Welcome to the 2015 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC) in Atlanta, Georgia, USA. If you are seeking the latest research on how people learn, express, and understand computational ideas and on novel languages, tools, and interventions aimed at improving the same, you have come to the right place. We're so glad that you've joined us, and we trust that you will find that this year's program continues VL/HCC’s tradition as the premier international forum for research on this topic.

For 2015, we adopted a special emphasis: Computational Thinking and CS Education. To promote this emphasis, we went to great lengths to recruit program committee members, keynote speakers, and workshops, and to attract research submissions, included the following text in the call for papers:

The push to enhance computational thinking and computing skills in education has never been stronger, with a number of high-profile movements actively working to establish computer science as a foundation in education (e.g., Code.org) and to broaden participation in computing among underrepresented groups (e.g., NCWIT). VL/HCC is well suited to this pursuit: learning and education are inherently human-centered, and the potential of visual languages to captivate users and remove barriers is well recognized. Thus, for VL/HCC 2015, we seek to place a special emphasis on education-oriented topics. To this end, we strongly encourage the submission of works on visual languages and human-centric computing that, for example, explore theories of human learning, propose new methods and tools to enhance learning, and empirically investigate and evaluate learning in a variety of computing contexts.

Our efforts were rewarded, and this special emphasis is reflected throughout the program.

In terms of the technical program, we received a total of 75 paper submissions, comprising 62 full papers and 13 short papers. All papers were independently reviewed by at least three members of the Program Committee. Once the initial reviews were completed, the authors had the opportunity to provide a response to the reviews, and the committee discussed and revised their reviews as they saw fit. In the end, we accepted 18 of the 62 full-length paper submissions (29%), and 5 of the 13 short-paper submissions (38%). To round out the technical program, we also accepted 13 additional full-length papers as short papers.

These research submissions were strong indicators of the global interest in the VL/HCC research areas. Our submissions came from 200 distinct authors from 15 countries across North America, Europe, East Asia, Australasia, and South America. Furthermore, the accepted submissions comprise more than 130 authors from 9 countries (descending by frequency): USA, UK, Canada, Germany, Japan, Australia, Brazil, Netherlands and Italy.

The works accepted to appear in the program cover a wide range of VL/HCC themes and topics. Not surprisingly, a substantial number of works touch on our special emphasis, computational thinking and computer science education. However, numerous works also cover other VL/HCC topics, including end-user development and end-user programming, novel interaction techniques for visual languages, debugging and program understanding, collaborative systems, tools for training novice programmers, empirical field studies of programmers, domain-
specific languages, and expanded spreadsheet programming paradigms. This range of topics is evidenced, for example, by the range of paper session themes.

In addition to the technical papers, VL/HCC ’15 features keynote talks, a Showpieces event, the Graduate Consortium, and a co-located workshop. This year’s keynote speakers, Mark Guzdial and Franklyn Turbak, both fit well with the conference’s education theme. Mark Guzdial is a Professor at Georgia Institute of Technology whose research aims to expand knowledge of how people learn about computing and to design interventions to improve learning. His keynote, titled “Requirements for a Computing-Literate Society”, will explore the questions faced by educational systems around the world as they wrangle with the place of computing education in their curricula. Franklyn Turbak is an associate professor of Computer Science at Wellesley College whose research aims to improve the expressiveness and pedagogy of programming languages, with an emphasis on blocks languages, such as MIT App Inventor. His keynote, titled “Taking Stock of Blocks: Promises and Challenges of Blocks Programming Languages”, will consider the possible future directions for blocks programming languages, especially with regard to bridging the gap between “toy” educational languages and “real” textual languages.

The Showpieces, Graduate Consortium, and co-located workshop all further enhance the VL/HCC ’15 technical program with more new and emerging research. We will have an evening reception for the Showpieces, which include research posters, demos, and other interactive displays. The Graduate Consortium is an all-day event that provides graduate CS students an opportunity to exchange feedback on their research ideas with an intimate group of student peers from other universities and established researchers in the field. The workshop, titled “Blocks and Beyond: Lessons and Directions for First Programming Environments,” is a one-of-a-kind event that brings together researchers of educational blocks programming languages to exchange ideas and establish new directions.

VL/HCC ’15 would not be possible without the contributions of many sponsors and community members. We extend our deep gratitude to sponsors and organizers enumerated on the following pages. Last but not least, we thank you—the authors and attendees of VL/HCC. It is through your efforts in research and practice, your time in writing and submitting your papers, and for many of you, the long distances you have travelled to be with us here in Atlanta that makes the conference great.

We hope that you find VL/HCC ’15 intellectually stimulating, that you take advantage of the events occurring both before and after the main conference, that you enjoy meeting up with old colleagues and forging links with new ones, and that you have fun exploring the many attractions of Atlanta and the surrounding areas. Once again, welcome!

Eileen Kraemer
General Chair

Claudia Ermel and Scott Fleming
Program Chairs