Recommendation System Outline In Disaster System
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Goal:

In a specific time period, send government or rescue Institutes the most representative, actionable and urgent twitter messages that can help or save more people. And help people evacuate and get relief from these institutes.

Representative Criterion:
The number of retweet

Actionable Criterion:
Necessary and sufficient condition: (1). Ongoing situation (2) "need something" .

Urgent Criterion:
(1) Retweet numbers
(2) Strong emotion

Explanation of Criterion:

1. retweet numbers: the twitter sentences have been retweet by others which means that most of people think it is important and informative.

2. Ongoing situation: the twitter sentences/ situation are ongoing instead of past.

3. "need something" situation: a twitter sentence that shows peoples' need in the earthquake, including help, water ,food…

4. Emotional twitter: a twitter sentence that has strong emotional expression.

Example of ongoing/past situation.
(1) People needs water and food right now. (ongoing situation)
(2) The helicopter already sent 500 tons of food to disaster areas. (past situation)

Example of people need something
(1) people in the shelter are very hungry and need food, money, water right now (need something).

Explain of strong emotion:

(1) People are dying. Please help!!!(strong emotion).
(2) lots of people died in this disaster(common emotion)

Specific Situation actionable and urgent Twitter Messages

Purposes/goals:

1. **Infrastructure and Utilities related:**
help or save the people who are trapped in these building.

2. **Food and water related**:
Donate and distribute the food and water to save these refugees who are hungry and thirst

3. **Search and Rescue related**:
Rescue people who are trapped or missing in some geo-location in disasters .

4.**Evacuation related**:
give people guidance how to evacuate ASAP and wisely given the road/weather condition.

Details:

Infrastructure and Utilities:
Key word: Buildings, Collapsed, Trapped, search, rescue, survivor, live.

(1)situation one:
Building collapsed, people are trapped in building.

Example:
"RT @someone Amatrice earthquake: 10 dead as buildings collapse after 6.2 magnitude quake ,but some are trapped in this building".

(2) situation two:
Building collapsed, and need to fix.
Example:
"Nepal Kathmandu most famous tower collapsed, and people wants to fix it as soon as possible".

Food:
Key word: Survivors, hungry, need, dying, food(foods).

(1) Situation one:
Disaster happens, and people need food.

Example:
"RT @GlobalGiving: Survivors of the 6.2M #ItalyEarthquake need emergency supplies like food, water, and medicine ‚Äî donate today https://t.co‚Ä¶"

Water:
Key word: Survivors, thirsty, need, dying, water.

(1) Situation one:
Disaster happens, people need food.

Example:
"RT @GlobalGiving: Survivors of the 6.2M #ItalyEarthquake need emergency supplies like food, water, and medicine ‚Äî donate today https://t.co‚Ä¶".

Search and Rescue:
Key word: Trapped, Rescue, Survivors, help, geolocation

(1) Situation one:
Disaster happens, people are trapped in some location/buildings.

Example:
"RT @PerezHilton: Italy hit with 6.2 earthquake leaving dozens dead and more trapped under rubble! https://t.co/nPmVkloxQN https://t.co/8VE6‚Ä¶"

Evacuation:
Key word: Evacuation, shelter , run, geolocation, road block.

(1) Situation one:
Disaster happens, people should evacuate from some geolocation to another geo-location.

Example:
"In Nepal Earthquake, lots of roads are blocked, Including XX main street, please go from other roads".