

# Public Opinion Mining using Large Language Models on Social Media Data

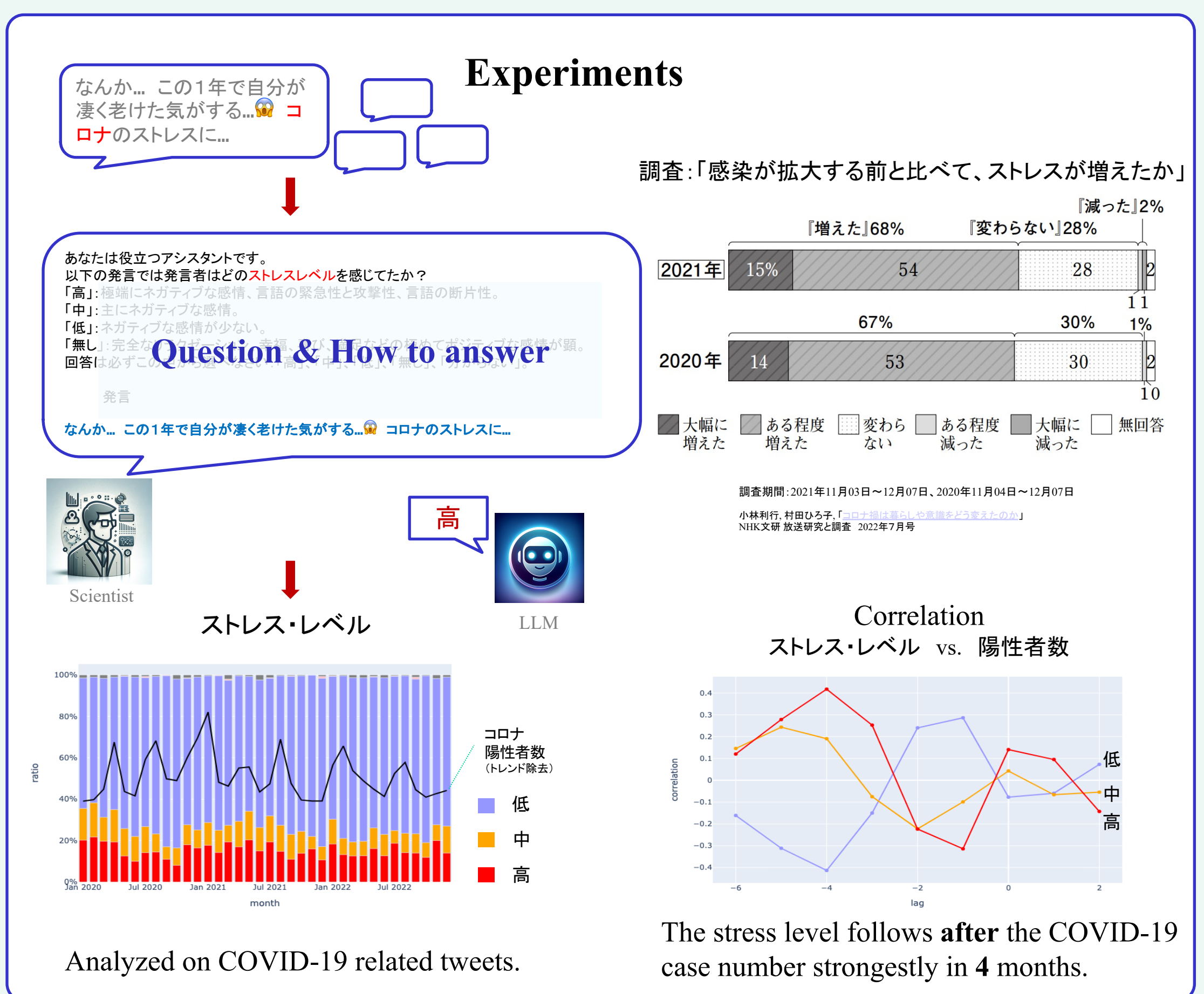
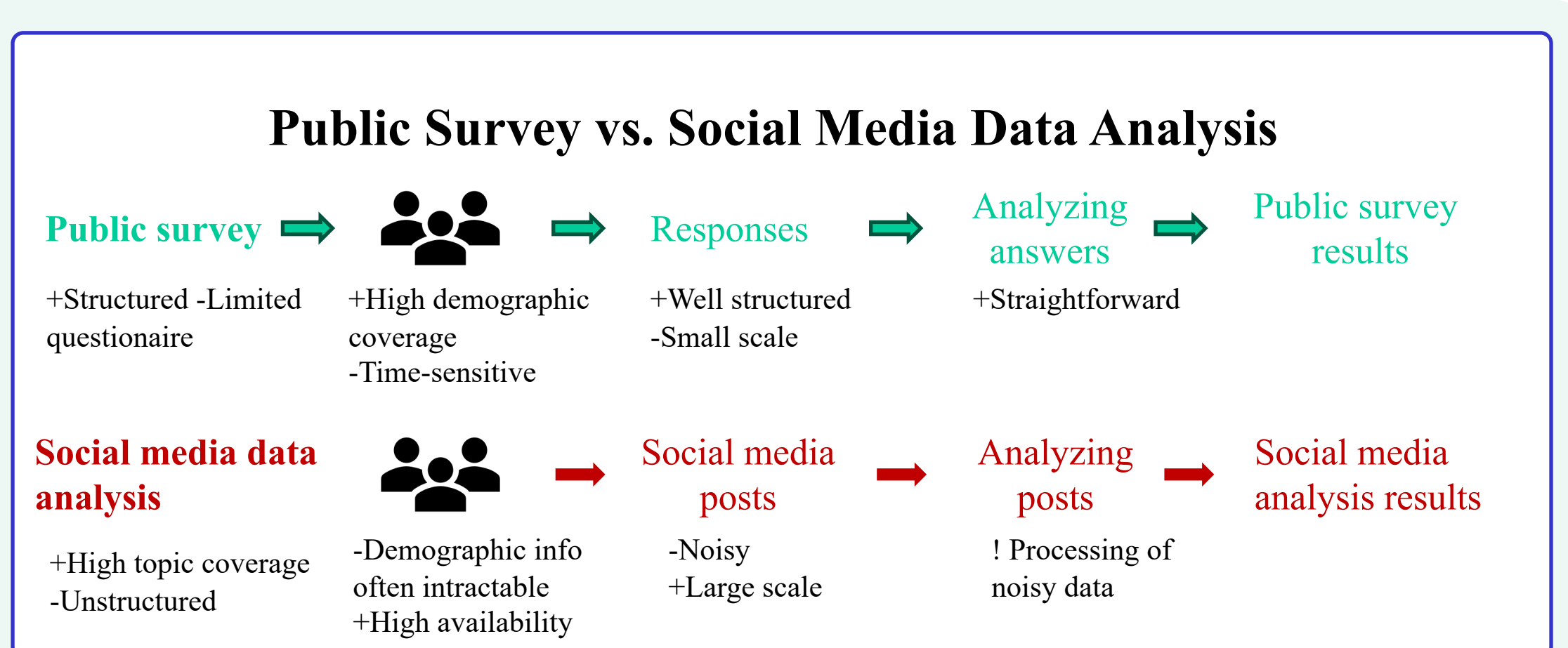
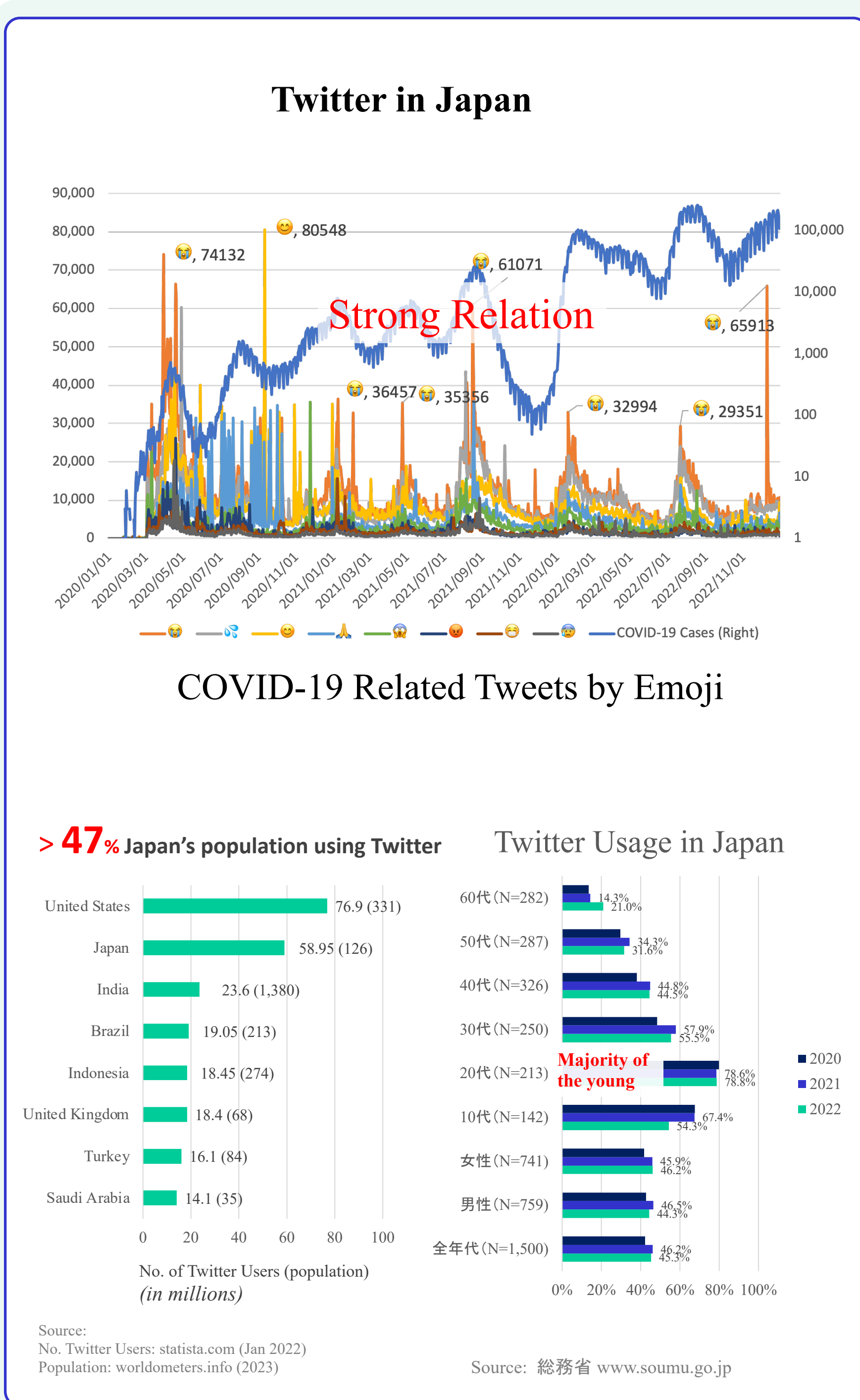
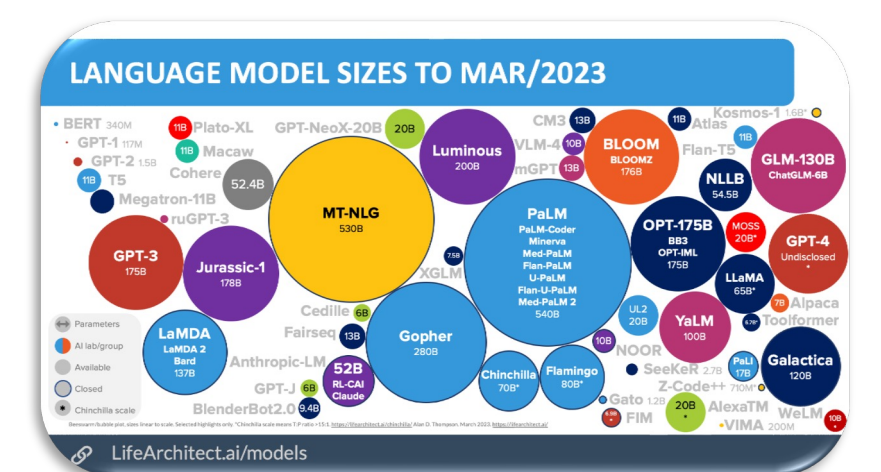
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## Overview

Social media platforms have emerged as a significant source of public opinion, offering a massive user-generated data in which user-opinions are valuable if obtainable. Large language models (LLMs) have been in the spotlight recently with suggestions on the generalization abilities to solve tasks that are not explicitly trained for. Thus, this study explores the potential of utilizing LLMs for opinion mining on social media data by asking LLMs difficult questions, instead of simply asking whether the text's sentiment polarity is either positive, negative, or neutral. This study conducts experiments on topics from available public surveys. The results indicate that it is promising, but also challenging, to utilize LLMs for the tasks.

## Approach

- ❑ Mining opinion on data from Twitter (“X”), the largest public social media platform used in Japan,
- ❑ On topics from available public surveys, for example, stress during the COVID-19 pandemic,
- ❑ Using large language models (LLMs).



## Conclusion & Future Direction

- ✓ Social media reactions have strong relationships with the typical events, for example, the COVID-19 pandemic.
- ✓ Analysis results show promising potential for large scale social media analysis by LLMs on complex questions.
- ! Challenges remain in assessing the performance and reliability of LLMs.