

How to Save Lives With Microblogs?

Lessons From the Usage of Weibo for Requests for Medical Assistance During COVID-19

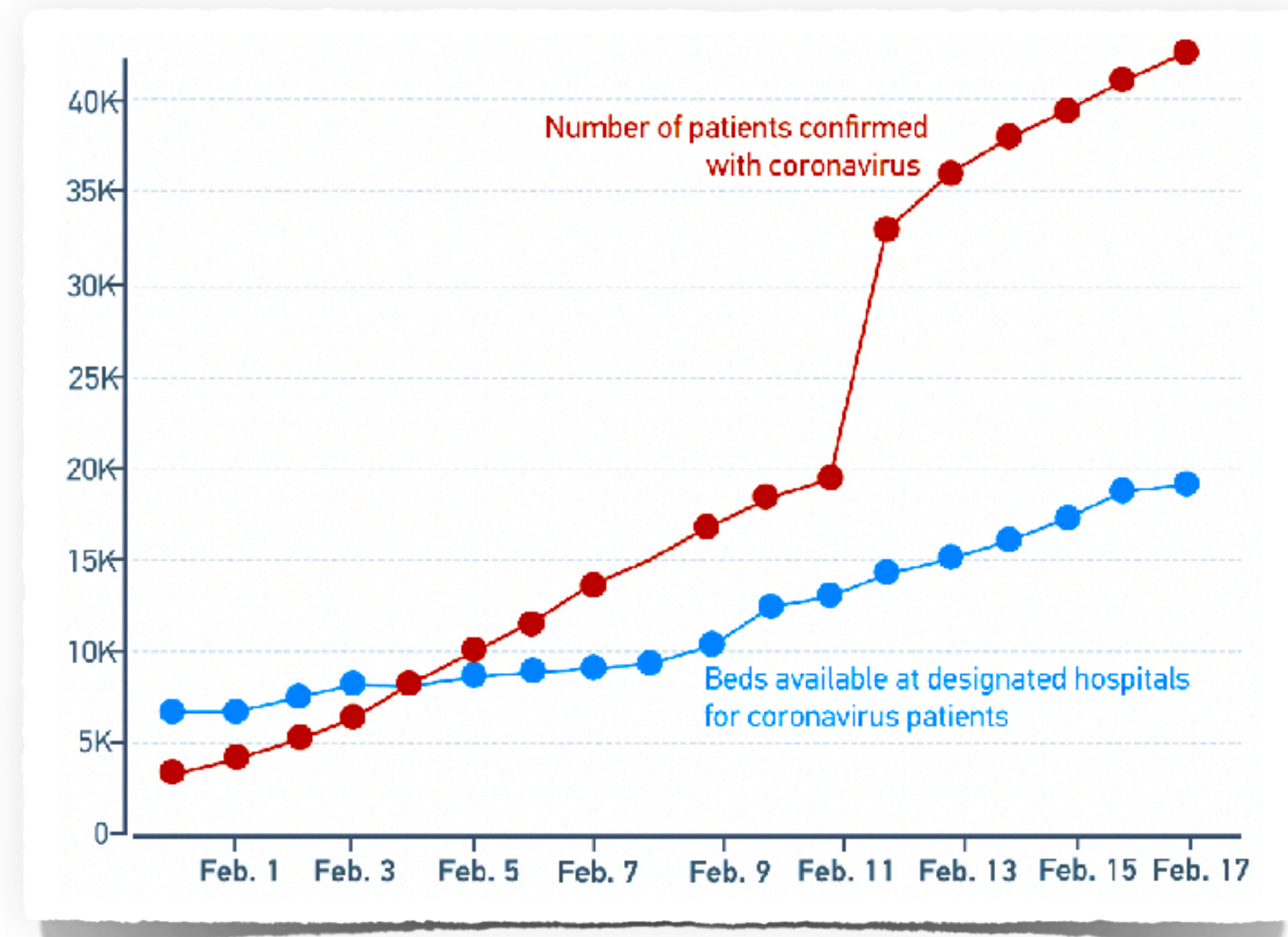
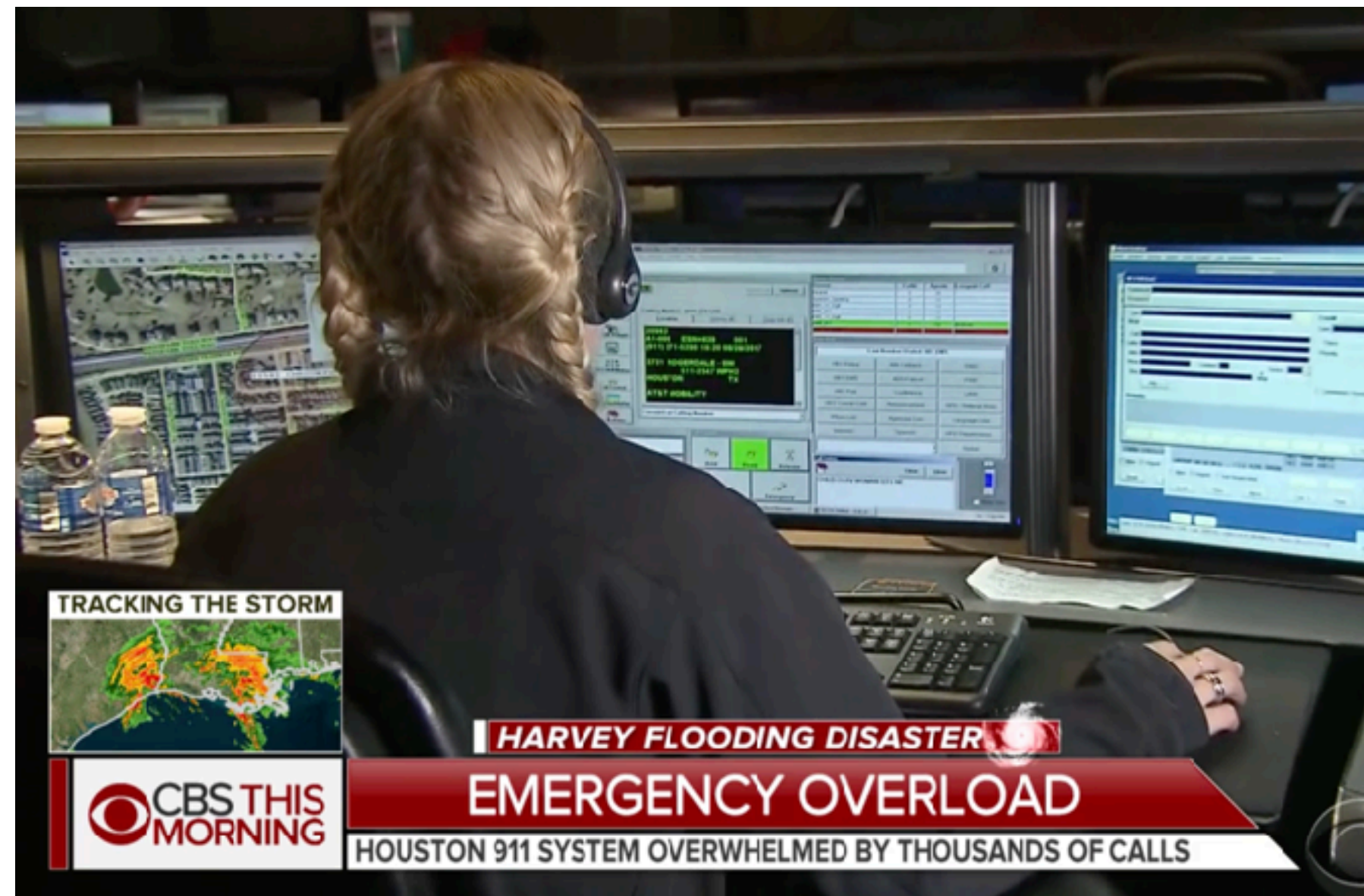
Wenjie Yang, Zhiyang Wu, Nga Yiu Mok, Xiaojuan Ma

This study analyzed 8K posts regarding COVID-19 patients seeking medical assistance on a Chinese microblogging platform to understand the affordance and limitations of microblogging services for help-seeking during crises.



