: 1) from May to June the students attended lessons and workshops on how to use games in order to learn and develop skills such as problem solving, creativity, collaboration and negotiation using educational robots (Ozobot) and technologies (VR); 2) from September to November, students held lessons and workshops on gamification (how to build a video game) and functional use of technologies (eg online reputation), while municipal employees attended training courses on how to use gamification in order to develop skills useful for their duties; 3) monitoring and impact assessment phase: two questionnaires were administered to all those who participated in the project, one at the end of the first part of the June activities and one at the end of the November activities in order to verify the acquisition skills and project progress. Lastly, a final event was organized with the return of the results to all the project participants. Results and Conclusion. Results show an acquisition of problemsolving, negotiation and transversal competences in all participants with a high liking of the activities they had carried out during the planning phase.

[2023] **A close look at citizen science through the HCI lens: a systematic literature review**

Reference: Zambon, Tommaso, Chiara Bassetti, and Catia Prandi. "A close look at citizen science through the HCI lens: a systematic literature review." IFIP Conference on Human-Computer Interaction. Springer, Cham, 2023.

In this paper, we present a systematic literature review of Citizen Science (CS) research projects with a focus on Human-Computer Interaction (HCI) and on the modalities in which CS is employed in this field. The query was conducted in March 2022 and provided us with 929 items, of which 646 were research articles. Through the usage of the PRISMA flow diagram, we included 27 papers in our survey. We aim to depict the state of the art regarding CS projects that are directly supported and explicitly defined by the HCI community. We compared the studies on variables like the field of interest and the impact area. We present the mutual interests of CS and HCI, the tools, and the methods that are employed to address these projects. Eventually, we conclude by pointing out some reflections on the value that can sprout from properly employed CS in HCI research.

PHD EXCHANGE PERIOD

[09/2023 - 03/2024]

Aalborg University in Copenhagen - OBAMA NEXT project

During my Ph.D I was hosted at Aalborg University in Copenhagen where I had the opportunity to collaborate in a multidisciplinary environment with experts from different fields at the faculty of techno-anthropology. During this period I worked on the OBAMA NEXT project, which focused on Citizen Science in marine environment. My expertise found employment for counseling activities with experts from other scientific fields in adjusting their objectives and methods to better align with the modalities and scopes of Citizen Science projects and communities.

Moreover, I produced a detailed dataset and report of the current Citizen Science studies working on marine projects.

Autorizzo il trattamento dei dati personali presenti nel CV ai sensi del D. Lgs. 2018/101 e del GDPR (Regolamento UE 2016/679).

Cesena, 15/01/2025



Tommaso Zambon