

The logo consists of a bright green square containing the text 'DSSG' in white, bold, uppercase letters on the top line, and 'SOLVE' in white, bold, uppercase letters on the bottom line. The letters are spaced out and have a slightly distressed or hand-drawn appearance.

**DSSG
SOLVE**

Solve for Good

Data Fest 2020

Cyclone Amphan

Analyzing Experiences of Extreme Weather
Events using Social Media Discourse

Meet our **team**



**Ancil
Crayton**

Project Manager



**Jared
Ross**

Data Scientist



**João
Fonseca**

Data Scientist



**Kanav
Mehra**

Data Scientist



**Marcelo
Sandoval-Castañeda**

Data Scientist

Meet our **partner**



And meet our project's **champions**:



Michelle Ng

Digital Innovations Analyst



Rachel von Gnechten

Research Analyst

What are we doing?



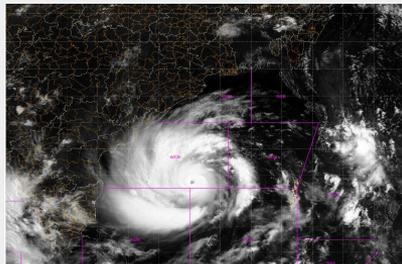
Identify and better understand the **experience and needs** of **vulnerable communities** affected by **natural disasters** using social media data

Amphan **timeline**

May 18

IMD issues warning

Around 7 lakh people evacuated in Bengal and Odisha



May 20

Landfall

Moving with a speed of 220 km/h
First super cyclone since 1999



May 21

Damage / Impact

106 lives lost. \$13.2 billion in damage.
300K hectares of agricultural land impacted.



May 22

Relief Measures

41 NDRF teams deployed. Centre announces relief package worth \$200 million.



Which **questions** are we looking to **address**?

Identifying unmet needs



Finding **actionable** or **needs-based** information



Affected people
Requesting help
Offering help

Comparing narratives



What were the different narratives?



Who shaped the **dominant** narrative?

Who was **marginalized**?

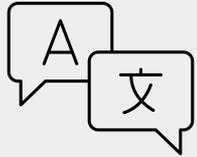
How are we doing this?



~ 470k Tweets



Get sentiment

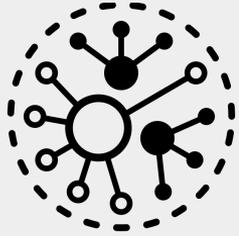


Text translation



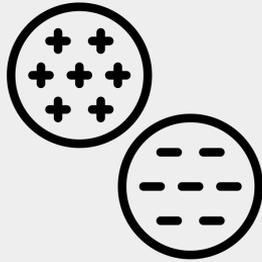
Load data

How are we analysing it?



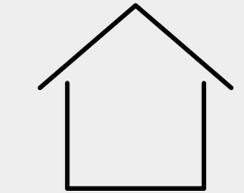
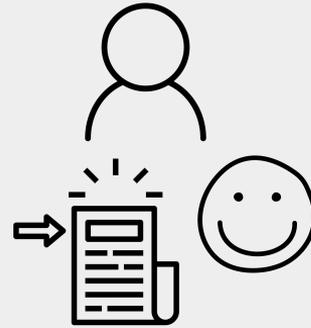
Build the
Network

Find user
communities



Extract
community
locations

Combine
analyses



Find **unmet**
needs!

What have we **found**?



Different user **communities**



25 dominant **topics**

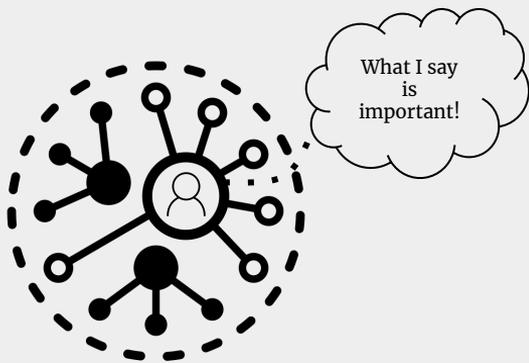


Type of **speech/sentiment/user** correlations



Unmet **needs**

What are the **impacts**?



Discourse represents user **communities**

Influential users exist in each of these communities

We can identify and **prioritize calls for help**

It is possible to **pin down exact locations** of home damage and destruction



Solve for Good - Data Fest 2020



Thank **you!**

Narratives and Needs: Analyzing Experiences of Cyclone
Amphan Using Twitter Discourse

<https://arxiv.org/abs/2009.05560>