POLITECNICO DI MILANO

PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 38th cycle

PNRR_352 Research Field: IMAGINING MEANINGFUL FUTURES IN THE METAVERSE ERA THROUGH DESIGN THINKING

Monthly net income of PhDscholarship (max 36 months)
€ 1450.0
In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity	
Motivation and objectives of the research in this field	Dramatic transitions that are characterizing these years are questioning the inner nature of how we see problems, what is critical, what makes sense. Grand challenges we are facing such as sustainability, inclusivity, etc. are profoundly systemic because they involve several stakeholders and aim at enabling/stimulating appropriate users' behaviours. Scholars and practitioners acknowledge the central role of design as a driver of innovation and change. In a way, the importance of design as a source of value creation had been scrutinized for decades. What has driven the steep growth of attention to design in the latest years in the business community is a change of perspective: design is not only an aesthetic driver of innovation but as a whole innovation management practice, a new set of processes, mindsets, capabilities, and organizational settings. The emergence of new paradigms such as human-centered design, participatory design and especially design thinking, have marked the transforming role of design in the field of innovation studies. Design Thinking is accepted as a formal method for creative problem solving, with the intent to face wicked or ill-defined problems and to foster innovation. The interest on the problem was recently renewed in the innovation community in order to investigate the way innovation problems are framed/reframed. Studies tackling the front-end of innovation have mainly focused on the generation of solutions or their evaluation, thus overlooking how the

	problem is framed, and not only the way they are solved. Despite problem framing is recognized to be fundamental in fostering innovation, studies tackling the front-end of innovation have mainly focused on the generation of solutions or their evaluation, thus overlooking how the problem is framed., and not only the way they are solved. Internet is in the midst of transitioning from Web2.0 to Web3.0. With technology evolving, Web3.0 aims to go beyond simply connecting people. The Metaverse is seen as an early framework for this "new internet". The Metaverse is a seamless convergence of our physical and digital lives, creating a unified, virtual community where we can work, play, relax, transact and socialize. It is still early in its evolution, and there is no singular, all-encompassing definition to which people can turn. In other words the opportunities enabled by the metaverse, its role and potential are still undefined and vague. For these reasons new approaches that rely on the capability to make sense of a design problem among multiple stakeholders are needed.
Methods and techniques that will be developed and used to carry out the research	The research project will be developed in A2A relying on three main research methodologies: - Case Study Research, aimed at investigating the effectiveness of Design Thinking practices in imagining meaningful futures; - Ethnographic Research, aimed at observing the impact of Design Thinking practices when applied to imagne meaningful futures in the metaverse era; - Action Research, aimed at experimenting the contribution of Design Thinking practices in imagining meaningful futures in the metaverse era. The research will deliver: - Meaningful futures in the metaverse era; - Practices and Methodologies aimed at designing meaningful futures in the metaverse era.
Educational objectives	Industrial PhD candidate will develop competences and attitudes aimed at applying Design Thinking practices in dealing with wicked and complex problems: - Interpret complex and ill-defined problems;

	- Discover and interpret users' needs; - Adopt a human-centered approach in framing the address problems; - Imagine and craft meaningful futures.
Job opportunities	The opportunities opened by this research project are broad and crossing diverse sectors: - Design Manager in Design-intensive Companies - Product Manager and Business Developer in Design-intensive Companies - Innovation Manager in companies where digital and sustainability are key
Composition of the research group	2 Full Professors 1 Associated Professors 3 Assistant Professors 5 PhD Students
Name of the research directors	Claudio Dell'Era, Stefano Magistretti

Contacts
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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	725.0 €
By number of months	6

National Operational Program for Research and Innovation	
Company where the candidate will attend the stage (name and brief description)	A2A
By number of months at the company	6
Institution or company where the candidate will spend the period abroad (name and brief description)	The PhD student will spend a period of at least 6 months abroad to interact with researchers and participate in joint activities potentially foreseen in the project, according to specific needs. Indeed, the project is highly interdisciplinary, and this favors the collaboration with foreign research centers where the candidate can acquire in-depth knowledge on the theme.
By number of months abroad	6

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Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
Funding for educational activities: 4.900,00 Euros for three years. *Teaching assistantship: There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.* *Desk availability: shared use Computer availability: individual use*