

Chapter 3

The Smart Job Factory: Creating Sustainable Jobs by Defining Work Process Roles Based on a Digital Ecosystem Model

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ABSTRACT

The labor market is confronted with social, environmental, and economic developments that affect working conditions and individual labor relations. Lately, the Covid-19 pandemic has demonstrated and reinforced the importance of inclusive growth and sustainable work relationships. In this chapter, the smart job factory, a metamodel that supports the creation of new forms of work by redefining roles in labor, is introduced. The smart job factory is based on social entrepreneurship principles to drive innovative, sustainable, and long-term solutions to social challenges. For practical application, the model can be translated into a software solution that supports employers in the assessment of current working conditions and job roles within their companies and helps to redefine work relationships and to create new jobs. Thus, the smart job factory supports the labor market transition by systematically and proactively shaping new forms of work based on the triple bottom line of sustainable development.

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INTRODUCTION

The massive dislocations and changes in employment in the wake of the Covid-19 pandemic have, in a new dimension, highlighted that the development and well-being of the population as a whole, as well as of individuals, is strongly dependent on purposeful and meaningful activity in social groups. At the same time, the current events have demonstrated a deficit of skilled workers and professionals, for example in the health and logistics sectors and companies with a focus on well-being and services to the public. Unemployment or change of employment, change of work content and processes, modification forms of work and tasks, etc. have a significant adverse impact on the psychosocial work environment, social security, performance, mental health, and well-being of employees (European Commission, 2010; OECD, 2017; Pohlan, 2019). Ultimately, personality development, as well as the social well-being of the population, depends on the design of sustainable work relationships.

Changes in the goals and tasks for employees' work activities triggered by the dynamics of science and technology, globalization, digitalization, and climate change, as well as changes in the external circumstances, are leading to permanent changes in employment relationships (Dolphin, 2015; Leichenko & Silva, 2014). These changes are difficult to manage in a highly complex system of hybrid forms of work, thus causing difficulties for employees to secure a decent job and for employers to find and retain a suitable workforce. This leads to an imbalance in the job market and employee-employer relationships. Consequently, conventional approaches to job design, which solely depend on traditional corporate and social responsibility considerations, have become insufficient for the development of new forms of work. Approaches toward the transition to sustainable work need to be economically, ecologically and socially balanced to systematically and proactively shape new professional activities in new forms of work. A concept that addresses the establishment and transition of businesses towards sustainability, including sustainable forms of work, is Social Entrepreneurship (SE) (Javed, Yasir & Majid, 2019). The balancing of social and economic motives as a guiding principle of social enterprises (Chell, 2007) is a widely discussed concept on which this chapter builds to propose a novel model that supports sustainable business development.

A systematic and proactive design of new occupational activities in new forms of work is required to enable an economically, ecologically and socially sustainable change in the external living conditions of the society as a whole, as well as a balanced development of new forms of work. In this chapter, the Smart Job Factory (SJF) is being introduced, a holistic methodology for the role-based generation of sustainable jobs in the form of a metamodel. The basis for the concept development of the SJF was the role conception in the use case diagrams of the Unified Modelling Language (UML) (see Object Management Group, n.d.). Accordingly, in a use case, an actor creates a system with specific activities that can be connected with other actors. Actors can be real people, computer systems or external events. Thus, they do not represent the physical person or system, but rather the roles of these objects. Transferring this method to the example of labor reorganization by filling tasks, responsibilities and behavioral expectations, the role conception can be completed with an actor that best fits the requirements of the organization. That does not imply that tasks fulfilled by humans are substituted by machines, but that roles are better designed to fit individuals, contributing to their satisfaction in pursuing their work. Hence, the purpose of the SJF is to enable the transition to sustainable new forms of work by evaluating and further developing the sustainability of new forms of work concerning employee wellness and motivation, social impact, and welfare by orienting along the principles of SE. This chapter is aiming to explore the current issues in the sustainability of work relations, identify the potential for the design

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