Interactive Learning for Identifying Relevant Tweets to Support Real-time Situational Awareness

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**Objective:** Enable first responders to quickly identify disaster-related social media information in real-time to facilitate situational awareness and crisis prevention.

**Approach:**
- Interactive learning framework.
- Underlying neural network classifier that learns semantic relevance with word embedding.
- User trains the model and improves its predictions in real-time by providing textual examples of relevant and irrelevant information.

**Design and Implementation:**
- Convolutional Neural Network (CNN) and *Word2Vec* optimized for interactive learning.
- SMART 2.0: A visual analytics application that allows users to interactively explore, identify, and refine relevant data.

**References:**