



## The «Natural Hazard WIKISAURUS»: explanation and understanding of natural hazards to build disaster resilience

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In the Internet and Web 2.0 era, the need of information is increased. Moreover, recent major and minor disasters highlighted that information is a crucial element also in emergency management. Informing the population is now the focal point of any civil protection activity and program. Risk perception and social vulnerability become widely discussed issues “when a disaster occurs”: a “day-after” approach that should be replaced by a “day-before” one. Is that a cultural problem? Is it a communication issue? As a matter of fact, nowadays academics, experts, institutions are called to be more effective in transferring natural hazards knowledge (technical, operational, historical, social) to the public, for switching from «protection/passivity» (focused on disaster event) to «resilience» (focused on vulnerability). However, this change includes to abandon the “Elites Knowledge” approach and to support “Open Knowledge” and “Open Data” perspectives. Validated scientific information on natural hazards is not yet a common heritage: there are several cases of misleading or inaccurate information published by media. During recent Italian national emergencies [Flash Floods Liguria-Toscana 2011, Earthquake Emilia-Romagna 2012], social media registered people not only asking for news on the disaster event, but also talking trivially about scientific contents on natural hazards.

By considering these facts, in the framework of a PhD program in Earth Science, a joint team UNITO-NatRisk and CNR-IIA conceived the web project “Natural Hazards Wikisaurus” [NHW], combining two previous experiences: “HyperIspro” - a wiki on civil protection set up by Giuseppe Zamberletti, former Italian minister of Civil Protection - and “Earth Thesaurus”, developed by CNR-IIA. The team decided to start from the «words» using both the collaboration of the wiki concept (open and participatory knowledge) and the power of explanation of a thesaurus. Why? Because a word is not enough, as a term has not a unique meaning: e.g. Mercury could stand for the Roman god, the metallic element, the planet, or Freddy the singer. Similarly the word «alert»: in the common language has a certain meaning, whilst in the civil protection framework includes regulations, responsibilities and procedures. The NHW is intended as a collaborative virtual source with validated information on geosciences to support a common understanding of natural hazards, risks and civil protection. The NHW aims to become a point of reference both for acknowledged practitioners, who will share their expertise and data, and for citizens, civil servants, media representatives, and students allowed to comment and contribute to the scientifically validated content. The NHW is a simple tool to support information and communication on natural hazards and civil protection at all levels and would set up a shared and common knowledge. Moreover, NHW could represent the first step of a further challenging programme: through the power of «linked data» NHW could develop and contribute first to a natural hazard semantic, then to a «semantic disaster resilience».