

Measuring Impact of Rumorous Messages in Social Media

Master in Computer Science

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1 Abstract

As social media continues to grow, the connectivity between individuals and organisations becomes tighter, and the availability of data becomes more immediate, constant and abundant. Aside from conversational chat, people are using social media platforms to share relevant information and to report news. We must become aware of unbased rumours and protect ourselves against false information and its potential consequences if believed. As information credibility becomes an increasing concern, there rises an important question of rumour impact. This work is concerned with the study of rumour impact on social media itself.

Information spread on social media has a high potential for impact, due to the real-time nature of these media. News organisations are losing their audiences to lies and unverified stories, costing them both money and reputation. Misinformation can also endanger life if adopted by individuals during times of crisis.

This work measures the impact of a given rumour, impact that will be determined by analysing user engagement measures. Analysis is then conducted in an attempt to understand why some rumours make more impact than others. There are two main categories investigated - *message-based feature analysis* and *author-based feature analysis*.

By measuring and analysing impact, this work strives to understand the dispersal potential of rumours. Questions are posed regarding the higher impact of some rumours compared to others, and message- and author-based features are investigated in a bid to answer such questions. This will indicate just how penetrable a given rumour could be, how many people could potentially be reached, how fast this dispersal can happen, and how composition features can influence success, highlighting the power of social media in the life of a rumour. This lends towards a useful tool for news agencies, social media networks, governments etc, in flagging potentially impactful rumours.