

P R E S S R E L E A S E

With social networks to crisis detection – EU project ODYCCEUS has started

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ODYCCEUS Opinion Dynamics and Cultural Conflict in European Space, a new interdisciplinary EU-funded project, is focused on social networks with their different mechanisms of communication. Coordinated by the Max Planck Institute for Mathematics in the Sciences in Leipzig, Germany, ODYCCEUS will be supported by the European Union's research programme Horizon 2020 for the next four years with an amount of 5.8 Million Euro. This week all project partners meet for a kick-off-meeting in Leipzig.

Our society is facing a series of extraordinary challenges at a global scale – from climate change with its unforeseeable consequences, terrorism, armed conflicts, and the resulting refugee movement to extreme political convictions. At the same time, rapid and far-reaching developments in the information sphere, like social networks and web technologies are leading to profound changes in the way individuals communicate and express themselves. "Can the information circulating on these platforms be tapped to better understand and analyse the enormous problems facing our contemporary society? Could this help us to better monitor the growing number of social crises due to cultural differences and diverging world-views? Would this facilitate early detection and perhaps even ways to resolve conflicts before they lead to violence?" with these questions Dr. Eckehard Olbrich, project leader at the Max Planck Institute describes the central problems of the project. "The ODYCCEUS project answers all these questions affirmatively. We will develop the conceptual foundations, methodologies, and tools to translate this bold vision into reality."

Project partners are the University of Leipzig, Germany, Universita Ca' Foscari Venice, Italy, Chalmers University of Technology, Gothenburg, Sweden, the Parisian Universities Pierre-et-Marie Curie and Paris-Diderot, France, Vrije University Brussels, Belgium and the University of Amsterdam, Netherlands.

Social networks as Facebook and Twitter, different web-based discussion forums, and the numerous news channels represent immense sources of data. The project aims to elicit this large amount of daily generated text data both for improving its analysis and practical use.

We live at the moment in a very turbulent world, partly caused by cultural conflicts and different world views, by conflicting multilateral interests, and by rapid information flows in social and digital media. This is posing significant challenges to the social sciences. They are asked to better foresee the emerge of a conflict, understand why different groups clash, how cognitive dissonances can escalate into violence or political instability, and how members of a complex multicultural society can live together in a stable way.

One of the main issues in ODYCCEUS is the detection and observation of political opinions to gain empirical understanding of societal issues and processes. Today we observe new dimensions in political disputes and methods from automatic text analysis should help investigating this phenomenon of the reconfiguration of political spaces. The scientists will work on the development of special tools for both observation and visualisation of the main streams of political discussions on very different levels. An important role is played by the mathematical modelling of the observed dynamics with the aim to develop empirically informed opinion dynamics in political spaces including models of orientation and polarisation. The detection and understanding of the significance of cultural differences and diverging world-views should help to gain insights in the dynamic of socio-political developments and conflicts and provides a great opportunity to their non-violent resolution.

In order to master this challenge, an interdisciplinary cooperation of very different research disciplines is required. The project partners work in the fields of humanities, social sciences, political sciences, media studies, behavioral economy, geography, computer sciences, artificial intelligence, and mathematics. Theoretical models and methods, for instance, game-theoretic elements, provide the basis for the understanding of conflicts as a result of cultural differences. Furthermore, they allow abstractions from single phenomena to the general and a portfolio of case studies will serve as a testbed for the evaluation and validation of these results. Sophisticated methods of text-analysis and the development of appropriated algorithms ensure the identification of political statements and of fine-grained opinion-representations and expressions of cultural conflicts in the web. Geomedia methods study information flows that structure the international public space and lead to the identification of agenda settings in European space.

In the course of the project a new open platform with innovative participatory tools will be developed so that the invisible and fast moving social dynamics now ranging in the digital media become visible to social scientists but also to a broad user community. Their participation and input in turn will help to push forward science in this field.

„Our vision is a contribution to a better understanding of the dynamics of public debates both scientifically and also by the general public. There is a great chance for alignment and conflict resolution in a world with increasingly heterogeneous cultural bias and multilateral interests.“ Eckehard Olbrich summarises the project goal.

Information about the project:

ODYCCEUS Opinion Dynamics and Cultural Conflict in European Space

www.odycceus.eu

Information about the Max Planck Institute for Mathematics in the Sciences

www.mis.mpg.de

Information about EU Research program Horizon 2020

www.ec.europa.eu/programmes/horizon2020

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