Introduction


In large-scale crises, local emergency services sometimes fail to provide timely and adequate assistance to the affected population due to limited bandwidth and resources.




In this case, some people turn to seek help from social media.

Introduction

Microblogging services provide functions such as posting and hashtags, allowing people to create and spread help requests to a broader audience, and have been widely used in many crises around the world.





Functions:



Help requests in Houston Flood [1]

#houstonflood please help my friend 11711 wood shadow Houston TX 77013 she stuck with 5 kids
7:06 AM - 27 Aug 2017

Water rising quick please help ASAP please!!
820 smith street, port Arthur Texas, 77640
11:41 PM - 29 Aug 2017


 


2015 Chennai Rain [2] 2011 Queensland Flood [3]


Help requests in COVID-19 on Weibo


2020-2-8 20:35 来自 肺炎患者求助超话

肺炎患者求助超话 求助人信息 (若有相关)

【姓名】




【年龄】

【所在城市】 武汉市 

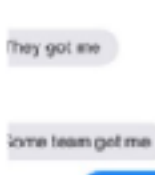

【所在小区、社区】 



"My mom was diagnosed on Jan 30. Doctors say she must take oxygen to stay alive, but she hasn't been hospitalized. Please save us!"

Successful cases

 **DaytonaBeachFireDept** 
@DaytonaBeachFD 

We were able to rescue your friend.

 **IDK, Hanni B | MAY IS EHLERS-DANLOS AWARENESS MONTH ...**
THEY GOT HER!! A RESCUE TEAM CAME AND GOT KRISTINA OUT, THANK GOD. THANK YOU ALL WHO HELPED ALERT AUTHORITIES. BLESS YOU. 

 **超话小秘书** 

2020-3-14 16:27 来自 肺炎患者求助超话

截止目前，微博平台累计收到上万条求助，排重并核实

"Over 3,000 help requests on Weibo have been reported to the government...."

But, is microblogging an effective tool for help-seeking in an emergency?

