Motivate the problem well

**Introduction**

Disasters are unforeseen, calamitous event that have caused great damage and losses in term of goods and lives since the dawn of our existence. Societies have always attempted to limit the impact of such calamities by developing measures to address the initial impact and handle their consequences.

Our project focuses on this last purpose. We believe that by collecting and analyzing information about a certain disaster event, it would be easier to better understand the needs of the affected community and consequently plan the next actions to be taken in order to increase safety and limit additional damages.

Thanks to the advent of information technology, social networks can be a relevant resource to find this kind of information, as they have become the first source of *knowledge* when dealing with not ordinary events.

However, the amount of data they provide is huge and contains a lot of irrelevant messages. Follows that retrieving useful data from *them may result in* finding a needle in haystack.

Our approach proposes to *overcome these shortcomings* through Information Retrieval techniques, generating a set of words recurrent in Actionable tweets, expanding them and scoring them according to some relevance criteria that take into account also word frequency (tf-idf) in relevant and irrelevant tweets.

Information re

* Also define actionability?

**RELATED WORK**

To understand better the concept of actionable tween we refer to the work done by (Derczynki et al. 2017 “Helping Crisis Responders Find the Informative Needle in the Tweet Haystack”) defining it as an “Informative message that would be helpful to the authorities or the general public with saving lives or assisting the other response teams in dealing better with the incident”.

Our research to detect actionable information from disaster data was also reported by (Munro 2011 “Subword and spatiotemporal models for identifying actionable information in Haitian Kreyol” )

**DATASET**

Our analysis is focused on Twitter

nowadays everyone has easy access on this information.

Related work

Dataset

Method

Results

Conclusion

Background and motivation

Nowadays social networks are one of the first sources of information when dealing with crises as users rely on them even in the most critical phases of a calamity. We believe that this is one of the best ways to help people using information retrieval. Furthermore, the topic has clearly potential that is yet to be explored

* Try to apply known algorithms and techniques to ensure people safety in case of disaster events
* Try to channel the flow of important information in order to speed up the authorities’ involvement

Dataset

* Analysis is focused on Twitter
* The dataset will be generated with focus on emotions like fear, anxiety, apprehension, sadness.

Approach

* Build the dataset with fine grained emotion detection
* Analyze it to retrieve tweets that could bring to possible actions, such as medical or psychological support.