

# Preface

The world and society are becoming more and more complex thanks to the transformational power of digital information and communication technologies. Digital transformation changes all spheres of human activity and opens new horizons for innovation, development, and welfare. Yet it also poses new challenges for our society asking how we should react and adapt to the ongoing innovation, be it the emergence of new ways of political participation, education, and science, urban planning, and health care. For scholars, the process of digital transformation brings about a broad, multidisciplinary research agenda with plenty of puzzles to solve and questions to answer.

These were the issues we kept in mind when organizing the new international conference “Digital Transformation and Global Society” (DTGS 2016). It was held on June 22–24, 2016 in St. Petersburg, Russia. The conference was hosted by ITMO University and was also co-organized by the University of Amsterdam, the European University at Saint-Petersburg, and the e-Development Partnership in the north-west of Russia (PRIOR North-West).

The conference became a successor of another significant international event – the international joint conference “Internet and Modern Society” (IMS) held annually in St. Petersburg since 1998. It brings together researchers and experts from all over Russia and abroad to discuss a wide range of information society issues. The IMS conference has become a well-established forum recognized by academic scholars and practitioners for offering a great opportunity to collaborate in knowledge exchange. Building on this unique and long-lasting legacy, in 2016, IMS acquired a stronger international dimension under the DTGS umbrella – an Information Society Technology Week at ITMO University with the aim of attracting new international researchers and raising the quality of submitted papers.

The present volume contains the papers presented at DTGS 2016. We received 157 submissions; each of them was reviewed by at least three, and in some cases by four, international Program Committee members. The committee accepted 61 papers, with an acceptance rate of 39%. The papers in this volume attempt to describe the emerging digital transformation challenges and to offer research insights addressing these challenges from both social and technological perspectives.

The structure of this volume corresponds to the five DTGS 2016 tracks:

- eSociety, with issues regarding the mutual adaptation of technologies and sociopolitical systems. Owing to the large number of papers, the track was divided into two: E-Government and E-Participation, and New Social Media Studies.
- eKnowledge, devoted to the prospects, practices, and perils of the usage of new technologies in the sphere of knowledge-sharing and innovations in educational and academic activities.
- eCity, presenting the state of the art in the theory and practice of smart city technologies, municipal development and urban/rural planning and management.

- eHealth, bringing together scientists to discuss current trends the usage of ICTs in health care.
- eScience, encompassing questions of scientific development due to new technologies, big data research, and collaborations between social and technical fields of inquiry.

The conference started with the posters and ongoing research session. The best short papers are included in the volume along with the full papers from seven plenary sessions and workshops.

Two keynote reports were presented as well:

- Professor Peter Sloot (University of Amsterdam) presented an insightful report on “Complexity Science and the Internet of Things,” explaining how the latter may help to understand complex systems, “from a biological cell... to millions of computer systems... to our society.”
- Latif Ladid (University of Luxembourg), Founder and President of IPv6 Forum, shared his view on the future of the Internet and perspectives on the use of IPv6 in innovations, such as the Internet of Things, cloud computing, and smart cities.

We would like to thank all those who made this event possible and successful. We especially express our gratitude to all Program Committee members for their contribution to the high academic level of the event. We thank all the authors for presenting their excellent papers and also the session chairs, who led fruitful discussions. We are also grateful to all organizers, representatives of institutions, and hosts who contributed to the success of this conference. Finally, we are proud to attract a great team of scholars from different countries and disciplines and, as discussed at the conference, we will work further to sustain and expand the DTGS community through continuous research and collaboration. We believe that the DTGS has the potential to turn into a new important forum for fruitful academic discussion.

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