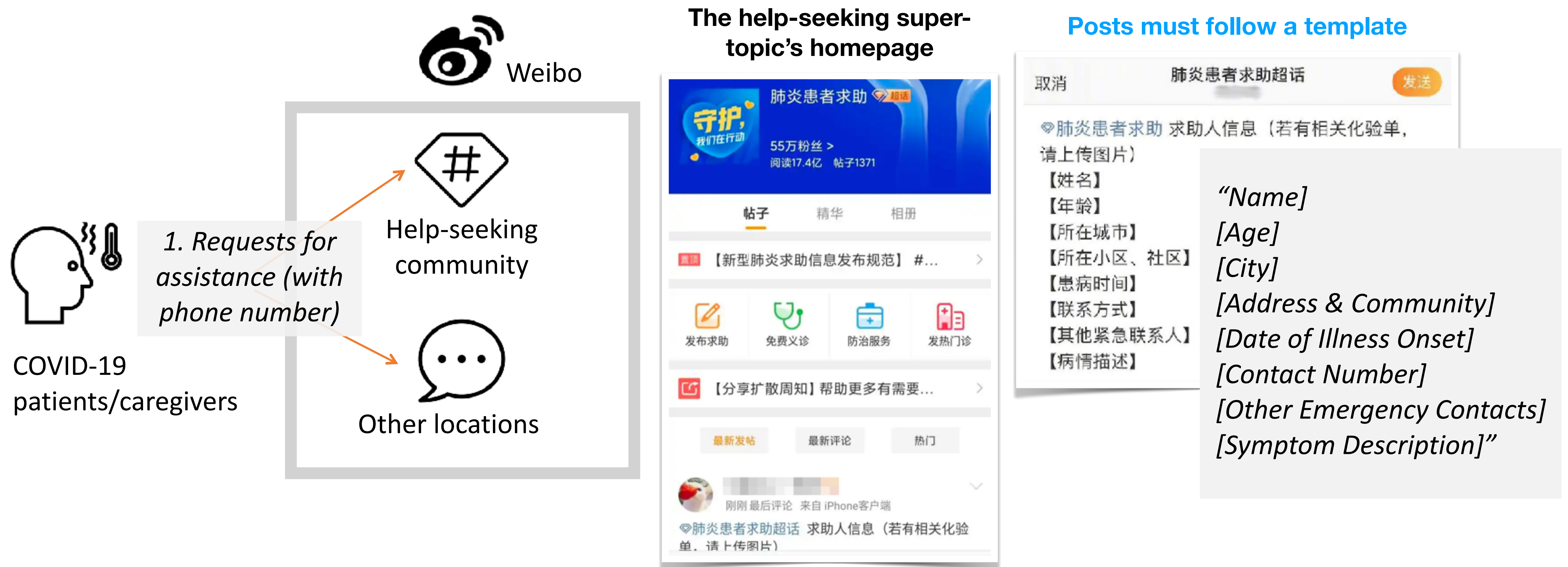
[1] Kabir, M. Y., & Madria, S. (2019)

[2] Nazer, T. H., Morstatter, F., Dani, H., & Liu, H. (2016)

[3] Bruns, A., Burgess, J., Crawford, K., & Shaw, F. (2012)

