PREFACE.
THE NEW CLARITY OR STILL EXPLORING THE LIMITS OF THE GAME?

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Ask any social scientist what will happen in the social domain; the answer will almost always be that it depends. Social scientists point to the influence of many factors and remain, at best, quite humble in their assertions.

It is, therefore, all the more surprising that in the domain of technology and work, the utopian deterministic thinking of Frey & Osborne (2017) (Leonard & Tyers, 2021) has become so prevalent in the last ten years. In fact, this study by Frey & Osborne started as no more than '*spielerei*' (it took another four years for the internal paper to be published in a peer-reviewed journal), but it quickly became a new 'clarity' about the future of work. It is not surprising that sociologists were pretty baffled by this new clarity. Work would disappear, technology would work autonomously, and only those with the skills to be social and creative would have a future. These statements were grist to the mill of employers and policymakers. The employee should not whine so much. The message was to move with the times instead of holding on to 'outdated' certainties.

In September 2021, the H2020 Beyond4.0 consortium organised its Scientific Conference. For the project team, this was a good moment to take the plunge and think about what is really going on in industry and service networks. We asked the research field what kind of work we would see in the future. Fourteen research papers were selected for this book. The authors have tried to see if we are now in an industrial and economic transformation with such clarity about the future as Frey & Osborne predicted. For these social scientists, some healthy doubt about such clarity remains.

The H2020 Beyond4.0 project suggests we need to look beyond the predictions about technology, work, and labour markets. We can do that in two ways: we can look at what is happening in front of the curtain ("what impacts of technology, etc. do we see?"), but it is also wise to look behind the curtain ("how did we come to those utopian predictions?"). The latter action still happens too rarely (see comments by Pfeiffer & Suphan, 2015; Dhondt et al., 2022). The social science field has been quite distracted by the possibilities offered by Frey & Osborne to deploy machine learning in social science research. Indeed, there are some important weaknesses in their reasoning that have not adequately been addressed to date. First of all, it is based on the assumption that managers will look for cheap and simple tasks and replace them with technology. In practice, managers work the other way around: which (relatively) expensive tasks are there, and how can I eliminate them? Secondly, the prediction that mainly social and communicative tasks will be required in the future is not very realistic. Ever since Jean-Jacques Rousseau wrote his *Emile* (1762), thinkers have been searching for the essence of 'man' and 'work'. The reasoning that the

essence of man lies in the social, communicative, and creative is attractive. Still, for quite a lot of work, such tasks are still of limited significance. Mostly, even in the new jobs that are emerging, work requires limited intellectual activity and is quite physically and mentally demanding. A final limitation is a methodological one. The reasoning that it is possible to deduce from the description of present work what will become dominant in the future is by definition unlikely. Tasks of the past do not accurately predict tasks of the future. The description of work with surveys such as PIAAC, BSS, etc. tends to indicate the division of labour used in organisations more than it does the new future work situation (Dhondt et al., 2021).

Frey & Osborne's predictions have let us down for the time being. Not one of their predictions has led to the predicted changes. On the contrary, we see that companies are having a hard time implementing Industrie 4.0 technology. Labour markets show major shortages of staff at all skill levels. Social and communicative skills do not lead to higher wages. These predictions are, therefore, far from reality.

The Beyond4.0 Scientific Conference provided a platform for research groups from across Europe to share their findings on work and the future. As indicated, most of the results look at what is happening in front of the curtain. What can we see in companies and labour markets? The fourteen research papers focus on both I4.0 and developments in the platform economy. The subjects vary from technology (AI), ecosystems, and education to employment relations, skills, and the labour market. The researchers gauge whether we can see a transformation of labour content and labour relations. They hesitate between a hard shock and gradual change. Is there any real change in the behaviour of companies? Several point out that opportunism is still central to managerial behaviour (see the chapter by Jeleva in this book). In fact, the researchers refer to broader and deeper developments in our economy. The progressive flexibilisation of labour relations still negatively affects work content. Some express the hope that there will be a change in work. Perhaps new technology will lead to a more controlled and monitored type of work, but Blauner (1964) already made this prediction in the 1960s. Perhaps hybrid work, as an outcome of the COVID-19 crisis, will lead to new perspectives. Researchers consistently point to the many conditions needed for real change.

The Beyond4.0 Scientific Conference provided the context for an open discussion about people and work. It is a warning that we should not run like lemmings all in the same direction. More nuanced conclusions are needed because policies must take into account many more circumstances than was previously thought. The new clarity does not, therefore, provide clarity. Social scientists are better off with "it depends". It makes sense for today's worker to hold on to his own certainties, especially when the predictions are very uncertain. The engagement of the participants in the Scientific Conference was therefore very welcome and useful. Thanks to Vassil Kirov, Bagryan Malamin, and the Bulgarian Academy of Sciences for publishing the research results.

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