Call for a Forum to be published in the Journal of Industrial and Business Economics

Title: Digitalizing industry? Labor, Technology and Work organization

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The digitalization of economy and the rise of Industry 4.0 are gaining increasingly attention in both public debates and academic research. It is widely acknowledged that the technological conditions underlying 4.0 are (i) automation, (ii) digitalization and (iii) interconnection (see Brynjolfsson and McAfee, 2014 and Ford, 2015, among others). These ‘basic technological conditions’ can be embodied in a multiplicity of technological artefacts, such as collaborative robots, big data analytics, internet-of-things, and cloud computing. How much Industry 4.0 constitutes a novel paradigm of production and digital transformation can be assimilated to a “fourth industrial revolution” is still debated. On the one hand, some authors are critical of the “revolutionary” claims of this transition questioning that 4.0 can constitute a potential ‘Fourth Industrial Revolution’ and they point out that this transformation characterized by a blurring of the distinctions between physical, digital and biological spheres is a long term process dating back in the last nineties (Castells, 1996; Soete, 2018). On the other hand, aspects of discontinuities of the current phase of digital transformations mainly relate to the rising of a new business model based on market power concentration. The decreasing marginal costs of production of goods and services and the increasing importance of intangible component of capital (Haskel and Westlake, 2017) facilitate the generation of “rents” and the insurgence of so-called “winner-take-all” dynamics in industrial organizations (Guellac and Paunov, 2017).

Until now, the academic and non-academic debate has mainly focused on the potential employment “displacement” aspects of new technologies featuring the US American public discourse on jobless growth and destruction of jobs including routine tasks susceptible to replacement. The concern on the impact on employment of technologies is not new (Freeman and Soete, 1985) and it comes to the front even in the current debate on the introduction of digital innovation in manufacturing and service industries, while a deep understanding of work organization is lacking and will involve several aspects to deal with.

Furthermore, in recent years different countries have been approving plans of investment in order to spur innovation within emerging sectors and in order to provide support and alternative prospects of development for the potentially most affected sectors. However, their outlines are still blurred and confused, because of the complexity of the process and the simultaneous contribution of several factors. In particular, a deep reasoning on the new technologies and on the role of labour relations and industrial policy is substantially missing. While the attention seems to be focused on the potential and impressive reduction in manufacturing employment due to the increasing automation, an investigation on the current and future change of labor, work organization and institutions involved in this process has not been entirely carried out.

From a firm-level perspective and on the basis of a managerial discourse, firms have the opportunity to become agile and smart, reducing waste, encouraging the formation of collaborative working systems, and optimizing the inter-organizational relations of the so-called ‘industrial ecosystems’. This rhetoric is opposed by a reading that emphasizes the risks that the pervasive digitalization and interconnection of processes entail: strengthening concentration (of decisional power) without centralization (of production) (Harrison, 1994); reaffirming the process of neo-Taylorisation of work through the introduction of micromanagement practices and new forms of

The proposal of a Forum comes from the conferences held in Sapienza University of Rome, Department of Economics, and Sant’Anna School of Advanced Studies, Institute of Economics, providing an eclectic perspective to the topic of Digitalizing production and the development of Industry 4.0 collecting interdisciplinary contributions from sociology to economic history and industrial economics.

The forum will focus on transformations of labor and work organization related to the introduction of digital technologies, as a special case of the coevolution of technical change and organizational transformations (Nelson and Winter, 1982; Osterman, 1994). We aim to contribute to a deeper understanding of transformations undertaken and of ongoing processes of digitalization of production.

All contributions (of approximately 10 pages each) will have to be submitted to the Journal by end March 2019 and will undergo a fast track of blind review in strict interaction with the guest editors (José Molero and Valeria Cirillo) that will enable accepted papers to be ready for DOI assignment by early June. Publication will follow within 2019.

**Deadlines:**
- March 31st: submission to JIBE
- May 15th: end of first round of fast track reviews
- Perspective publication of the Forum as a special section: Issue n.3-2019
References


Cirillo, V., Rinaldini, M., Staccioli, J. And Virgillito, M. E. (2018). Workers’ awareness context in Italian 4.0 factories (No. 2018/13). Laboratory of Economics and Management (LEM), Sant’Anna School of Advanced Studies, Pisa, Italy.


