

# **Diving into the “Digital Age”: a new task-based approach to wage inequality in Italian provinces**

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## **Abstract**

Nowadays we live in a "Digital Age"; if in the past robotics and automation were the bugbears in front of which the fear of losing jobs materialized (in the dystopia where machines will increasingly replace humans), today digital technologies seem to be the main suspect to bring unprecedented changes to our society - the real "disruptive" innovation. For the first time, such a major innovation is not only labor saving but also very complementary, thus polarizing the labor market and increasing inequality among groups of workers. Moreover, this impact is not equally distributed across the territory; on the contrary - like most innovations -, it is more concentrated in urban centers, because of cumulative processes and agglomeration economies effects, also considering the different speed of penetration with which digitalization hits cities and “non-cities”. Hence, space does not simply "host" an unequal distribution of resources but plays an active role in promoting inequalities (cities become a “multiplier” of inequalities).

Within this conceptual framework, this paper pursues a threefold scope: firstly, we reframe the debate on technical change around digitalization rather than robotization, empirically building a new taxonomy of groups of workers divided by the tasks performed (cognitive, manual, routine and non-routine) in Italian NUTS3 regions; secondly, we conceptually define the role of territories in promoting wage inequalities under the pressure of new digital technologies, and we empirically test our expectations; lastly, thanks to the merge of multiple datasets from Inapp (ICP) and Istat (ICT and RFL), we estimate the impact of digital technologies (proxied by cloud computing) on wages distribution across different group of workers among Italian provinces in the 2012-2019 time span.

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