

2019

Artificial Intelligence in Disaster Risk Communication: A Systematic Literature Review

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Publication Details

Ogie, R. Ighodaro., Castilla Rho, J. & Clarke, R. J. (2019). Artificial Intelligence in Disaster Risk Communication: A Systematic Literature Review. 2018 5th International Conference on Information and Communication Technologies for Disaster Management, ICT-DM 2018 (pp. 1-8). United States: IEEE.

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Abstract

Effective communication of disaster risks is crucial to provoking appropriate responses from citizens and emergency operators. With recent advancement in Artificial Intelligence (AI), several researchers have begun exploring machine learning techniques in improving disaster risk communication. This paper adopts a systematic literature approach to report on the various research activities involving the application of AI in disaster risk communication. The study found that research activities focus on two broad areas: (1) prediction and monitoring for early warning, and (2) information extraction and classification for situational awareness. These broad areas are discussed, including background information to help establish future applications of AI in disaster risk communication. The paper concludes with recommendations of several ways in which AI applications can have a broader role in disaster risk communication.

Disciplines

Engineering | Physical Sciences and Mathematics

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