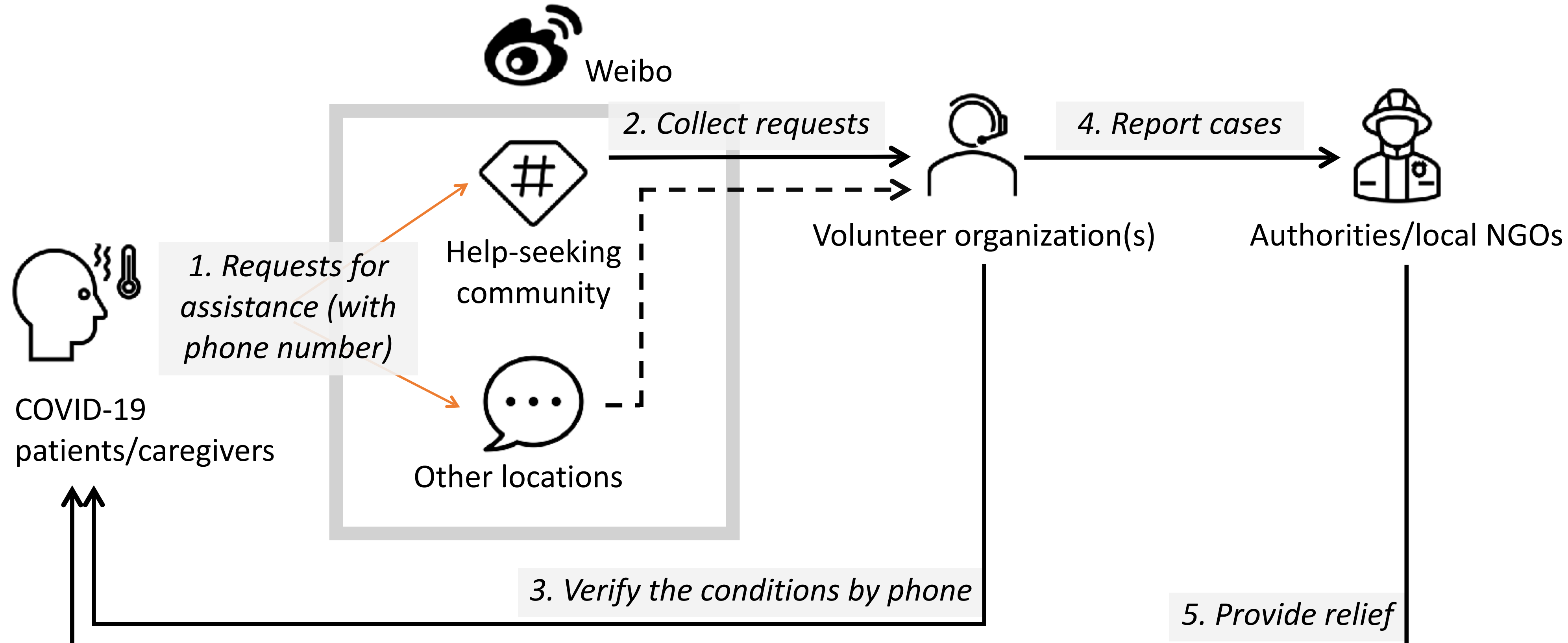
Background

A case study that examines how COVID patients seeking help on Weibo, the community they gathered (*#COVID-19 patient seek help [super-topic]#*, or **the help-seeking super-topic**), and the microblogging functions they used.



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Research Questions

(RQ1) What microblogging functions were used for help-seeking and how effective is it for this purpose?

(RQ2) How did COVID-19 patients use microblogging functions to seek assistance?

