

Editorial

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Special Issue: Digitalisation and the Labor Market

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For almost 200 years, economists have been investigating the concern that technology can steal jobs. Indeed, in the past decades, the pervasive diffusion of new ICT applications has led to a dramatic adjustment of the employment structure in almost all countries. The arrival of the internet, robots, and, more recently, progress in self-driving cars and artificial intelligence may trigger additional risks amongst all employees and not just those at the lower end of the qualification scale. Additionally, the destruction of routine jobs may create demand for new jobs required by the digitalization of organizations and processes. The *Journal of Economics and Statistics (Jahrbücher für Nationalökonomie und Statistik)* has a long lasting tradition in publishing papers on both theoretical and empirical contributions on a bundle of research questions associated with technological progress and labor market effects. This special issue continues this tradition. The contributions approach the topic on different levels of analysis.

The first two papers by Anke Mönning, Tobias Meier and Gerd Zika, and by Antonio G. Gómez-Plana and Maria C. Latorre address the effects of digitalization within macroeconomic models. Mönning et al. explore the impact of digitalization on wage inequality using a macroeconomic model, which accounts for the input-output structure of the economy and feedback loops. Gómez-Plana and Latorre employ two computable general equilibrium models (with full employment and with unemployment), which differentiate between domestically and foreign owned firms. Within this framework, they investigate the effect of Information and Communication Technologies (ICT) investment on employment.

Further authors in this special issue pursue micro-data analyses. The contribution by Elisa Gerten, Michael Beckmann and Lutz Bellmann uses a linked

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employer-employee data set on human resources, corporate culture and management instruments in German establishments to explore the impact of ITC on worker autonomy and monitoring. Markus Janser, Florian Lehmer and Sabrina Genz consider the role of investments in New Digital Technologies on wages using a novel linked employer-employee data set that contains detailed information on firms' technological upgrading between 2011 and 2016. Sabrina Genz, Britta Matthes and Lutz Bellmann report on the research question whether German work councils counter or foster the implementation of digital technologies. Their study is based on data from the IAB Establishment Survey 2016 combined with occupational level data.

Uma Rani, Marianne Furrer and Christina Behrendt investigate the firms' externalization of work into micro task platforms and quality evaluation through a majority voting based algorithm and employees' remuneration according to the number of tasks or pieces completed. Their empirical analysis draws on a recent survey among workers on major crowd work platforms. The paper suggests that ensuring work and income security remains a concern even for workers who have had a relatively long experience on these platforms.

The authors of the papers contribute to the current debate of the impact of digitalization on the labor market on various ways: They consider the development of both wages and employment, the structure of wages, the organization work and the role of works councils. In addition, firm outsourcing strategies and their challenge for social policy are addressed.