Being Prepared: Smart Data in Disaster Risk Management

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sd-kama is an information platform for relief forces in the field of disaster management and control, that is currently under development. Flood events in Cologne serve as an example which is examined as part of the project. The platform provides access to a huge amount of data from various sources in real time. Nowadays, information about the scope and magnitude of a disaster is generally not accessible fast enough during the event. sd-kama changes this situation. The platform aggregates information from satellite, traffic and other open data sources as well as comments, photos and videos uploaded by rescue forces or disaster-affected citizens and stress levels of relief forces. The information is presented in digital situation maps, which are easy to use. sd-kama provides complete and real time situation maps with unprecedented information density.

The IT infrastructure included in the sd-kama platform integrates processing and analysis of a huge amount of heterogeneous data in real time. Big data technology allows integrating and analyzing data from different sources and displays information depending on user requirements. In addition to satellite and aerial survey data, information on water levels, traffic situations, stress levels of relief forces and information from social networks such as photos, videos and comments uploaded by disaster-affected citizens and rescue teams is available. All necessary steps for intelligent supply of information are fully automated. The project partners are developing effective integration processing and evaluation software tools. The project goal is the creation of a central standardized information platform, which allows efficient management of disaster from the local to the national level.

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