Social Media Data Mining: A Social Network Analysis Of Tweets Social Media Data Mining: A Social Network Analysis Of Tweets During The 2010-2011 Australian Floods

The paper studies tweets during the Australian floods (2010–2011) to understand online communities and their role in disaster communication.

* **Relation to data mining**
  + It uses **social network analysis (SNA)** and **data mining of tweets** (hashtags, user interactions, links) to identify patterns, influential users, and resources.
* **Benefits**
  + Helps recognize key actors (e.g., Queensland Police, politicians, volunteers).
  + Improves information dissemination during emergencies.
  + Suggests adoption of Twitter by authorities to counter misinformation and enhance crisis management.
* **Methods**
  + Tweets collected via hashtags (#qldfloods, #nswfloods, #vicfloods).
  + Networks built between users and resources.
  + Centrality measures (degree, betweenness, closeness, eigenvector) used to rank influence and importance.
* **Findings**
  + Queensland Police and government leaders were central in spreading reliable information.
  + NSW and Victoria floods had weaker Twitter engagement, mainly volunteers.
  + Important resources shared included donation links, relief services, and updates, though often general in nature.
* **Implications**
  + Shows the **power of data mining in social media** for disaster management.
  + Calls for wider use of Twitter by local/federal authorities during crises.
  + Future work: combine SNA with text mining for richer insights.