Method

Data Collection

Annotated 2K
Weibo posts from
the help-seeking
super-topic and
other locations

Collected from wuhancrisis.com;
2 annotators; Cohen kappa: 0.82

Trained a BERT
classifier

1=help request; 0=other;
98% acc and F1

Classified 100M
Weibo posts
related to
COVID-19

From Jan - May, 2020

Extract 8K help
requests

Data Analysis

Extract 8K help
requests

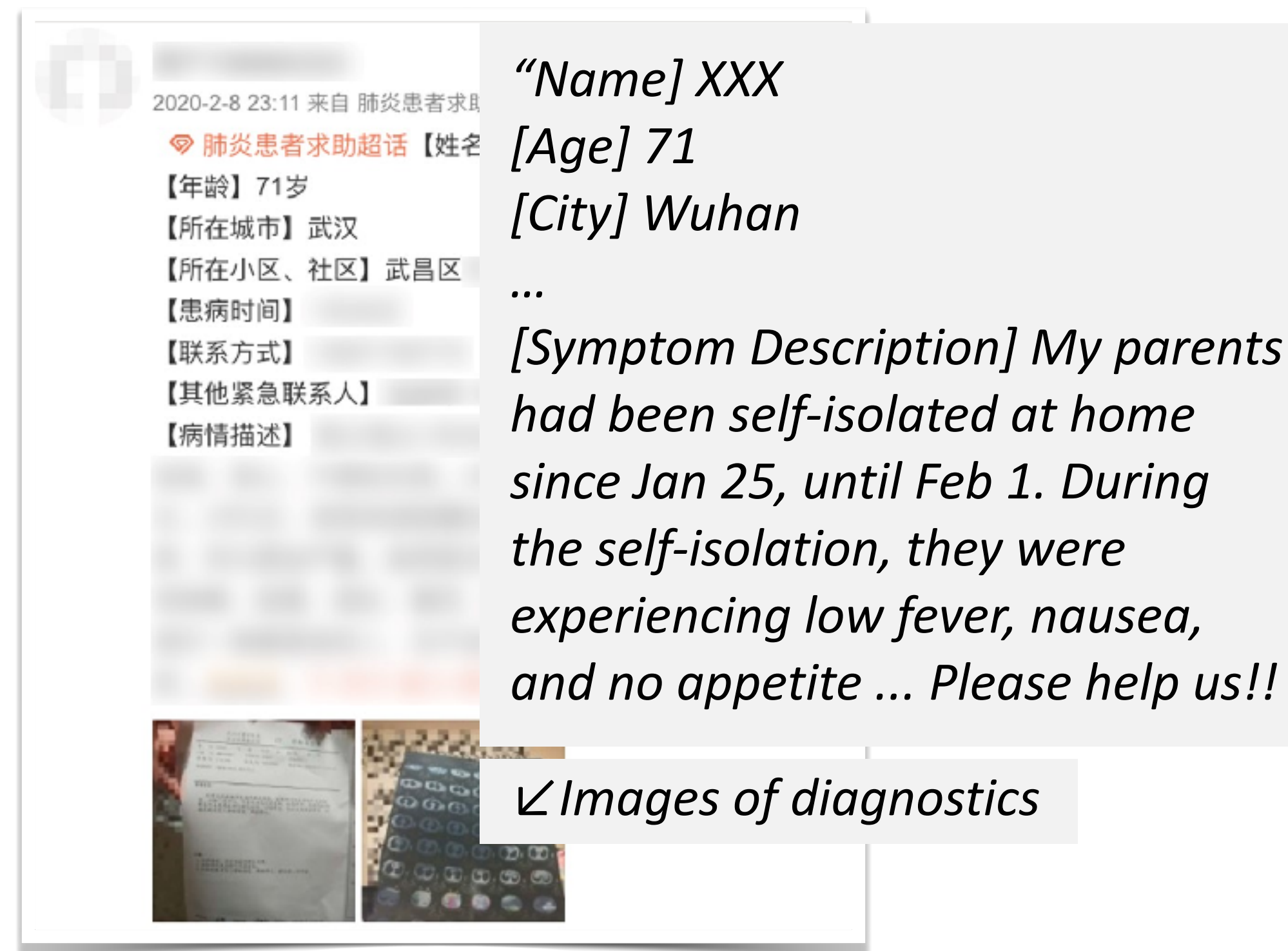
RQ1:
Content
analysis

RQ2:
Trend analysis,
controlled
interrupted time
series analysis
(CITS)

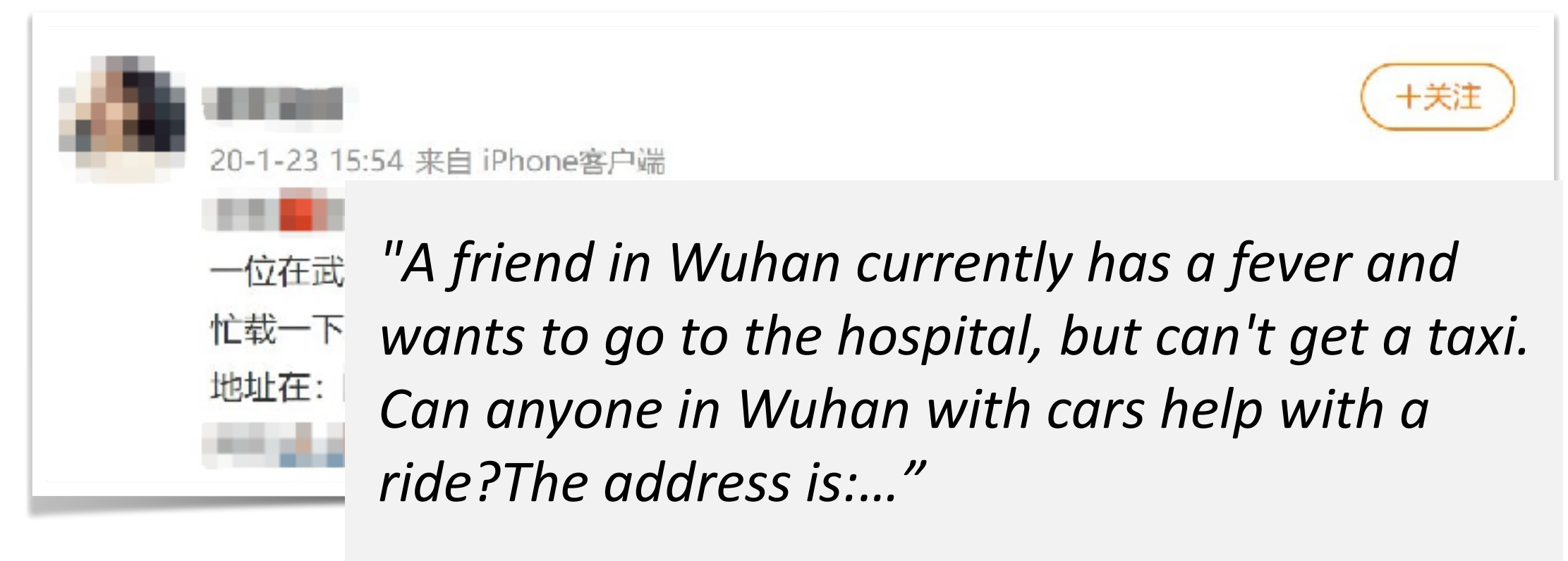
Results (RQ1)

