

## **Preface**

The 4th European FabLearn conference FabLearn Europe 2019: Conference on Creativity and Making in Education in Oulu, Finland, was hosted by University of Oulu, one of the northernmost multidisciplinary universities in the world, where science is done “with an arctic attitude.” It was organized by INTERACT Research Unit from Faculty of Information Technology and Electrical Engineering, in collaboration with University of Oulu Fab Lab.

FabLearn Europe 2019 brought together international researchers, educators, designers, and makers to explore, discuss, and develop digital fabrication in education, making, and hands-on learning for the 21<sup>st</sup> Century. FabLearn Europe 2019 is associated with the global FabLearn initiative, it is organized as a European sister conference to the global FabLearn conference, and it builds on this strong and dedicated community that has been developing this event over the past 5 years.

A total of 35 full papers, poster papers, workshop papers, and demonstrations papers were submitted for the conference. They were all carefully evaluated using double-blind review process and each of them had an average of 2.3 reviewers. We would like to extend our gratitude to our reviewers who have volunteered to spend their time and effort to provide quality reviews for these submissions. Finally, based on the reviews 25 submissions were accepted for the conference: 6 full papers, 12 poster papers, 5 workshops papers, and 2 demo papers. The total acceptance rate was 71%. The 2-day FabLearn Europe 2019 conference brought together researchers, educators and practitioners not only from Finland and Scandinavia, but all over Europe and beyond, including participants from countries such as Belgium, Brazil, Greece, Italy, Germany, Netherlands, Portugal, and Switzerland.

The keynote speaker for the conference was Linda Liukas. She is the founder of Rails Girls global movement that teaches programming basics for young women. She is also the author and illustrator of Hello Ruby book, which introduces children into the world of computers.

The conference presentations included a variety of topics, such as creativity, learning, collaboration, design, participation, empowerment, and safety. The presentations also addressed these topics in divergent contexts ranging from higher education to kindergartens as well as to libraries and other informal learning sites.

We would like to thank the supporters and sponsors of this conference, as well as all organizers, reviewers, authors, and everybody who has contributed to make this conference a successful and memorable event.

Netta Iivari  
Marianne Kinnula  
Mikko Rajanen

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