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Geoscientists' voice in the media: framing Earth science in the aftermath of Emilia 2012 and Amatrice 2016 seismic crises

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Abstract

In the aftermath of an earthquake, broadcast and traditional media play a crucial role, fulfilling complex social and psychological functions. Geo-scientists are sought by the media to provide scientific assessments of seismic phenomena as to explain both what is happened and what is yet to come, also suggesting ways to mitigate risk at individual and societal level.

The visibility of scientist and their ability to spread their voice across the media is a very important aspect of disaster narratives, as it provides an opportunity to disseminate and receive relevant messages about hazard, risk mitigation and resilience. The genuine appetite for scientific knowledge (Wein et al., 2010) stresses the role of journalistic mediation along the whole risk / science communication process, as it improves newsmedia credibility along with public's understanding of both seismic phenomena and related risks.

The here presented research considered the media coverage of scientific issues during the Emilia 2012 and Amatrice 2016 seismic crisis by the four most circulating Italian national newspapers within the 31 days following the first earthquake shock. The comparative analysis of the two seismic crises considered 288 news stories, being analysed through content analysis, an empirical methodology that allows analysing media messages as well as other types of communicative texts, in order to formulate statistical inferences on their explicit meaning (Neuendorf, 2002).

The analysis made emerge two relevant points. First, media coverage of geo-science follows the 'typical' life cycle of news. Most of the articles are indeed concentrated in the very first days, rapidly decreasing in the following days till to disappear at the end of the month. Second, the daily amount of news story is significantly defined by three variables: the maximum magnitude of aftershocks in the previous day, the number of days after the 'zero event' and the degree of controversy / conflict that arises from scientific evaluation of the ongoing phenomena.

Keywords: Media; Earthquakes; Science Communication; Geoscientists; news framing, agenda building.

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