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Computers Helping People with Special Needs

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Preface

Since its inception in 1989, ICCHP has evolved to become the largest European conference on accessibility and inclusion, and in particular on technical aspects such as eAccessibility and Assistive Technology. ICCHP addresses the many unnecessary barriers, physical or otherwise, that impede opportunities for work, education, and participation by people with disabilities.

It capitalizes on progress in all areas of technology that can contribute to remove these barriers. Artificial intelligence has certainly captured the lion's share of attention for technological trends in accessibility. Smartphone apps now read text, recognize objects, and automatically describe the content of pictures. Ever-improving speech understanding algorithms enable hand-free control of computers, appliances, or devices, with research ongoing on the recognition of dysarthric speech. Autonomous cars may in the near future provide individualized transportation to those who cannot drive, while exoskeleton systems will enable ambulation to people with paraplegia. Intelligent homes offer opportunities for independent living to those with reduced motion control. At the urban scale, mapping and localization systems are being deployed in public spaces to support orientation and wayfinding, or to identify safe paths to traverse for wheelchair users. It is encouraging that all major information technology companies have committed to including accessibility features in their products, and even started their own research labs in access technology.

Yet, sometimes innovation comes from the grassroots. Communities of makers have taken on the challenges of designing low-budget assistive technology, often involving people with disabilities in exciting co-design experiments. Crowdsourcing and micro-volunteering projects have evolved into accessibility platforms with thousands of contributors and users. The scope of ICCHP encompasses all of these technologies, with the common goal to build a more accessible, inclusive, and participative world.

In 2020, the proceedings of the 17th conference are delivered to you as a compendium of new and exciting scholarly and practical work going on in our field. ICCHP runs a highly competitive process for selecting the contributions for publication and presentation. The Program Committee, including 130 experts, guarantees that each paper is reviewed by at least 3 experts. 1 member of the panel of 15 conference chairs assesses the review results of each contribution to come to a final decision, which was made during online meetings held over 3 days. This two-phase selection procedure guarantees high scientific quality, making ICCHP unique to our field. 107 contributions were accepted and you will find them in the two-volume proceedings embedded in the structure of thematically grouped chapters. The concept of organizing Special Thematic Sessions again helped to structure the proceedings and the program in order to support a deep focus on highly desirable selected topics in the field as well as to bring new and interesting topics to the attention of the research community.

Due to the COVID-19 crisis, we decided to run the conference online only. Although we do hope that the situation becomes better, at the time of writing this

preface, travel and contact opportunities were frequently changing. We needed predictable organization and plannable programs, which could only be made available online. Running the conference virtually was challenging but also an important experience in terms of interaction and communication, in particular for accessibility. We still managed to host a high-quality and fully accessible meeting for scientists, users, practitioners, educators, and policy makers. We strive to be able to provide new and innovative opportunities for exchange and cooperation. The Service and Practice Track, organized in addition to scientific presentations, supported a cross-domain exchange and cooperation. ICCHP aims to support young researchers, the next generation of experts in our field, and encourages them to contribute. ICCHP accepts the challenge to provide new and innovative online conference spaces, aiming at less formal discussions. This important factor, supporting the transfer of knowledge so needed in our endeavors, must not be lost when moving online.

Thank you for your attendance at ICCHP 2020 and we hope that you and your colleagues to be regular participants in its most important mission, also recognized through patronage of the United Nations Educational, Scientific and Cultural Organization (UNESCO). It is here that research, innovation, and practical endeavors in important topics of Assistive Technologies and eAccessibility can come together to be shared, explored, and discussed.

September 2020

Klaus Miesenberger
Roberto Manduchi
Mario Covarrubias Rodriguez
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