

PREFACE

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Several major transformations have characterized the world of work over the last years. Those transformations follow different patterns in different countries, yet their dynamics are so interrelated that it is often hard, if not impossible, to distinguish the causal relationships among them. Technological advances, globalization, old and new media, demographic changes, new production and new economic systems: these are all key factors acting on the ongoing process of transformation which is impacting both the world of work and society as a whole. In the spirit of Karl Polanyi, the well-known scholar who described the rise of market-based societies, we are led to wonder if we are witnessing a new *Great Transformation of Work*, on such a scale that it might change the very meaning of work in our society, even its anthropological connotations.

The international conference *The Great Transformation of Work*, organized by the Doctoral School in Human Capital Formation and Labour Relations (University of Bergamo) and ADAPT (Association for International and Comparative Studies in the fields of Labour Law and Industrial Relations) that took place in Bergamo on 6-7 November 2015, was aimed to investigate and discuss the different aspects of the transformation of work from a comparative and interdisciplinary perspective. This volume, collecting some of the most valuable papers presented at the conference, provides insights into some of the aspects that we consider to be relevant to an understanding of today's and tomorrow's world of work.

Before describing the contents of this volume, and in order to set the framework of the speakers' analysis, it is important to outline the general characteristics of this great transformation by listing some of its dynamics.

One of the major factors and, *sans doute*, the one that has received the most attention, is technology. Over the last years, there have been many technological advances. The strict relation between work and technology is well established: history shows the importance of technology in the

production system, in the ways of working and, consequently, in the very functioning of the economy, as well as in the composition of the society. Industrialization, assembly lines, or, more recently, the growth of the service sector and the dematerialization of work – to name just a few examples – have their roots, at least partly, in technological advancements. But, how does technology affect today's world of work?

We believe technology is shaping a fourth industrial revolution. The evidence is widespread and varied. Automation and the effect of substitution of human labor by machines are the first aspects that come to mind: these phenomena have been noted and analyzed frequently in the past, but it seems that something has changed in the last few years. Automation is no longer limited to the displacement of routine and repetitive tasks; it is expanding its effects even to non-routine tasks. Scholars are trying to predict what will happen as a result: what will be the impact on trained workers? Moreover, we are currently facing the so-called polarization of work: the erosion of middle wage/middle skilled jobs and the growth of high wage/high skilled jobs and low wage/low skilled jobs. Will there be enough work for the future generations of workers? Will increasing education and training provide job security, or is that a chimerical dream? Will automation eliminate the poles as well as the middle?

In the meantime, technological progress has provided new tools and new devices that impact the traditional ways in which resources, including labor, are allocated. In particular, the rise of the sharing or on-demand economy, presents new challenges to labor regulation. Increasingly, many services are not provided by companies; they are offered and requested on a personal basis thanks to platforms that enable the contact between different users (peers). This phenomenon raises many questions and concerns regarding the traditional understanding and structures of labor regulations, the transformation of the economy and, finally, the characteristics of work and workers in the new society. While on-demand work is still at an early stage, with a small yet fast growing workforce, it is important to study it in connection with other alternative arrangement patterns that have already reshaped the composition of the labor market, impacting on its major institution of the 20th century: the Standard Employment Contract (SEC).

The effects of technology on work do not stop here: they affect many different aspects of performance. Telework is already a common practice, but the traditional space-time coordinates of work performance are now more problematic than ever. Nowadays, so many activities can be performed by a remote location, thanks to information technology,

portable devices and widespread connectivity, that the idea of a fixed workplace has become obsolete in many fields.

Working time is also changing. On the one hand, many companies now let workers set their own schedule, focusing on the results of the performance rather than on their presence at the workplace. On the other hand, the line between working time and free time is becoming blurred because portable devices make the worker continuously available. Yet many of the major regulations about work are based on the notions of a fixed workplace and strictly delineated working time. Thus we must ask, are these regulations still appropriate? For example, consider the regulation of workplace health and safety. Many of the risks arising from new ways of working happen outside of the workplace and outside of the working day, and thus may not be covered by traditional worker compensation legislation. Similarly, maximum hours regulations are difficult to apply to workers who are available 24/7.

Another area to consider is the impact of social media in the workplace and in the world of work in general. Social media can be valuable to help find a job (worker's perspective) or a job candidate (employer's perspective). They are also used during work performance, sometimes as a work tool, sometimes to monitor work output, and other times for non-work-related activities on a leisure break. Social media raises concerns regarding the protection of the worker's privacy and the protection of the employer's reputation and trade secrets. Moreover, social media are also an instrument used by unions to keep in touch with the workers and to strengthen their voice.

