

The Rise of the Crowd: An Assessment of Crowdsourced Data during Disasters

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Crowdsourcing is not new, but the scale of environmental monitoring activities is unprecedented due to technological advancements. Innovative technological applications enable the crowdsourcing of massive datasets in short periods of time under difficult disaster conditions. Crowdsourcing methods can prove useful during disasters when the content is confirmed to be of good quality and there is access to streaming sources in real-time. Crowdsourced data from established projects are proven to quantitatively align with environmental measurements from traditional collections and provide timelier information during disaster. Data from individuals may be used in aggregation for decision-making by the public, humanitarian organizations, and government institutions during disasters. However, there is no guarantee that these projects will be active during disasters or provide data where and when information is most needed to improve situational awareness. In addition, it is potentially problematic if vulnerable populations are unaware of this resource or unable to contribute. Crowdsourced data are already used in formal scientific studies, yet further assessment of the availability and usefulness of the data are needed within disaster contexts. Crowdsourced data can provide beneficial content for decision-making when used alongside traditional datasets with an awareness of constraints given data collection and an evaluation of limitations.

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