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

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Link “Pagina docente”:

https://www4.ceda.polimi.it/manifesti/manifesti/controller/ricerche/RicercaPerDocentiPublic.do?EVN_PRODOTTI=evento&idugov=210397&polij_device_category=DESKTOP&_pjo=0&_pj1=6ff1a88d05040aa5a673167dc89e12c1

Department Name: Department of Management Engineering (DIG)

Research topic: Science and Technology Studies (STS); Sociology of Technology; Critical Data Studies; Digital Sociology; Fashion Studies

MSCA-PF Research Area Panels:

- ECO_Economic Sciences
- ENG_Information Science and Engineering
- ENV_Environmental and Geosciences
- LIF_Life Sciences
- MAT_Mathematics
- PHY_Physics
- SOC_Social Sciences and Humanities
- CHE_Chemistry

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.



POLITECNICO
MILANO 1863

- 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.

The EFI (Entrepreneurship, Finance and Innovation) research group at the Department of Management, Economics and Industrial Engineering of Politecnico di Milano investigates topics at the intersection of Entrepreneurship, Finance, and Innovation.

<https://www.efi.polimi.it/>

TITLE of the project: Examining the Social Shaping of Scientific Research through Alternative Funding Models and Digital Infrastructures

Brief project description:

Scientific research is one of the critical drivers of economic growth as well as technological development and social wellbeing (Adams 1990; Jaffe 1989; Stephan 1996) in contemporary societies. Both private foundations and the public sector have traditionally played a key role in supporting fundamental and so-called pre-competitive research, which is a deeply uncertain form of research with unclear social or economic implications that can therefore have characteristics of a public good and discourage private sector investments (Arrow 1962; Nelson 1959).

However, there is widespread concern among commentators, scientists, and citizens concerning the ability of traditional scientific institutions to fulfil this mandate (Laudel 2017; Mazzucato 2015; Viner, Powell, and Green 2004; Franzoni and Stephan, 2022). One concern is that funding is predominantly determined on the basis of technical merit and bibliometric indicators, which are not sufficiently aligned with the needs of social groups and societies, thus frequently producing research with limited social impact (Novitzky et al., 2020; Sampat et al., 2013; Yao et al., 2015), and discouraging innovative experimentation and the exploration of original ideas (Azoulay, Graff Zivin, and Manso 2012; Nicholson and Ioannidis 2012; OECD 2018). Another concern is that research priorities tend to reflect the preferences of politically and socially-dominant groups of



POLITECNICO
MILANO 1863

elites in the Global North, therefore frequently neglecting important topics, such as global warming or social inequality, and thus maintaining or even exacerbating disparities among disadvantaged

and marginalized groups (Hoppe et al, 2019; Mancuso et al.,2023). In addition, the institutions and practices of scientific research are undergoing rapid and fundamental changes that can profoundly reshape the production of scientific knowledge, such as the emergence of digital/data infrastructures and platforms that, for better or for worse, shape long-distance collaboration and open research practices, sharing of intermediate data and final outputs, and the publication and dissemination of scientific knowledge (Mirowski, 2011; 2018). What is more, it is hoped that such digital infrastructures and platforms will facilitate the participation and engagement of various publics in the production and funding of science (Barney et al., 2016; Sauermann et al., 2022).

Future research is needed to understand 1) how new and emergent funding schemes as well as digital infrastructures and platforms are shaping the practices of scientific research and the evaluation of research outcomes together with 2) recent calls to focus on social issues and outcomes over technoscientific concerns as well as to foster public participation in the shaping and evaluation of scientific research.

This project aims at developing a broad research agenda at the intersection of economics, management, sociology, and the social studies of science and technology. The outcomes of this project seek to advance debates within science and engineering as well as in the public domain more broadly in addition to informing potential future policy interventions. The research can be conducted using qualitative and quantitative methods as well as mixed methods that combine field research (e.g., case studies, interviews, ethnographic observation, archival research) with statistical data analysis and so on. Candidates from a broad range of academic backgrounds and experiences are therefore encouraged to apply.