



Robust NLP for Emerging Crises

Motivation

Crisis events, including hurricanes, earthquakes, and pandemics such as COVID-19, yield massive amounts of data. In order to leverage this data to support relief efforts, provide analysis and mitigate harm, we need fast and robust tools.

Critically, we need to be able to quickly adapt models trained on previous events to new emerging crises.



Task Description

- Implement multi-task learning across a variety of crisis events. [1, 2]
- Improve classification methods with a focus on domain adaptation: how can we best apply what we've learned from previous events to new events?
- Go beyond benchmarks: what is necessary during a crisis, and what can NLP contribute?
 - Develop novel methodology to match requirements of this novel task, incorporating time, location, and other components.

References

- [1] J.R. Chowdhury, C. Caragea, D. Caragea. Cross-Lingual Disaster-related Multi-Label Tweet Classification with Manifold Mixup. ACL Student Research Workshop. 2020.
- [2] H. Zahera, I. Elgendy, R. Jalota, M. A. Sherif. Fine-Tuning BERT for Multi-Label Crisis Classification. TREC 2019.

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Analysis

Programming

Literature

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