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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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Ulrike Schultze · Margunn Aanestad  
Magnus Mähring · Carsten Østerlund  
Kai Riemer (Eds.)


# Living with Monsters?

Social Implications of Algorithmic  
Phenomena, Hybrid Agency,  
and the Performativity of Technology


IFIP WG 8.2 Working Conference  
on the Interaction of Information Systems  
and the Organization, IS&O 2018  
San Francisco, CA, USA, December 11–12, 2018  
Proceedings


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## Preface

The papers in this volume constitute the proceedings of a working conference organized by the IFIP Working Group 8.2, whose brief is “The Interaction of Information Systems and the Organization.” The conference, entitled “Living with Monsters? Social Implications of Algorithmic Phenomena, Hybrid Agency and the Performativity of Technology,” was held in San Francisco during December 11–12, 2018. An important inspiration for the theme of the conference was the highly successful 2016 Dublin working conference organized by Working Group 8.2; we would like to see the current conference as at least partly a continuation and extension of themes and ideas put forward in Dublin.

The call for papers resulted in a total of 49 submissions. Of these, 11 full papers, four panel papers, and 16 interactive papers were selected for presentation at the working conference. The submissions were selected through a blind review process involving at least two reviewers and the editors. Authors of submissions that were selected for the next round were requested to revise their contributions in accordance with the reviewers’ and the editors’ recommendations. The revised submissions were then reviewed for publication in this volume.

An introductory paper serves as an introduction to the volume, and two short papers, by Lucy Suchman and Paul N. Edwards, reflect the contents of the two keynote addresses given at the conference. Lucy Suchman deals with our ambivalent relationship with technological power and control, concretely in relation to the increasing automation of military systems. Suchman reminds us that we are not absolved from responsibility because the technological systems are beyond our control, and she emphasizes the challenge posed to us by the monster imaginary. Paul N. Edwards takes on algorithms and develops four principles that capture core aspects of their nature; the principle of radical complexity, the principle of opacity, the principle of radical otherness, and finally the difficult-to-name principle of infrastructuration or of Borgian assimilation.

In addition to the keynotes and paper presentation sessions, we organized interactive poster presentations and two panels. The first panel, called “Monstrous Materialities,” brought together papers that investigate various aspects of the surprising and sometimes unintended effects of our actions and interactions with technologies. A second panel was given the title “Studying ‘Sociomateriality’: An Exploration of Constructs in the Making.” The panel was chaired by Wanda Orlikowski and focused on how we work with materiality in our research studies. Going beyond debates about the best approach to examining “sociomateriality,” the panelists (Dubrava Cecez-Kecmanovic, Eric Monteiro, and Susan Scott) offered a constructive exploration of the specific ideas and practices that guide their research studies, sharing the value they obtain from working this way.

During the work in preparing the conference, one of the submitting authors, Natalie Hardwicke of the University of Sydney, tragically and prematurely passed away.

As a tribute to her, and a memento of a promising academic career cut short, we have decided to include her short paper as the final chapter in this volume.

We would like to express our thanks to all the contributors to this volume, as well as the panelists and presenters at the conference. We would also like to express our gratitude for the excellent work of all the members of the Program Committee, as well as additional reviewers, during the review process. Further, we are grateful for the support of the Cox School of Business at Southern Methodist University, the Stockholm School of Economics, the University of Sydney Business School, the iSchool at Syracuse University, and the Department of Informatics at the University of Oslo.

Last but not least, we are most grateful for the professional and efficient support of Erika Siebert-Cole, Niranjana Bhaskaran and their colleagues at Springer in producing these proceedings.

October 2018

Ulrike Schultze  
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