

PERSONAL INFORMATION

Marta Mondellini



Psychologist

WORK EXPERIENCE

November 2017 to present

Research Fellow

Italian National Research Council (CNR) - Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing (STIIMA), formerly CNR-ITIA.

Main research interests: User Experience and User-Centered Design; eXtended reality for health, motor and cognitive rehabilitation

Business or sector Research.

January 2017 – March 2017

Intern

Neosperience s.p.a. Via Gozzi 1, Milano

Social Media management, production of content, internet data analysis

Business or sector Digital technology

March 2016 – December 2016

Researcher Trainee

Italian National Research Council (CNR) – Institute of Industrial Technologies and Automation (ITIA)

Enterprise Engineering and Virtual Applications Group (EVA).

innovation, design and advanced interaction for assisted living environments (AAL); application of User-Centered Design techniques

Business or sector Research.

March 2014 – April 2015

Trainee psychologist

GVMAS - Volunteer Group for HIV-positive Minors and Adults , via Monviso 28, Milano (MI)

psychological assistance in a clinical setting for HIV-positive patients and their families

Business or sector Psychology

EDUCATION AND TRAINING

November 2022 to present

PhD in Psychology

Università Cattolica del Sacro Cuore – Milano

▪ *PhD Thesis:* Virtual reality-based interventions to support patient motivation in rehabilitation.

April 2019 – November 2020

Master In Psychology, Psychopathology And Perinatal Psychiatry

Spazio IRIS – Istituto di Ricerca e Intervento per la Salute - Milano

September 2015 – December 2016

Specialization course in Human-Machine Interaction

National Research Council of Italy

July 2015

Qualification to practice as a psychologist

Università degli Studi Milano Bicocca

September 2011 – March 2014

Master's Degree - Clinical, Developmental Psychology and Neuropsychology

Università degli Studi Milano Bicocca

▪ Grade: 110/110

September 2006 – March 2011

Bachelor's Degree in Psychological Sciences and Techniques

Università degli Studi di Milano Bicocca

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s) ▪ English: Level B2

Job-related skills

- Human-Centered Design
- Knowledge of systems for movement analysis (VICON Motion Capture).
- Data analysis

Computer skills

- Microsoft Office tools and Windows Operating System,
- SPSS, Mplus

OTHER ASSIGNMENTS

Teaching assignments

- RehabTech Master. Politecnico di Milano (LC); lesson on VR technologies for rehabilitation in elderly patients. 04/2023
- ITS course (Industria 4.0-Tecnico Superiore per Smart City & Clean Energy Management), CNR, Milan (MI). 2020.

PUBLICATIONS

- Scopus Author ID: 57194022581
- ORCID 0000-0002-9578-4586

Journal

- Mondellini, M., Prajod, P., Nicora, M. L., Chiappini, M., Micheletti, E., Storm, F. A., ... & Malosio, M. Behavioral Patterns in Robotic Collaborative Assembly: Comparing Neurotypical and Autism Spectrum Disorder Participants. *Frontiers in Psychology*, 14, 1245857.
- Rutkowski, S., Colombo, V., Mondellini, M., Sacco, M., Bogacz, K., Rutkowska, A., ... & Casaburi, R. (2023). Virtual Reality Rehabilitation for Improving Exercise Performance and Mental Well-being in Post-Acute Sequelae of COVID-19 Patients.
- Mondellini, M., Pirovano, I., Colombo, V., Arlati, S., Sacco, M., Rizzo, G., & Mastropietro, A. (2023). A Multimodal Approach Exploiting EEG to Investigate the Effects of VR Environment on Mental Workload. *International Journal of Human-Computer Interaction*, 1-13.
- Aruanno, B., Carruba, M., Mondellini, M., Paz, J., Ferrise, F., Karaki, J., & Covarrubias, M. (2024). Enhancing Inclusive Education for Young Students with Special Needs through Mixed Reality: Exploring the Potential of CNC Milling Machine Application. *COMPUTER-AIDED DESIGN AND APPLICATIONS*, 21(3), 522-535.
- Mahroo, A., Greci, L., Mondellini, M., & Sacco, M. (2023). Assessment of a mixed reality smart home controller: HoloHome pilot study on healthy adults. *Virtual Reality*, 27(3), 2673-2690.
- Colombo, V., Mondellini, M., Fumagalli, A., Aliverti, A., & Sacco, M. (2023). A virtual reality-

based endurance training program for COPD patients: acceptability and user experience. *Disability and Rehabilitation: Assistive Technology*, 1-10.

