



PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 39th cycle

THEMATIC Research Field: THE ROLE OF ARTIFICIAL INTELLIGENCE IN FRAMING INNOVATION AND TRANSFORMATION CHALLENGES

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| 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 | |
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| Motivation and objectives of the research in this field | <p>The identification or even the creation of opportunities in innovation and organizational transformation projects is significantly enhanced by the ability to frame and reframe the addressed challenge. In a world where ideas and solutions are abundant, framing the challenge in an original way is fundamental. Innovation and transformation challenges are often characterized by the lack of a clear path to a solution because they do not specify the problem solving goals, information, assumptions, or boundaries; they are ambiguous and include conflicting assumptions and information that may lead to different solutions.</p> <p>Artificial Intelligence (AI) has the potential to radically change the way we can read, interpret and consequently frame several phenomena; AI is typically defined as the ability of a machine to perform cognitive functions similar to human minds, such as perceiving, reasoning, learning, interacting with the environment. AI is significantly impacting and empowering the way individuals, teams and organizations perform tasks and practices aimed at innovating solutions as well as transforming organizations. The recent boom of AI tools such as ChatGPT, Dall-E, Midjourney has demonstrated the revolution we are going to face in approaching, performing and managing innovation and organizational transformation tasks. While the potential of AI has been already investigated in relation to standardized and processual tasks, its role and its capability to collaborate with humans in empowering</p> |



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| | <p>innovation and organizational transformation tasks require further research.</p> <p>The research is funded by the "HumanTech - Humans and Technology" project. The HumanTech project has been selected and funded by the Ministry of University and Research (MUR) for the period 2023-2027 within "Dipartimenti di Eccellenza" (Law 232/2016), the ministerial initiative aimed at rewarding the departments that stand out for the quality of their research and at financing specific development projects.</p> |
| <p>Methods and techniques that will be developed and used to carry out the research</p> | <p>The research methodologies adopted in the research project will benefit from the interplay between management and design approaches: while the research methodologies such as Case Study Research, Survey Research and Field Research will enable a systematic investigation of the opportunities and challenges provided by Artificial Intelligence in framing innovation and transformation challenges, other research methodologies such as Applied Ethnography, Co-Design Workshop and Experiments will allow to deeply investigate the interaction between AI-based tools and humans. The research project is coherent with the Human Tech one in investigating the complex relationship between people and artificial intelligence and more specifically in exploring the collaborative modalities that can be practiced in valuing human attitudes and potential.</p> <p>The Laboratory of Behavioural Research in Immersive Environment can provide appropriate empirical settings where to carry out experimental research.</p> |
| <p>Educational objectives</p> | <p>The main educational objectives of the research project are the following:</p> <ul style="list-style-type: none"> - Developing a set of capabilities that enable to envision innovations and transformations that are more meaningful to people; - Developing a set of capabilities that enable to fully exploit the opportunities provided by AI in managing |



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| | <p>innovation and transformation projects;</p> <ul style="list-style-type: none"> - Developing research skills in the domain of innovation management and organizational transformation. As a result, the PhD candidate will be equipped to contribute in framing ambiguous and ill-defined challenges that frequently connote innovation and organizational projects; - Developing research methodology skills in the area of empirical qualitative methods, behavioral research and data analytics. By acquiring these skills, the PhD candidate will be able to conduct rigorous and insightful studies that can inform innovation and organizational transformation processes. |
| Job opportunities | <p>The opportunities for a PhD graduate in this research area are:</p> <ul style="list-style-type: none"> •Researchers/lecturers at higher education institutions; •Innovation Manager in Strategic Consultancy Companies; •Innovation Manager in Creative-intensive Companies; •Product, Business Developer and Brand Manager. |
| Composition of the research group | <p>2 Full Professors 1 Associated Professors 3 Assistant Professors 5 PhD Students</p> |
| Name of the research directors | Emilio Bellini, Tommaso Buganza, Claudio Dell'Era |

| Contacts | |
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| Emilio Bellini (emilio.bellini@polimi.it); Tommaso Buganza (tommaso.buganza@polimi.it); Claudio Dell'Era (claudio.dellera@polimi.it) | |

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

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



Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

The PhD candidate will have access to a working space at the Department of Management, Economics and Industrial Engineering and will attend all the educational activities and the PhD Courses offered by the PhD Program in Management Engineering. Opportunities to become teaching assistant and to be trained within the Teaching Development Program of the Department and Polimi are also available. Finally, all the relevant research data, software and infrastructure will be available.