TU Darmstadt | FB18 | KOM | Rundeturmstr. 10 | 64283 Darmstadt

In 2015 our research focus was to a large extent driven through mobile scenarios. My research visits to Madrid as part of my "Cátedra de Excelencia" at UC3M and IMDEA Networks helped to broaden and deepen the research represented by the following questions: Which adaptive communication systems und protocols will constitute the future Internet? How can one provide a reliable mobile infrastructure for the exchange of information, especially considering an increasing load in mobile networks through growing data transfer volumes? When and how can new adaptive technologies and services from the Internet of Things be incorporated into the existing infrastructure?

To this end we research how transitions and an array of adaption methods in communication systems can help to achieve the quality requirements of users under highly dynamic and changing conditions. A lot of these activities are addressed in the DFG funded collaborative research centre MAKI where we explore transitions of communication mechanisms. In the long term we expect that through transitions the multitude of existing and new communication mechanisms and protocols can be harnessed in order to fulfil the increasing requirements and scenarios in the future Internet.

In a research project under the auspices of the German Federal Office of Civil Protection and Disaster Assistance we investigate a scenario where mobile devices turn into rescue devices in emergency situations. The envisaged concepts form the basis for a smartphone application that allows maintaining structured communication between people in emergency scenarios. Context recognition plays a very important role here: for example, by determining when and why a message is important, information can be prioritised in order to limit further potential damage. In a Hessian State funded LOEWE project we start with the premise that the network infrastructure is damaged after a natural disaster. However, the network infrastructure itself is paramount when people need to organise themselves quickly in order to find or to provide help. In this interdisciplinary project we jointly explore with colleagues from other disciplines how one can rapidly set up an alternative infrastructure with the aid of the remaining resources.

Context also plays a significant role in two federal government funded BMBF projects dealing with new learning technologies. Over the past years we developed together with partners a mobile learning platform in form of a smartphone application that helps automotive service engineers to improve their knowledge of electro-mobility at their workplace. Based on context information collected from sensors the application provides the training chapters in accordance with the specific task at hand. We will continue to pursue this research in the coming years as part of a new BMBF project. There, we shall not only develop a concept for context-aware learning but also connect trainees and instructors across different study locations.
Digital technologies change production processes and business models: Consequently, many companies require assistance for questions concerning digitalisation. Following the e-business guide Darmstadt Dieburg project we now can share our knowledge on new learning technologies and knowledge management over the next three years in a federal government funded BMWi follow-up project on Industry 4.0 for SMEs. TU Darmstadt is embracing the rapidly developing trend towards further digitalisation through the profile area "Internet and Digitalisation", where I serve as spokesperson. We will extend the successful work from the research cluster Future Internet and plan together with other

TECHNISCHE UNIVERSITÄT DARMSTADT

Prof. Dr.-Ing. Ralf Steinmetz

Multimedia Communications Lab (KOM)

Department of
Electrical Engineering and Information Technology
Department of Computer Science
(Adjunct Professor)

Rundeturmstr. 10
64283 Darmstadt
Germany

Tel. +49 6151 16 - 29101
Tel. +49 6151 16 - 29100 (secretary)
Fax +49 6151 16 - 29109

Ralf.Steinmetz@KOM.tu-darmstadt.de
www.kom.tu-darmstadt.de
www.multimedia-communications.net

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domain experts from Darmstadt interdisciplinary new collaborative projects towards digitalisation in networked production. Apart from the production sector, the financial sector is also affected by radical changes due to digitalisation; we continue to investigate this with colleagues from the E-finance Lab in Frankfurt, supporting them with our expertise on distributed processes, networking and cloud computing.

In the area of Serious Games we focus on the fundamental adaptive and networked technologies, specifically within the health domain: This comprises hands-on methods and directed training programmes for spinal and back muscle diseases for problem prevention as well as rehabilitation. As part of an EU project a back muscle trainer is to be developed in cooperation with the Berlin university hospital Charité, where game technologies such as the Nintendo Balance Board are deployed in conjunction with personalised and adaptive training concepts. Furthermore, in collaboration with companies we are conceiving a system to examine how new virtual reality technologies affect the well-being of the users.

Our researchers are to be congratulated on their outstanding achievements, with a total of 39 publications and a best paper award so far. Further, Christoph Rensing was General Chair at EC-TEL 2015; Stefan Göbel successfully organised the Dagstuhl seminar on Entertainment Computing and Serious Games, and – based on GameDays – the first Joint Conference on Serious Games. We are especially happy that MAKI was recognised as a "Landmark in the Land of Ideas" in the Federal government sponsored competition. Following the Chair of Excellence appointment at Universidad Carlos III de Madrid I also had the opportunity to research on the Internet of the future in Madrid. Finally, after six years as the Editor-in-Chief of the ACM Transactions on Multimedia Computing, Communications and Applications (TOMM) I am handing over this time-consuming but rewarding duty to my successor at the end of the year.

This year Dominik Stingl and Viktor Wendel could successfully defend their PhD theses. We also would like to welcome our new colleagues Nils Richerzhagen, Rhaban Hark, Patrick Lieser, Augusto Garcia and Florian Jomrich to our team. Furthermore, Steffen Schnitzer, The An Binh Nguyen, Patrick Lieser and Daniel Burgstahler have been accepted in the renowned Software Campus programme that supports young researchers on their way to managerial roles in companies. Another subject that we embrace wholeheartedly (and not just during Christmas) is solidarity and family. Together with MAKI we set up a parent-child room. In this room parents can carry out research in their usual work environment being near their colleagues while still having their child in sight. The experiences so far have been great and we would be glad to share them with everyone interested in implementing a similar concept at their workplaces.

Those, who would like to stay in touch with us throughout the year, can find the current scientific publications on www.kom.tu-darmstadt.de, and projects and opinions from everyday research on http://blog.multimedia-communications.net. Furthermore, you can reach us via e-mail, phone, or directly at our office. We are always open to new ideas and topics. We look forward to your feedback!

Ralf Steinmetz