

# The human role in the age of information

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**Abstract** Age of automation entails freedom from most of the common working roles. Signs are changes in employment, unemployment, professional structures, relevance of services, entertainment industry, working hours, and the nature of social relations. Warnings are suggested against voluntaristic interventions, neglect of social, historical relations. New approaches are required in the fields of lifelong education and in the education of socially disadvantaged people. The changes in evolutionary inherited motivations and life styles are critical challenges to mankind. Open society and lessons of system control are recommended.

**Keywords** Adaptive systems · Automation · Computer-aided work · Feedback control · Social impact of automation

## 1 Introduction

The ancient problem of the human role has been transformed in our age of automation. Historically, this issue was almost exclusively linked to a kind of supremely decided mission, i.e., it was a theological–ethical issue. Indeed, reflections of this perspective can be found in Greek philosophy regarding the essence of being proper, the first question of the catechism, the initiative of

meditation in Buddhism, and many other forms ranging from mythologies to recent ideologies, e.g., national, racial, and communistic-social fantasies.

Yet, our problem is of a radically different nature, even though it still has an ethical aspect with a more matter of fact focus. Our view reflects an up-to-date social–technological situation, and looks for answers within the reality of technology, economics, and psychology. To summarize, in a new world of automation with all kinds of information technology included, we have reached an age in which we are able to set ourselves practically free from most of the common working roles, especially those requiring human physical labor and tedious attention to observe and record regularly occurring phenomena. These tasks that we have now eliminated from our working lives, once constituted the workload of the vast majority of mankind, creating the concept of working as mostly a kind of forceful coercion.

At the moment, the situation is deceptive and does not demand immediate action. Yet, it is technologically present, which is evidenced by several obvious signs. One of them is the changing structure of unemployment in technologically and economically advanced regions. In the flourishing period after WW2, these regions absorbed millions of immigrants employed in low-qualified work, but those low-qualified workers now compose the majority of the hopeless, facing unemployment at the labor market. Moreover, the demand on highly qualified people is increasing (Heath et al. 2008; US Bureau of Labor Statistics 2012a, b; Chiswick and Mincer 2003; Mincer 1957, 1958, 1960a, b, 1991; Reuters Staff 2010).

Due to progress in automated technology, the general figures of unemployment remain high in spite of periods of improvement in the economy. The overall picture is altered by temporal differences in the professional and age distribution,

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