- Mondellini, M., Arlati, S., Mottura, S., Colombo, V., Biffi, E., Davalli, A., & Sacco, M. (2023). A Usability Study of an Application to Configure Virtual Reality Training Environments for Wheelchair Users. *Computer-Aided Design and Applications*, 20, 134-144.
- Mondellini, M., Arlati, S., Gapeyeva, H., Lees, K., Märitz, I., Pizzagalli, S. L., ... & Teder-Braschinsky, A. (2022). User Experience during an Immersive Virtual Reality-Based Cognitive Task: A Comparison between Estonian and Italian Older Adults with MCI. *Sensors*, 22(21), 8249.
- Urgo, M., Terkaj, W., Mondellini, M., & Colombo, G. (2022). Design of serious games in engineering education: An application to the configuration and analysis of manufacturing systems. *CIRP Journal of Manufacturing Science and Technology*, 36, 172-184.
- Nossa, R., Porro, M., Picciolini, O., Malosio, M., Pittaccio, S., Valoriani, M., ... & Biffi, E. (2021). What children with neuromotor disabilities need to play with technological games. *Applied Sciences*, 11(21), 9886.
- Mondellini, M., Mottura, S., Guida, M., & Antonietti, A. (2021). Influences of a virtual reality experience on dissociation, mindfulness, and self-efficacy. *Cyberpsychology, Behavior, and Social Networking*, 24(11), 767-771.
- Arlati, S., Di Santo, S. G., Franchini, F., Mondellini, M., Filiputti, B., Luchi, M., ... & Greci, L. (2021). Acceptance and usability of immersive virtual reality in older adults with objective and subjective cognitive decline. *Journal of Alzheimer's Disease*, 80(3), 1025-1038.
- Lorusso, Maria, et al. "Giok the Alien: An AR-Based Integrated System for the Empowerment of Problem-Solving, Pragmatic, and Social Skills in Pre-School Children." *Sensors* 18.7 (2018): 2368.
- Pedroli, Elisa, et al. "Characteristics, Usability, and Users Experience of a System Combining Cognitive and Physical Therapy in a Virtual Environment: Positive Bike." *Sensors* 18.7 (2018): 2343.
- Lorusso, Maria Luisa, et al. "Giok: an alien stimulates pragmatic and social skills in pre-school children." *Proceedings of the 4th Workshop on ICTs for Improving Patients Rehabilitation Research Techniques*. ACM, 2016.

Book Chapter

- Mondellini, M., Colombo, V., Arlati, S., Lawson, G., & Cobb, S. (2022). Human Factors and Ergonomics. *Roadmapping Extended Reality: Fundamentals and Applications*, 229-256.

Conference papers

- Colombo, V., Mondellini, M., Fumagalli, A., & Sacco, M. (2023, September). Digital Applications in Pulmonary Rehabilitation: Preliminary Evaluation of a Hybrid Program for the Continuity of Care. In *Working Conference on Virtual Enterprises* (pp. 497-509). Cham: Springer Nature Switzerland.
- Mondellini, M., Rutkowski, S., & Colombo, V. (2023, September). Cycling in Immersive VR: Motivation and Affects in Post-COVID Patients. In *International Conference on Extended Reality* (pp. 353-366). Cham: Springer Nature Switzerland.
- Arlati, S., Mondellini, M., Guanziroli, E., Rossini, M., Martinelli, I., & Molteni, F. (2023, September). Virtual Reality-Based Rehabilitation for Patients with Stroke: Preliminary Results on User Experience. In *International Conference on Extended Reality* (pp. 441-453). Cham: Springer Nature Switzerland.
- Mondellini, M., Colombo, V., Mauri, M., Tizzoni, F., Tarabelloni, A., Nobile, M., ... & Sacco, M. (2023, August). Evaluating the Usability of a Serious Game for Nutritional Education with Children with ADHD. In *2023 IEEE 11th International Conference on Serious Games and Applications for Health (SeGAH)* (pp. 1-6). IEEE.
- Tauro, G., Redaelli, D. F., Dao, L. A., Mastropietro, A., Mondellini, M., Storm, F., ... & Sacco, M. (2022, July). Design of a Car Simulator to Assess Driving Capabilities in People with Disability.

