
Communities in New Media. Researching the Digital Transformation in Science, Business, Education & Public Administration

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1 Introduction

Digitalization is more than ever the top topic in economics, science and societal developments. Infrastructures and competencies are at the forefront of many debates. The question of which industry is or will be affected by digitization next and to what extent is not only driving executives around. While information technology innovations were something for so-called ‘(hyper-)nerds’ until recently, it has become an everyday item. We seem to have embarked on permanent change. But where does the journey actually go? Are large amounts of data a threat or an opportunity? Can we even process them or do we need fundamentally changed tools and methods - such as Visual Analytics, Virtual Reconstruction, Virtual Engineering? The 22nd GeNeMe has taken up these issues and will present them in various discussions.

The conference is managed by a group of scientists from the Faculties of Education and Economics as well as the Media Center of the Technische Universität Dresden, with the kind support of Silicon Saxony e.V. Partner universities support the University of German Statutory Accident Insurance (HGU), HTW Dresden, the FH Dresden together with the Dresden International University (DIU) as co-organizers on both contents and organization of the 22nd GeNeMe 2019. An international Steering Committee has previously conducted the selection of the more than 50 German and English language submissions in the form of a double blind peer review. In the result of it these conference proceedings could have been produced.

2 Thematic Focus

2.1 Knowledge Communities

The digital transformation demands new business models. Knowledge-intensive work processes go hand in hand with online communication, and customers also become part of specific communities. Processes and structures not only in virtual enterprises have to be redesigned if not to be designed new at all. It is important to clarify whether production, processing and service can be separated in a digital economy which specific sectors (logistics, security, healthcare, IT, etc.) are essential.

2.2 Augmented and Virtual Realities

The boundaries between physical environment and virtuality are becoming increasingly blurred and in many cases no longer perceived separately. Applications guarantee hybrid experiences and mixed reality concepts are being considered as promising scenarios for knowledge sharing in product development, multi-stakeholder communication or sales.

2.3 Public Spaces

Design approaches for public spaces are inconceivable without online communication; digital transformation is becoming the framework of action of public administration. How is the interaction between different communities and actors from business, civil society and the public sector shaped during the administrative process? What about competencies for eGovernment and the sustainability of cooperation in the public sector?

2.4 Architectures of Knowledge Cooperation

Knowledge exchange does not work without suitable architectures of knowledge collaboration. Learning in and with digital media is present and the future. Knowledge cooperation and collaboration, also in education, takes place in virtual space. Not only is organizational digitization coming into focus, it's also about space and architecture itself. Multilocal innovation communities need platforms for their digital knowledge work in industry, science and education.

2.5 Knowledge Genesis & Information Visualization

More strongly than in previous years, the conference addresses issues of knowledge creation, not only in research. How can innovative knowledge stocks with the participation of different actors come about, which roles do individual contributions play and how can they be made visible to all participants? Negotiation of meaning requires a suitable visualization - beyond the learning of already known?

2.6 Gamification & Motivation Design

Games are part of our everyday life, in leisure time, education, personnel development or organizational design. Everyday tasks are designed to be emotional and motivating, people get together and manage problems together or in competition. In principle, the development of communities and social networks is promoted or made possible by the application of user- oriented and experience-oriented design principles.

2.7 Human-Computer-Communication renewed

Without Siri and Alexa, we seem lost. HCI is part of our everyday life, smart devices are usually perceived as a blessing. What will be? Are existing fears justified? Are we actually at the beginning of a new era in which we, together with bots, shape the digital transformation in an Industry 4.0 and then release it either into autonomy or into cooperation in hybrid communities?

3 Acknowledgments

As in previous years, GeNeMe opens up to interested parties from the English-speaking world - with German remaining the prevailing language of the texts published here. With regard to the improved international visibility of the GeNeMe community, it should be mentioned that indexing at Scopus via Elsevier is now effective and will also open up the conference proceedings presented here - as soon as it is available in full text in the Open Access System of the TU Dresden at www.qucosa.de has been made available. In the open access repository Qucosa you will find the texts of all GeNeMe predecessor volumes since the beginning of the conference series in 1998.

The editors especially want to thank all the authors whose contributions give this volume a special quality. Likewise, our thanks go to the more than 40 experts from science and industry. Only through their professionally competent work as members of the program committee has it been possible to focus on the topic and the numerous contributions to make the present selection and also to be able to provide the authors of rejected contributions with constructive, detailed feedback.

Finally, our thanks go to the review process, to the compilation of manuscripts for the conference proceedings, to the operation of the online review system and to the administration and implementation of the 22nd GeNeMe as a whole! Ms. Nicole Filz has taken over the editorial support as well as the layout of the present volume in a tried and tested manner. Mr. Torsten Sauer looked after guests, lecturers and supporters of the conference in an exemplary manner while Ms. Lisette Hoffmann accompanied the planning and implementation of the conference didactics together with a group of students.

We wish you, the readers, once again an inspiring reading!

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