

Beyond Interactions

José Abdelnour Nocera, Antigoni Parmaxi, Marco Winckler, Fernando Loizides, Carmelo Ardito, Ganesh Bhutkar, Peter Dannenmann

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Beyond Interactions

INTERACT 2019 IFIP TC 13 Workshops
Paphos, Cyprus, September 2–6, 2019
Revised Selected Papers

Springer

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Foreword

This volume presents a series of revised papers selected from workshops organized by IFIP TC 13 Working Groups (WGs) during the 17th IFIP TC13 International Conference on Human-Computer Interaction, INTERACT 2019, which was held in September 2019 in Paphos, Cyprus. INTERACT 2019 was hosted by the Cyprus University of Technology (CUT) and Tallinn University. The conference was co-sponsored by the Research Centre on Interactive media, Smart systems and Emerging technologies (RISE) and Springer. It was in cooperation with ACM and ACM SIGCHI.

The contents of this volume vary from descriptions of design products to design solutions with users' needs at heart. For both researchers and designers in the field of human-computer interaction (HCI), the question is to design products and services that would have a direct impact on their users. Thus, in the era of emerging economies, HCI contributions in terms for products and services are timely and necessary. The IFIP TC 13 WGs brings together different facets of HCI with an eye to discuss practices and strategies employed by practitioners and instructional designers as well as their impact on the design of products and services.

This post-proceeding presents the outcome of a thorough and competitive selection process which started with the selection of workshops for INTERACT 2019. The IFIP TC13 WGs were challenged to propose workshops that match the main topics of the INTERACT conference. We were open to welcome workshops in diverse formats, including paper and poster presentations followed by forum discussions with participants. The selection process of workshops was juried by workshop co-chairs and members of the International Program Committee of INTERACT 2019.

Workshops preceded the main conference, running September 2–6, 2019. Only participants that submitted contributions were allowed to attend workshops. However, a dedicated session called "Workshops Summary Section" was held during the last day of INTERACT 2019 so that workshop organizers and contributors could report the outcomes of each workshop, receive comments, and interact with participants of the main conference.

Accepted workshops were allowed to establish their own reviewing process. However, to ensure the scientific quality of these post-proceedings we requested that papers selected for this volume should be peer reviewed by an international committee. After the workshop, authors were requested to revise their contributions including the comments and remarks they received during the event. Extended versions were then scrutinized again by the editors of the present volume.

The selected papers show advances in the field of HCI and they demonstrate the maturity of the work performed by IFIP TC13 WGs. We have selected 12 papers that are organized in 3 sections that correspond to IFIP TC13 workshops at INTERACT 2019.

It is important to mention that IFIP TC13 WGs are open to welcome new members. The full list of IFIP TC13 WGs is available at http://ifip-tc13.org/working-groups/ and we invite the interested readers to contact the officers for further information on how to get enrolled in WG activities such as the workshops organized at the INTERACT conference.

March 2020

José Abdelnour Nocera
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IFIP TC13 - http://ifip-tc13.org/

Established in 1989, the International Federation for Information Processing Technical Committee on Human–Computer Interaction (IFIP TC 13) is an international committee of 35 member national societies and 10 Working Groups (WGs), representing specialists of the various disciplines contributing to the field of Human-Computer Interaction (HCI). This includes (among others) human factors, ergonomics, cognitive science, computer science, and design. INTERACT is its flagship conference of IFIP TC 13, staged biennially in different countries in the world. The first INTERACT conference was held in 1984 running triennially and became a biennial event in 1993.

IFIP TC 13 aims to develop the science, technology, and societal aspects of HCI by encouraging empirical research; promoting the use of knowledge and methods from the human sciences in design and evaluation of computer systems; promoting better understanding of the relation between formal design methods and system usability and acceptability; developing guidelines, models, and methods by which designers may provide better human-oriented computer systems; and cooperating with other groups, inside and outside IFIP, to promote user-orientation and humanization in system design. Thus, TC 13 seeks to improve interactions between people and computers, to encourage the growth of HCI research and its practice in industry, and to disseminate these benefits worldwide.

The main orientation is to place the users at the center of the development process. Areas of study include: the problems people face when interacting with computers; the impact of technology deployment on people in individual and organizational contexts; the determinants of utility, usability, acceptability, and user experience; the appropriate allocation of tasks between computers and users especially in the case of automation; modeling the user, their tasks, and the interactive system to aid better system design; and harmonizing the computer to user characteristics and needs.

While the scope is thus set wide, with a tendency toward general principles rather than particular systems, it is recognized that progress will only be achieved through both general studies to advance theoretical understanding and specific studies on practical issues (e.g., interface design standards, software system resilience, documentation, training material, appropriateness of alternative interaction technologies, guidelines, the problems of integrating multimedia systems to match system needs and organizational practices, etc.).

In 2015, TC 13 approved the creation of a Steering Committee (SC) for the INTERACT conference. The SC is responsible for:

- Promoting and maintaining the INTERACT conference as the premiere venue for researchers and practitioners interested in the topics of the conference (this requires a refinement of the topics above)
- Ensuring the highest quality for the contents of the event

- Setting up the bidding process to handle the future INTERACT conferences (the decision is made up at TC 13 level)
- Providing advice to the current and future chairs and organizers of the INTERACT conference
- Providing data, tools, and documents about previous conferences to the future conference organizers
- Selecting the reviewing system to be used throughout the conference (as this impacts the entire set of reviewers)
- Resolving general issues involved with the INTERACT conference
- Capitalizing history (good and bad practices)

In 1999, TC 13 initiated a special IFIP Award, the Brian Shackel Award, for the most outstanding contribution in the form of a refereed paper submitted to and delivered at each INTERACT. The award draws attention to the need for a comprehensive human-centered approach in the design and use of information technology in which the human and social implications have been taken into account. In 2007 IFIP TC 13 also launched an Accessibility Award to recognize an outstanding contribution in HCI with international impact dedicated to the field of accessibility for disabled users. In 2013 IFIP TC 13 launched the Interaction Design for International Development (IDID) Award that recognizes the most outstanding contribution to the application of interactive systems for social and economic development of people in developing countries. Since the process to decide the award takes place after papers are sent to publisher for publication, the awards are not identified in the proceedings.

