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Automation and Digitalization of Business Processes – Evaluating Benefits and Challenges

Workshop 6: The Use of Social Robots in Key Business Activities

Thursday, February 15, 10.30-12.00, Room II UC, Horsaal C 2

One of the main propositions in literature on AI and (social) robotics is that these technologies will cause a substantial amount of job losses – not only for industry workers but also for knowledge workers and managers. However, job analysis of knowledge workers and managers reveals that these new technologies may not replace humans completely in their jobs but only in certain tasks. Distributing tasks among human and artificial agents requires a close interaction and collaboration. Since process management favors case switching between (human or artificial) agents – as switching carries error potential and causes set-up times or lay times which all negatively influencing performance – effectively integrated socio-technical systems need to be designed which consider whole business processes.

This paper addresses potential benefits and challenges associated with the design of such socio-technical systems. We identify areas where social robots and artificial agents could be beneficial (e.g. where neutrality and objectivity is required as for example conflict mediation, moderation of creative team meetings or difficult group meetings) and address challenges associated with the delegation of tasks to AI and social robotics in these areas. In particular we discuss issues of trust, overconfidence, control and accountability when in delegating tasks to artificial agents and social robots (delegation problem).

Michael Filzmoser, Associate Professor at the Department of Organization and Labor Science, Institute of Management Science, TU Wien, Austria. His research focuses on simulation, negotiation and organization theory, in particular the analysis and design of coordination processes. His recent research and teaching projects address digitalization and automation in administrative, service and management processes.

Sabine Koeszegi, Professor of Labor Science and Organization, Institute of Management Science, TU Wien, Austria. Her research interests are at the intersection of technology, work and organization and cover amongst others topics of conflict resolution, flexible work arrangements, and socio-cultural implications of technologies. She is chairing the Austrian Council for Robotics.

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