Supervisor Expression of Interest
MSCA - Marie Sklodowska Curie Action - (PF) Postdoctoral Fellowship 2024

Supervisor name: Deborah Agostino

Email address: deborah.agostino@polimi.it
Link "Pagina docente": **https://www.som.polimi.it/professor/deborah-agostino/**
Department Name: Department of Management, Economics and Industrial Engineering

Research topic:
 ☐ MSCA-PF Research Area Panels: CHE_Chemistry
 ☐ ECO_Economic Sciences
 ☐ ENG_Information Science and Engineering
 ☐ ENV_Environmental and Geosciences
 ☐ LIF_Life Sciences
 ☐ MAT_Mathematics
 ☐ PHY_Physics
 ☐ **SOC_Social Sciences and Humanities**

Brief description of the Department and Research Group (including URL if applicable):

The Department of Management, Economics, and Industrial Engineering (DIG) of Politecnico di Milano was established in 1990. Its mission is to contribute to the common good and individual well-being through a critical understanding of the opportunities and challenges posed by technology to business and society. The Department pursues its mission with an international reach by creating and sharing knowledge through high-quality education, the quest for scientific excellence, and active community engagement.

We aim at:

- Educating responsible individuals who will shape the future of relevant corporations and institutions to serve society.
- Promoting original, rigorous, and relevant research at the intersection of engineering, management, and economics, focusing on a deep understanding of technology and its ecosystem.
- Contributing to a sustainable and inclusive society by inspiring virtuous business practices and transformational policy measures

With approximately 160 professors, DIG is one of the largest departments of Politecnico di Milano. More information can be found at: https://www.som.polimi.it/en/

DIG 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. In particular, the objective of HumanTech is to redefine the relationship between technology and human beings to enable a sustainable digital transition of industrial systems. The project aims to propose new models and processes for the development and adoption of technologies, capable of accelerating the transition towards sustainable, inclusive industrial systems that make individual and collective well-being a priority.

TITLE of the project: *Artificial intelligence for inclusive and sustainable public services*

Brief project description:

Artificial intelligence (AI thereafter) is increasingly adopted for public service delivery. Individuals are constantly using AI driven technology to search, access, exploit and then assess public services. Public sector institutions are also striving to explore AI solutions to improve service design, delivery and assessment. AI has thus the potential to re-shape the whole process of service design, delivery and the ways in which public value is generated, finally contributing to the development of a more inclusive and sustainable society.

This creates new opportunities as well as threats. On the one hand, AI can empower individuals and communities, and increase the opportunities for more personalized and demand-driven public services. AI can also facilitate the delivery of dematerialized public services. Both these dynamics of empowering individuals and dematerialization of service can contribute to the inclusion of citizens in more democratic processes as well as contribute to the development of more sustainable communities.

At the same time, AI can also reproduce existing forms of discrimination, jeopardizing the fairness of processes; and their inscrutability and opacity can reduce citizens' trust on and legitimacy of democratic institutions. All in all, AI can contribute to re-shape the design, delivery and assessment of public services, and how citizens perceive public service performance, in terms of quality, efficiency, effectiveness, equity, accountability and transparency.

Given this background, *the objective of the project is to explore the role of AI for the development of inclusive and sustainable public services*. Preferred public services for the analysis are cultural and touristic services, which are significantly leveraging on AI solutions to increase cultural participation and offer new and more personalized services. Possible research questions include the following: how do individuals/citizens perceive the value of AI-driven public services in terms of efficiency, effectiveness, equity, equality? How do public officials manage the process of implementing AI within their institutions? Which are the expected outcomes of AI-driven public services in terms of inclusion and sustainability? Which are the barriers and drivers connected with the adoption of AI systems in public sector organizations? To what extent AI solutions can enhance the measurement of performance of public services and their accountability?

This research project can be exploited with both qualitative and quantitative investigations. On the one hand, qualitative methodologies support the investigation on "how" and "why" public sector organizations and citizens are facing the challenges brought about by AI. On the other hand,

quantitative methodology can exploit AI techniques to better understand the perceptions of individuals and public officials of the benefits, treats and challenged enhanced by AI.