IFIP TC 13 also recognizes pioneers in the area of HCI. An IFIP TC 13 Pioneer is one who, through active participation in IFIP Technical Committees or related IFIP groups, has made outstanding contributions to the educational, theoretical, technical, commercial, or professional aspects of analysis, design, construction, evaluation, and use of interactive systems. IFIP TC 13 pioneers are appointed annually and awards are handed over at the INTERACT conference.

IFIP TC 13 stimulates working events and activities through its WGs. WGs consist of HCI experts from many countries, who seek to expand knowledge and find solutions to HCI issues and concerns within their domains. New WGs are formed as areas of significance in HCI arise.

Further information is available at the IFIP TC13 website: http://ifip-tc13.org/.

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IFIP TC13 Working Groups

WG 13.1 - Education in HCI and HCI Curricula

The Working Group 13.1 aims to improve HCI education at all levels of higher education, coordinate and unite efforts to develop HCI curricula, and promote HCI teaching.

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WG 13.2 - Methodologies for User-Centered System Design

The Working Group 13.2 provides an umbrella for academia researchers, students, and industry practitioners, who have an interest in fundamental theory, practices, and technology related to the user-centered design philosophy.

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WG 13.3 - Human-Computer Interaction and Disability

The Working Group 13.3 aims to make designers of information and communications technologies and complementary tools aware of the needs of these groups in order to encourage the development of more appropriate tools for accessibility and usability. As a result, systems will become more universally accessible and the market for them will increase.

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WG 13.4/2.7 - User Interface Engineering

The Working Group 2.7/13.4 encompasses activities of the Technical Committees on Human-Computer Interaction (TC13) and Software: Theory and Practice (TC2). It aims to investigate the nature, concepts, and construction of interactive systems. Advancing the state of the art in user interface engineering and science through meetings and collaborations between researchers who are experts in the system and user aspects of the engineering design of interactive systems. Engineering emphasizes the application of scientific knowledge and rigorous structured design methods to, predictably and reliably improve the consistency, usability, scalability, economy, and dependability of practical problem solutions.

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WG 13.5 - Resilience, Reliability, Safety and Human Error in System Development

The Working Group 13.5 aims to support practitioners, regulators, and researchers to develop leading edge techniques in hazard analysis and the safety engineering of computer-based systems.

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WG13.6 - Human-Work Interaction Design (HWID)

The Working Group 13.6 aims to encourage empirical studies and conceptualizations of the interaction among humans, their variegated social contexts and the technology they use both within and across these contexts. It also aims to promote the use of knowledge, concepts, methods, and techniques that enables user studies to procure a better apprehension of the complex interplay between individual, social, and organizational contexts and thereby a better understanding of how and why people work in the ways they do.

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WG 13.7 - Human-Computer Interaction and Visualization (HCIV)

The Working Group 13.7 aims to provide a creative work environment for performing innovative research at the interface between Human-Computer Interaction and Visualization.

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Nahum Gershon	The MITRE Corporation, USA

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Achim Ebert	University of Kaiserslautern, Germany

WG 13.8 - Interaction Design and International Development

The aims of the Working Group 13.8 is to support and develop the research, practice, and education capabilities of HCI in institutions and organizations based around the world taking into account their diverse local needs and cultural perspectives.

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WG 13.9 - Interaction Design and Children

The Working Group 13.9 aims to support practitioners, regulators, and researchers to develop the study of interaction design and children across international contexts.

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Secretary

Matthew Horton University of Central Lancashire, UK

WG 13.10 - Human-Centred Technology for Sustainability

The Working Group 13.10 aims to promote research, design, development, evaluation, and deployment of human-centered technology to encourage sustainable use of resources in various domains. These technologies would include interaction techniques, interfaces, and visualizations for applications, tools, games, services, and devices.

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Workshops Organized by IFIP TC13 Working Groups at INTERACT 2019

Workshop Jointly Organized by Working Group 13.2 and Working Group 13.5

Workshop on Handling Security, Usability, User Experience and Reliability in User-Centered Development Processes

Carmelo Ardito	Politecnico di Bari, Italy
Regina Bernhaupt	Eindhoven University of Technology, The Netherlands
Philippe Palanque	Université Paul Sabatier, France
Stefan Sauer	Paderborn University, Germany

Website: https://sites.google.com/site/ifipwg132workshopinteract19/home

Workshop Organized by Working Group 13.6

User Experiences and Wellbeing at Work (UX@Work)

Ganesh Bhutkar	Vishwakarma Institute of Technology (VIT) Pune, India
Virpi Roto	Aalto University, Finland
Pedro Campos	Madeira Interactive Technologies Institute (M-iti), Portugal
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Arminda Lopes	Madeira Interactive Technologies Institute (M-iti), Portugal
Frederica Gonçalves	Madeira Interactive Technologies Institute (M-iti), Portugal

Website: https://blogs.aalto.fi/uxatwork/

Workshop Organized by Working Group 13.7

Beyond Computers: Wearables, Humans, and Things - WHAT!

Organizers

Gerrit van der Veer	Association for Computing Machinery (ACM), USA
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Website: http://www.hciv.de/what19/index.html

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