At the same time, social media create new job positions (e.g. *social media managers*) and require specific skills from candidates. That is not all. The activities on social media, as well as many other actions workers perform on the internet, can have an economic value of their own. Some of these activities are not considered as work, but they still produce wealth. How do we deal with an economy in which there is a growing dissociation between the ones who produce value and the ones who capitalize on it?

So far, we have only provided some examples of the consequences of technological advances in the world of work. There are many others, such as the consequences of big data and people analytics on work organization and workers' lives, new management systems, reliance on algorithms and so forth.

It is important to link this great variety of technologically-driven phenomena to other trends that are reshaping the world of work. In doing so, we must mention a few other phenomena which are worth analyzing in order to depict the new reality of work.

The transformation of work is characterized by a “new geography of work”. The process of globalization has led to global competition. In many cases, the relocation of production has gone from being a hypothetical threat to being a major factor that has lowered working conditions in many companies operating in the most advanced economies. This dynamic started in the manufacturing industry. The spread of new technologies and the dematerialization of work have led to new opportunities for firms to relocate to areas with low labor standards. Relocated foreign divisions of many companies can now provide entire services on their own, and even single projects can be divided into small and simple tasks, which can be carried out and coordinated through online platforms by workers living anywhere in the world, and then gathered, checked and assembled in order to make the final product.

Although production and jobs tend to be more and more dispersed beyond national borders, we are also witnessing the growth of world cities, those that have the ability to attract innovative companies and provide new jobs thanks to higher standards of education and training of their inhabitants. The growth of world cities leads to a concentration of new opportunities in few regions. At the same time, some cities and regions do not have the infrastructures and the skills needed to capitalize properly on the new economy, and end up experiencing decline. Their inhabitants move away, leaving decay and poverty behind. At the same time, the increasing attractiveness of the innovative cities makes them less affordable for low waged families who lack the means to seize the opportunities provided. The distribution of jobs in the world and in the different nations has major consequences on society as a whole, and it is necessary to devise new policy approaches in order to cope with the challenges raised.

Another major development that requires attention is demography, which impacts several aspects of work and has extensive connections with other dynamics mentioned above. Demographic trends raise many questions, such as: How does the aging of the population affect work? How will the entrance of the millennial generation into the workforce reshape the traditional patterns of work? How will the massive migrations that some countries are experiencing impact on labor markets? What will be the trends and implications of female participation in the labor market? These questions have to be taken into account in order to understand the new reality of work.

A multigenerational, multicultural and generally more diverse workforce creates many new challenges. The attitudes, needs and expectations of the workforce are becoming as heterogeneous as its

composition. That means, for example, that management approaches and employment laws have to be reshaped and made more flexible in order to address many new types of workers and many different situations. For instance, the fact that the population is aging is putting pressure on the welfare state in many places. The aging population may necessitate longer working lives in order to make social welfare systems economically sustainable. Already in many countries, the retirement age has been increased over the last few years.

An aging workforce also has consequences on the productivity of workers, their health conditions and their skills. Because of frequent advances and changes in technologies and organizations, skills quickly become outdated. It is necessary to provide workers with skills that will be relevant for the whole life and, at the same time, to enable them to re-skill to ensure their ability to face the new patterns of work.

An aging workforce will require a new approach to workload and medical leave policy. In particular, we can expect an increasing incidence of chronic diseases and illnesses among this section of the workforce. All these issues raise concerns that have to be addressed through policies to create more sustainable work-life arrangements.

Immigration is also becoming an important issue in labor policy. In order to address the problems of an aging population, immigration could provide a partial antidote. However, immigration is controversial. It poses the danger of displacing existing workers. Moreover, immigrant workers are in a position in which they are exploited by employers, without the ability to claim the protection of traditional employment rights. In many cases, immigration can generate competition for steady and legitimate job positions and trigger a race to the bottom of working conditions. To counter that dynamic, it will be necessary to grant labor rights to immigrants while protecting incumbent workers against job loss and economic ruin.

Female participation in the labor market is increasing but this trend also requires new regulatory approaches. In particular, nations need to consider new approaches to care work, an area that traditionally has been borne by women.

We have limited our discussion to a few of the dynamics of these transformations. We think that it is now important to introduce in our analysis two additional, and fundamental, factors: legislation and industrial relations. Labor regulation and industrial relations are not merely affected by the transformation of work. Lawmakers and unions are also major actors of this change. They have contributed to shaping the current labor market landscape. In many European countries, lawmakers and unions

have conflicted over efforts to loosen traditional labor protections given by labor laws and collective bargaining in the name of making labor markets more flexible and fostering economic growth and innovation in order to create more jobs. These policy approaches are particularly pronounced in countries that have been characterized by a high level of workers' protections and that have experienced heavy effects from the economic crisis, such as Spain, Italy and, more recently, France. But, as the transformation is still undergoing, and because the solutions implemented to date do not seem to have addressed the challenges of the new reality of work or created new forms of social protection, more efforts are still needed.

