

LastQuake: an app for massive real time crowdsourcing and seismic risk reduction

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LastQuake is a Twitter quakebot and a smartphone app offering very rapid information about felt global earthquakes. The app alone has attracted to date 130 000 users.

Thanks to rapid detection of felt earthquakes based on EMSC website traffic analysis (flashsourcing) and Twitter Earthquake Detection, felt earthquakes are generally detected in less than 2 min.

These initial and automatic detections prove extremely efficient to engage with eyewitnesses and rapidly initiate crowdsourcing of testimonies, comments and geo-located pics. For example, on April 10, 2016, 400 testimonies were collected through the LastQuake app alone within 10 minutes of the M6.6 event in Hindu Kush. Over the last 12-months period, 15 000 testimonies were collected within 10 minutes of global felt earthquakes.

This real time engagement with earthquake eyewitnesses opens the possibility to deliver them with geo-targeted and timely safety guidelines. In practice we are currently working in the implementation of visual pop-ups to present simple do's and don'ts to limit inappropriate behaviors after violent ground shaking, such as to stay away from buildings or to only call emergency numbers in case of injuries. If this will not prevent any building collapse, delivering this information may limit possible fatal errors, ease the rescue operations and limit the public anxiety linked to the lack of information.

The aim of this talk is to present the LastQuake tools and their performances and discuss their future evolutions to better serve the public needs after a felt earthquake and optimize crowdsourcing for improving raoid situation awareness.