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IFIP is the global non-profit federation of societies of ICT professionals that aims at achieving a worldwide professional and socially responsible development and application of information and communication technologies.

IFIP is a non-profit-making organization, run almost solely by 2500 volunteers. It operates through a number of technical committees and working groups, which organize events and publications. IFIP's events range from large international open conferences to working conferences and local seminars.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is generally smaller and occasionally by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is also rigorous and papers are subjected to extensive group discussion.

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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

Editors

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University of Milan
Milan, Italy

Virpi Roto
Aalto University
Aalto, Finland

Torkil Clemmensen
Copenhagen Business School
Frederiksberg, Denmark

Pedro Campos
Madeira Interactive Technologies Institute
Funchal, Portugal

Arminda Lopes
Madeira Interactive Technologies Institute
Funchal, Portugal

Frederica Gonçalves
Madeira Interactive Technologies Institute
Funchal, Portugal

José Abdelnour-Nocera
University of West London
London, UK

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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

Barbara Rita Barricelli
Virpi Roto
Torkil Clemmensen
Pedro Campos
Arminda Lopes
Frederica Gonçalves
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