

Immersive Participation

Immersive Participation is a strategic and thematic research agenda focused on participation and presence in a networked society enabled by ubiquitous connectivity, networked media and distributed sensing & visualization. Immersive Participation is concerned with scenarios which involve crowd-sensing, crowd-sourcing and datamining where such technologies come into play to address societal challenges, such as learning, health, (serious) gaming, and transport, etc.

Immersion is about tapping into and providing users with experiences of people, places and things everywhere. The technologies involved enable participation and interaction blending what is real or virtual, remote or local, as well present or past (i.e., mixed- or augmented reality) as if immersed.

Participation and Engagement in a Connected Society

The research focuses on enabling new ways of participation in society, and allows us to rethink application areas such as Culture, Public Decision-Making, Transport, e-Health, etc.

The massive sharing and access to user & sensor information and multimedia has radically altered how we may interact on the Internet with each other and the things that we use. The research therefore faces a variety of challenges, both technical and otherwise. The provisioning of such experiences in real-time via mobile services has to negotiate unreliable and heterogeneous means of communication

The massive scale of access to rapidly changing global information requires new mechanisms for self-organization in order to maximize its utility in a local context without flooding Internet. Key topics such as presence and awareness mandate research in new mechanisms and protocols for efficient and scalable acquisition, dissemination, and discovery of such information along with modeling. Further, the research will break new ground with respect to studying new user experiences entailing novel presentation and interaction technologies for distributed immersive, mixed-reality experiences, with integration of different modalities.

Internet-of-Things

The research in Distributed Immersive Participation is particularly concerned

with the massive and scalable sharing of user information from various sources as well as sensor & actuators (be it spatial, visual or otherwise related to physical parameters). The Information sharing occurs in real-time in order to make enable timely and intelligent service decisions in different user scenarios, such commuting, healthcare, pervasive and serious gaming, etc.

The research has created an Internet-of-Things platform (mediasense.se) for the design of services, applications various scenarios addressing societal challenges involving crowd-sourcing and crowd-sensing facilitating intelligent decisions. Equally importantly the development platform and experimental test bed permits the study of novel methods for meeting existing and investigating new societal challenges.

The MediaSense IoT-platform is used federate and host services in EU and Swedish national projects. Experimentations extend test populations toward new socio-cultural groups such as e-government, elderly people in ambient assisted- (AAL) and sustainable living situations, as well a personal mobility for optimizing urban transport solutions

The research is carried out in collaboration with partners in industry, authorities, policy makers, and society nationally and internationally in- and outside the EU.



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Please consult the weblink below for contact information.

Focus areas

Ubiquitous Connectivity

Networked Media

Distributed Sensing and User Information

Ongoing projects

EU FP7 MOBIS

EU AAL SALIG++

Vinnova eGov National Testbed