

Perspectives Workshop: Digital Social Networks Executive Summary

Editors

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The Perspective Workshop on “Digital Social Networks” held in between January 25th and 29th, 2010 at the research centre Schloss Dagstuhl focused on technological, socio-economical, and political aspects of digital social networks, and, more generally, digital social media. Digital social media give rise to users and communities to collaboratively generate and exchange content and to interact. They enable social computation, i.e. computations that involve both software and groups of people. They are operated by specific software systems called social software and use information and communication technologies such as the Internet and Web technologies. Digital social media ease and strengthen social interactions by overcoming physical limitations in communication (like distance and synchronicity) and alleviating human limitations like the number of people with whom one can maintain relationships. Digital social media build, and/or rely upon, social networks that might be the primary purpose of the media. The workshop participants identified the following issues as today’s major socio-economical, political, and technological challenges of digital social media:

Social Media Literacy

Digital social media re-launch social communication and expression. Therefore, they challenge to re-consider self-expression, self-perception, social identity, and social participation. Awareness of both, the possibilities and dangers of digital social media, is still insufficient and needs to be strengthened. In order to avoid a digital social media divide, social media literacy must be promoted.

Digital Social Media Governance

The reshaping of our society, culture, and economy through digital social media implies a need for novel policies and therefore represents major political challenges. Debated current issues include privacy, the ownership of user-generated content, and update and exploitation rights on such contents. There is the challenge to find an appropriate societal balance between regulation and free media usage and to deliver translations into technical solutions.

Technological Challenges

Digital social media must move to new levels of social scalability. As one-to-many distribution models move on to many-to-many architectures, they must avoid an information overloading of their users. Research and further development in the areas of content selection and user attention management are essential. Moreover, the improvement of social media usability, in particular the development of appropriate user interfaces, is required. The problem is most pressing in the mobile domain and for elderly and impaired audiences. Digital social media, especially today’s social networks, predominantly grow and persist as ‘segregated data silos’. As interoperability is a pre-requisite to user control of user-generated data, the development of interoperable systems and definition of novel standards are required. Today’s media build more and more upon pervasive digital-physical systems able of so-called ambient intelligence and of adaption to geographical and social contexts. Conceiving and bringing ambient intelligence and adaption to their full potentials represent considerable technological challenges for the further development of digital social media. How news and ideas widespread in a community and how such a wide spreading can be initiated or enhanced by algorithms is, possibly, one of the most challenging technological issues.

The workshop participants identified an urgent need for action in education, fundamental and applied research:

- Digital social media should become both, subject of teaching and tools, at primary and secondary schools.
- Interdisciplinary study courses and doctoral schools in social and human computation should be started at universities.
- A “Priority Programme” of the “German Research Foundation” in social and human computation should be initiated.
- European and national funding programmes should open up to applied research in digital social media, i.e. allow for a joint academic-industrial research accessible especially to small and medium sized enterprises.

The workshop participants are convinced that a fast deployment of actions in education, fundamental and applied research like the aforementioned is necessary for giving Germany and Europe a good position to be at the cutting-edge of digital social media research and education.