In total, nine microblogging functions were used for help-seeking. Posts to the help-seeking super-topic were easier to identify, gain retweets, and managed by help providers than posts to personal timelines.

Help-seeking super-topic: post on the help-seeking community



Regular posting: create a post in personal timelines



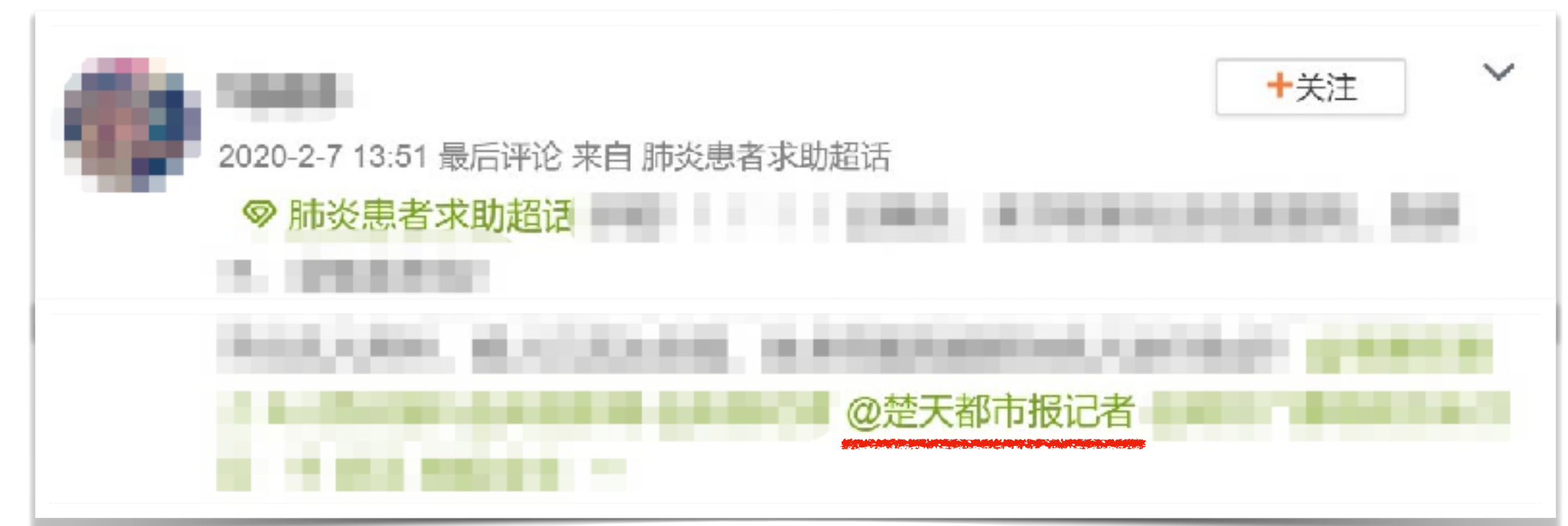
Microblogging functions for help-seeking have four limitations: 1) search, 2) tracking, 3) ease of use, and 4) privacy protection.

