Thank you very much for inviting me to review this interesting article on developing a social media mining framework for coping strategies used during COVID-19. The authors highlighted the limitations of using Sentiment Analysis (SA) in detecting a variety of coping strategies (both positive and negative). They also proposed a new social media mining framework based on the DRIVE model to better understand the individuals' coping mechanisms, especially in times of distress during the pandemic. Overall, the manuscript provides valuable information, but it requires further revisions. Please check the following points.

Abstract

- Abstract is too text-heavy and misses the conclusion section. Please read the author's guidelines more carefully. Additionally, the background section contains the purpose of the study, but it is presented inconsistently and unclearly. The research purpose addressed in the background is not aligned well with the research questions on page 2.

Introduction

- Overall, the manuscript needs to be restructured coherently and concisely. For example, the first paragraph of the introduction is huge and needs to be broken down.
- The sentence on page 2, line 51, "Coping mechanisms can be broadly categorized into positive…." needs to be referenced.
- (page 2, lines 63-64) Does emotion detection refer to Emotion Detection (ED)? Please use the term "Emotion Detection (ED)" technique consistently throughout the manuscript.
- If comparing the effectiveness in detecting positive and negative coping mechanisms between SA and the new framework this study proposed, please define SA briefly in the introduction.

Research questions and contribution

- Having a separate section for research questions is beneficial, but the authors should consider reorganizing the research questions. From my understanding, this study aims 1) to develop the DRIVE-Coping machine learning observatory and 2) to present empirical evidence demonstrating its superiority over SA in detecting coping strategies used in times of stress. This study will also reveal what types of positive and negative coping strategies have been used during the pandemic and which are more frequently used.
- The contribution of this study is not addressed in this section. Please consider deleting the term "contribution" from the subtitle.

Background

- The authors introduced several approaches and frameworks using abbreviated terms, confusing readers outside this field of study. Please clearly indicate the DRIVE model and the Text-based social media mining (TSMM) as a conceptual and methodological approach to your study, respectively.
- Please verify how the DRIVE model is related to individuals coping during stressful situations. In addition to the list of the model concepts and integrated other conceptual frameworks, a full description and explanation of the model are required. As the name stands for, demands and resources are essential to the DRIVE model and the newly developed DRIVE-Coping observatory, but the authors did not define them.
- As the name stands for, demands and resources are essential to the DRIVE model and the newly developed DRIVE-Coping observatory, but the authors did not define them.
- (page 3, lines 117-131) Coping strategies are categorized in various ways across the literature. Before highlighting positive and negative coping strategies as one of the coping strategy categorizations, briefly explain various classification systems of coping strategies.

Related work
- The first subtitle, "DRIVE Model Application for Evaluation of Mental Health Status," is unrelated to the following paragraph. It may be because I do not fully understand the DRIVE model, but the author only related the DRIVE model to coping, even though the DRIVE model contains several concepts, such as demands, resources, subjective perceptions, and individual differences.
- Please proofread your manuscript throughout. (e.g., see page 5, line 214)

Methods

- Please use relevant and concrete theories and references. See page 8, lines 341-347. What is the coping theory? Even references are not included.
- Is it possible to present the demographic information of those who post the tweet? On page 7, line 336, it says that the data includes several features related to the individuals who posted the tweet, such as the following count, followers, and bio description. Younger generations are more likely to use social media compared to older adults. Thus, this finding on the more frequent uses of positive coping strategies cannot represent the overall stress management of the Kuwait population.
-

Results

- Please consider reorganizing the manuscript, especially the result and discussion sections, according to the research questions so that readers can easily and coherently follow your study's significance, development, and findings.
- (page 10, lines 397-406) Please define each coping strategy (e.g., mindfulness practices) other than presenting examples of that strategy (e.g., praying and meditation).

Discussion
- Please explain the practical implications of the DRIVE-Coping machine learning observatory, including preventive measures, plans, and policies for the early stages of mental health problems, as described at the beginning of the manuscript.