



Italian codified hashtags for weather warning on Twitter. Who is really using them?

Valentina Grasso (1,2), Alfonso Crisci (2), Paolo Nesi (3), Gianni Pantaleo (3), Imad Zaza (3), and Bernardo Gozzini ()

(1) LaMMA Consortium, Italian National Research Council Tuscany Region, Florence, Italy (v.grasso@ibimet.cnr.it), (2) IBIMET CNR, Italian National Research Council, Florence, Italy, (3) DISIT Lab, Distributed [Systems and internet | Data Intelligence and] Technologies Lab, Dep. of Information Engineering (DINFO), University of Florence, Italy

During emergencies, an increasing number of messages are shared through social media platforms, becoming a primary source of information for lay people and emergency managers. Weather services and institutions have started to employ social media to deliver weather warnings even if sometimes this communication lacks in strategy. In Twitter, for example, hashtagging is very important to associate messages with certain topics; in recent years, codified hashtagging is emerging as a practical way to coordinate Twitter conversations during emergencies and quickly retrieve relevant information.

In 2014, a syntax for codified hashtags for weather warning was proposed in Italy: a list of 20 hashtags, realized by combining #allertameteo (weather warning)+XXX, where final letters code the regional identification; the regional reference is due to the organization of the Italian civil protection system based on the Regions. Widespread of codified hashtags has only been based on users' commitment, institutions or citizens, to improve communication during disasters. In Tuscany, Consorzio LaMMA, the regional public weather service, firstly adopted the hashtag on January 2014, publishing a Social Media Policy and promoting its use when warnings are issued. In certain regions the codified hashtagging approach has been employed firstly by citizens, in other context it's not yet used at all.

This contribution presents a monitoring of Twitter usage of weather warning codified hashtags in Italy (since July 2015) and an analysis of different contexts. Twitter messages were retrieved using TwitterVigilance, a multi-users platform to crawl Twitter data, collect and store messages and perform quantitative analytics, about users, hashtags, tweets/retweets volumes, and qualitative analysis through Natural Language Processing features. The collected codified hashtags dataset is presented and discussed with main analytics and evaluations of regional contexts where it was successfully employed.

Examples of some cases of severe weather events are also presented.