In Computers Helping People with Special Needs: 18th International Conference, ICCHP-AAATE 2022, Lecco, Italy, July 11–15, 2022, Proceedings, Part II (pp. 477-483). Cham: Springer International Publishing.

- Colombo, V., Bocca, G., Mondellini, M., Sacco, M., & Aliverti, A. (2022, June). Evaluating the effects of Virtual Reality on perceived effort during cycling: preliminary results on healthy young adults. In 2022 IEEE International Symposium on Medical Measurements and Applications (MeMeA) (pp. 1-6). IEEE.
- Colombo, V., Mondellini, M., Tauro, G., Palumbo, G., Rossini, M., Biffi, E., ... & Arlati, S. (2022, August). Rehabilitation of Post-COVID Patients: A Virtual Reality Home-Based Intervention Including Cardio-Respiratory Fitness Training. In Extended Reality: First International Conference, XR Salento 2022, Lecce, Italy, July 6–8, 2022, Proceedings, Part I (pp. 3-17). Cham: Springer International Publishing.
- Colombo, V., Mondellini, M., Gandolfo, A., Fumagalli, A., & Sacco, M. (2020). A mobile diary app to support rehabilitation at home for elderly with COPD: a preliminary feasibility study. In Computers Helping People with Special Needs: 17th International Conference, ICCHP 2020, Lecco, Italy, September 9–11, 2020, Proceedings, Part II 17 (pp. 224-232). Springer International Publishing.
- Mondellini, M., Sacco, M., & Greci, L. (2020). Virtual fitness trail: a complete program for elderlies to perform physical activity at home. In Augmented Reality, Virtual Reality, and Computer Graphics: 7th International Conference, AVR 2020, Lecce, Italy, September 7–10, 2020, Proceedings, Part I 7 (pp. 168-176). Springer International Publishing.
- Spoladore, D., Mondellini, M., Sacco, M., & Trombetta, A. (2020, July). An ontology-based framework for a Less Invasive Domestic Management System (LIDoMS). In 2020 16th International Conference on Intelligent Environments (IE) (pp. 29-35). IEEE.
- Colombo, Vera, et al. Usability and Acceptability of a Virtual Reality-Based System for Endurance Training in Elderly with Chronic Respiratory Diseases. In: International Conference on Virtual Reality and Augmented Reality. Springer, Cham, 2019. p. 87-96.
- Marta Mondellini, Simone Pizzagalli, Luca Greci, Marco Sacco (2019). Assessment of an Immersive Virtual Supermarket to Train Post-Stroke Patients: a Pilot Study on Healthy People in Salento AVR 2019, Santa Maria al Bagno - Lecce (Italy), 24/06/2019, 27/06/2019
- Mondellini, Marta, et al. "Sense of Presence and Cybersickness While Cycling in Virtual Environments: Their Contribution to Subjective Experience." International Conference on Augmented Reality, Virtual Reality and Computer Graphics. Springer, Cham, 2018.
- Mondellini, Marta, et al. "Assessment of the usability of an immersive virtual supermarket for the cognitive rehabilitation of elderly patients: A pilot study on young adults." 2018 IEEE 6th International Conference on Serious Games and Applications for Health (SeGAH). IEEE, 2018.
- Arlati, Sara, et al. "A Virtual Reality-Based Physical and Cognitive Training System Aimed at Preventing Symptoms of Dementia." International Conference on Wireless Mobile Communication and Healthcare. Springer, Cham, 2017.