Communication and flood risk awareness in the framework of DRIHM project

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One of the main objectives of the Hyogo Framework for Action 2005-2015 of the United Nations is to increase public awareness so as to understand the risks, vulnerabilities and disaster reduction globally. In the case of floods they are a major hazard in Spain. In the last 30 years alone, more than 300 flood and flash-flood events have been recorded. Usually these events produce minor damages and, occasionally, some deaths, usually due to imprudent behavior. In this context, improvements in the forecast and warning systems, the communication process and for the population to have a better knowledge using new technologies are welcome. The starting point of this communication is the analysis of the treatment of flood events made by the press, the risk perception of the population, as well as the communication tools and protocols of Civil Protection and Water Catalan Agency (ACA) in Catalonia (NE of Iberian Peninsula). Afterwards, the analysis of the application of new tools developed by the University of Barcelona, with specific emphasis on the collaboration with the population, is shown. La Rambla is an informative portal of flood prevention, where share knowledge and experiences with the population. It is also a historical flood site where everyone can contribute and participate by sending experiences, data, records, pictures and much more. In La Rambla we can find information such as flood prevention plans, acts, scientific vocabulary ... There are also sections on historical floods, photo galleries, quizzes, flood news, and much more. The blog will be also used as a platform to distribute post-event questionnaires in order to analyze social impact as well as the population behavior when faced with a flood. Besides this, social networks are some of the most important channels where warnings and flood risk situations can be communicated. In the case of Facebook and Twitter, we use the platforms as a warning channel, to have a simple monitoring of the event and introducing some explanations to understand the situation, as well as to recommend scientific lectures or show new achievements.

This work has been developed in the framework of the "FP7 DRIHM (Distributed Research Infrastructure for Hydro-Meteorology, www.drihm.eu) project that intends to develop a prototype e-Science environment to facilitate this collaboration and provide end-to-end hydrometeorological services (models, datasets and post-processing tools) at the European level, with the ability to expand to global scale. The objectives of DRIHM are to lead the definition of a common long-term strategy, to foster the development of new HMR models and observational archives for the study of severe hydrometeorological events, to promote the execution and analysis of high-end simulations, and to support the dissemination of predictive models as decision analysis tools. The project also aims to give students and professionals some tools to simulate flood events by combining different meteorological models with different hydrological models. Some of the cases of study are also used as an example for the communication tools, which includes, besides those previously showed, a newsletter and some videos.