In this time of fundamental change, the actors that have traditionally been in the best position to cope with rapid changes in work and the labor market – i.e., the unions – are now facing, in many countries, a big crisis. The problems for unions are both problem of representation and of means. Although union membership decline is not new, it is reaching an entirely new level. In part, the problem is that unions have not been able to represent the different, and sometimes conflicting, demands and needs of heterogeneous workforces. In particular, there seems to be a divide between workers employed in traditional jobs, who still enjoy a good level of protection and representativeness, and workers who are employed under alternative arrangement agreements. There is also a problem of union methods. Traditional union tools, such as collective bargaining and strikes, have lost part of their capacity to address the problem of the workforce. For example, when there are subcontractors and dispatched workers, it is often difficult to identify an employer to bargain with. In multinational companies or along supply chains, the employer is located in a different country than the worker. Sometimes it is unclear if a worker is an employee or an independent contractor. We need to consider how to provide employment protection or design labor laws for many new forms of employment.

The landscape we have briefly and partly described so far raises a lot of questions. In order to propose better solutions to cope with the great transformation of work, it is necessary to analyze its ongoing dynamics. Lawmakers, unions, scholars and practitioners are all called to do their part in order to achieve the goals of sustainability and fairness of our economic systems.

The present volume offers some insights and analysis about the great transformation of work. In the following section, we provide information about the structure of the present volume and the contents of the contributions. We hope that the papers will foster the debate on the

transformation of work: its challenges can only be addressed if they are deeply debated and analyzed.

Chapter I - Changing Technology, Geography and Vision: a New World of Work

A number of interrelated phenomena affect the world of work. The first chapter of the present volume deals with some of the dynamics that are reshaping the nature of work, the geography of work, and the way these issues are characterized in the media.

In this section, three contributions focus on the impact of new technologies on workers and labor markets. While technological progress raises concerns about workers' protection, it is also an enabler in modern labor markets. In this section, **Gintarė Tamašauskaitė-Janickė** analyzes the effects of technology at work, taking into account different regulatory instruments at the company, national and international level, and **Sarfraz Ghulam** provides a close examination of the effects of cloud computing on global labor practices and labor market dynamics more generally.

Technology also plays a role in other contexts. For instance, technological progress affects the competing processes of heterogeneity and convergence linked to globalization. **Adele Bianco** explains these processes and their relevance to the vision of employment as a development strategy. Further, technological advances provide useful instruments to understand the dynamics of workplace innovation, whose impact on workers is discussed in the paper by **Dominique Kiekens**.

The changes affecting the world of work can also be analysed from the perspective of the treatment of work and workers in the media. **Christopher R. Martin**'s contribution provides insights into the vision of work, explaining the changes that have occurred in the media's vision of work in the US context.

Chapter II - Demographic Changes: Challenges for the Current and Future World of Work

Current demographic changes – in particular the ageing of the population and the higher rates of chronic diseases among the economically active population – pose many challenges for the world of work. The papers by **Ana Cristina Ribeiro Costa** and **Ugo Orzulike** analyze the role of occupational health and safety (OHS) in the changing world of work. The former contribution argues that OHS has to respond to the specific needs of older workers due to their age and their health status.

The latter argues that chronic diseases are frequently the result of one's working activity, so that it is necessary to devise a strategy at the European level to protect workers from these risks.

This section also includes the paper by **Agne Kalson**, who argues that employment regulation has to respond to the specific needs of older workers and those with chronic diseases in order to allow them to stay active in the labour market even if their working capability is reduced due to a medical condition. To achieve this goal, it is necessary to introduce adaptation measures at work, particularly flexible working time and reasonable working time adjustments.

Chapter III - Industrial Relations Put to the Test of the Great Transformation of Work

Social dialogue and industrial relations are important mechanisms to deal with the challenges affecting labor markets and labor relations. The contributions of this last section examine the ways in which industrial relations theories and practices are changing in order to face the challenges. The contribution by **Ana Teresa Ribeiro** focuses on the recent legal changes introduced in collective bargaining in a number of European countries. **Daiva Petrylaitė** explains the challenges, opportunities, and possible developments of industrial relations systems, with a focus on the prospects of coordination at the European level. Finally, the contribution by **Paolo Tomassetti** analyzes the link between industrial relations and the environment, focusing on trade unions activity, wage and the ecological conversion of workplaces.