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Human Work Interaction Design. Designing Engaging Automation

Barbara Rita Barricelli, Virpi Roto, Torkil Clemmensen, Pedro Campos, Arminda Guerra Lopes, Frederica Gonçalves, José Abdelnour-Nocera

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Barbara Rita Barricelli · Virpi Roto
Torkil Clemmensen · Pedro Campos
Arminda Lopes · Frederica Gonçalves
José Abdelnour-Nocera (Eds.)

Human Work Interaction Design

Designing Engaging Automation

5th IFIP WG 13.6 Working Conference, HWID 2018
Espoo, Finland, August 20–21, 2018
Revised Selected Papers

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Preface

Human Work Interaction Design (HWID) was established in September 2005 as the sixth working group (WG 13.6) of the IFIP Technical Committee 13 on Human-Computer Interaction (HCI). The scope of this group is the analysis and interaction design of a variety of complex work and life contexts found in different business and application domains. For this purpose, it is important to establish relationships between extensive empirical work domain studies and HCI design. WG 13.6 aims to provide the basis for an improved cross-disciplinary cooperation and mutual inspiration among researchers from the many disciplines that by nature are involved in the deep analysis of a work domain. Complexity is hence a key notion in the activities of this working group, but it is not a priori defined or limited to any particular domains. WG 13.6 initiates and fosters new research initiatives and developments, as well as an increased awareness of HWID in the HCI curriculum.

This volume presents chapters extending the papers presented at the 5th HWID working conference that was held at the University of Aalto (Espoo, Finland) during August 20–21, 2018. In continuation of the series of the Human Work Interaction Design working conferences, the fifth edition was aimed at investigating the theme “Designing Engaging Automation.”

Interaction design for work engagement has recently started to gather more attention, especially in designing tools for employees. Work engagement takes usability of interactive systems to the next level by providing employees with pleasurable and meaningful experiences via the tools used at work. The theme of HWID 2018 emphasized the need for providing these experiences also when parts of the work are automated.

Examples of relevant questions we posed during the conference include: Is automation making work less interesting or more engaging? How can we improve work engagement by automation? How can we share work optimally between humans and automation? How can we maintain operator vigilance in highly automated environments? How can we support situation and/or automation awareness? How can we evaluate the impact of automation on work engagement?

The chapters in this book focus on answering these questions to support professionals, academics, national labs, and industry engaged in human work analysis and interaction design for the workplace. The first section of the book collects the chapters

that present cases of HWID in practice, while the second is focused on the chapters that present methodological discussion.

October 2018

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