Misuse of the help-seeking super-topic



Despite following the template, the request was made on personal timeline instead of the help-seeking super-topic

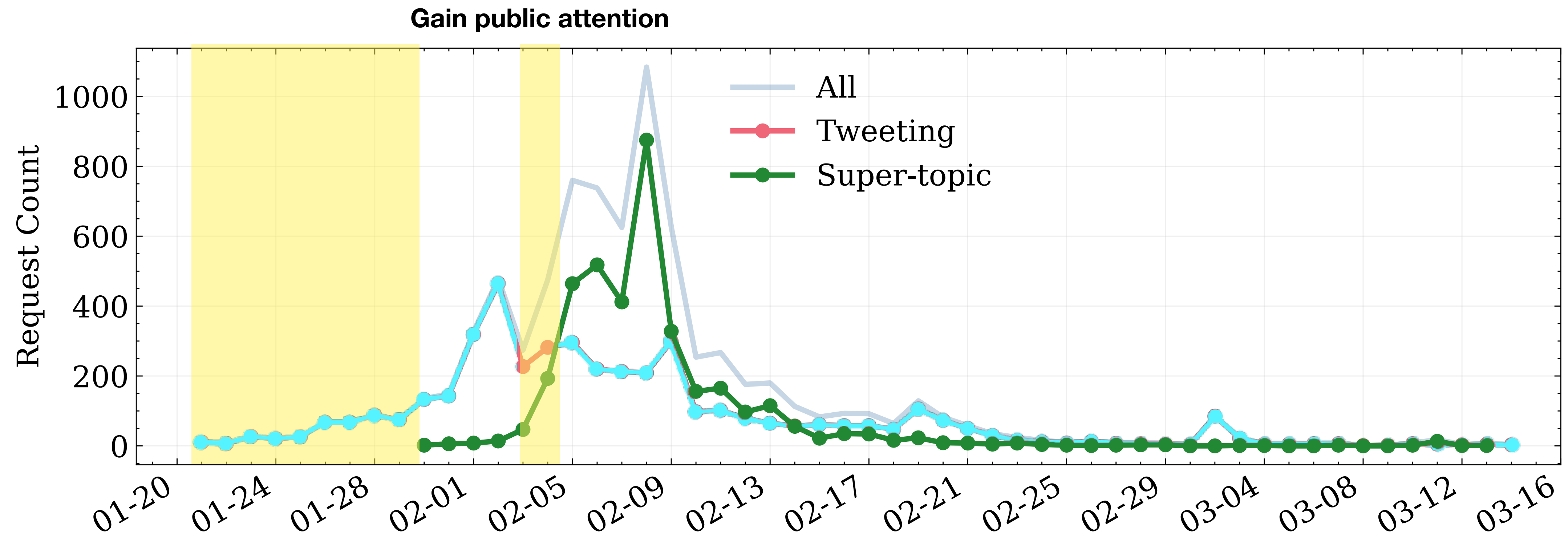
Misuse of the mention function



The user mentioned a non-existing influencer to ask for help

Results (RQ2)

Until the help-seeking super-topic was created and hit the trending list, most requests were made by regular posting, but even after that, people didn't make a significant switch to the super-topic, though it is more effective.



Conclusion & Implication

- A centralized managed channel (i.e., super-topic) can support more effective communication between help-seekers and volunteers than regular microblogging functions (e.g., posting).

But a trade-off need be considered: developing new technologies or improving existing ones?

- Four limitations for existing microblogging services need to be improved in the future

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Thank you!

