

Learning Grammars for Detection of Disaster-Related Micro Events

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Abstract : Natural disasters cause tens of thousands of victims and massive material damages. We refer to all those events caused by natural disasters, such as damage on people, infrastructure, vehicles, services and resource supply, as micro events. This paper addresses the problem of micro - event detection in online media sources. We present a natural language grammar learning algorithm and apply it to online news. The algorithm in question is based on distributional clustering and detection of word collocations. We also explore the extraction of micro-events from social media and describe a Twitter mining robot, who uses combinations of keywords to detect tweets which talk about effects of disasters.

Keywords : online news, natural language processing, machine learning, event extraction, crisis computing, disaster effects, Twitter

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