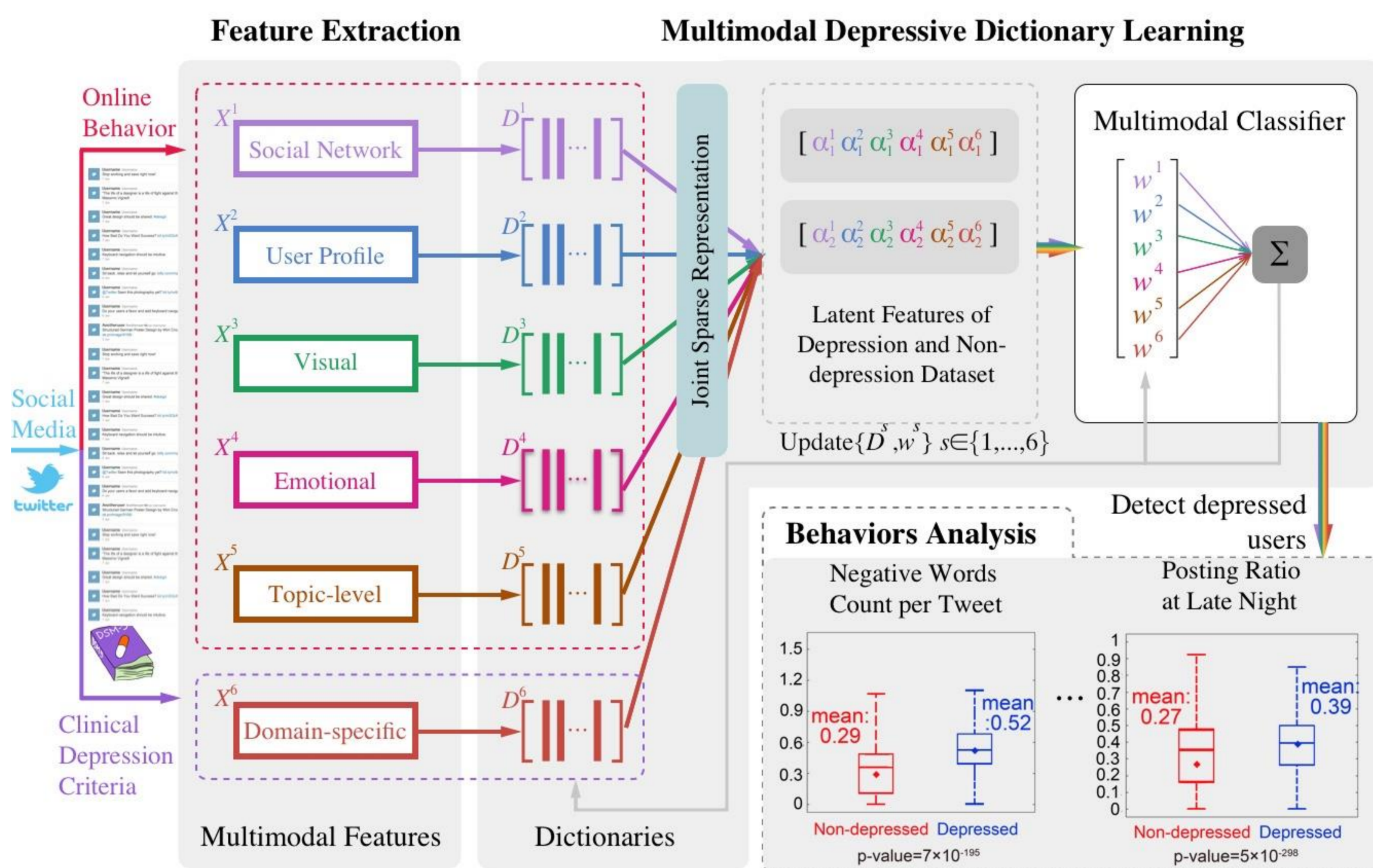


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## ❖ Challenge: Detecting Depression via Harvesting Social Media

1. No public available large-scale benchmark datasets for depression research.
2. Users' behaviors on social media are multi-faceted. It is hard to characterize the users from discriminant perspectives and capture the relation across different modalities.
3. Although users' behaviors are rich and diverse, only a few are symptoms of depression, so the depressive-oriented features are sparse on social media and hard to be captured.

## ❖ Solution: A Multimodal Dictionary Learning Solution



## ❖ Depression Behaviors Discovery

1. Posting time. Depressed users post more tweets between 23:00 and 6:00, indicating that they are susceptible to insomnia.
2. Emotion catharsis. All users say more about their bad moods, but depressed users express more emotions, especially negative emotions.
3. Self-awareness. Depressed users use more first personal pronouns, which may reflect their suppressed monologues and strong senses of self-awareness.
4. Live sharing. Depressed users post more antidepressant and depression symptom words, indicating that they are willing to share what they encountered in the real life.



We have released our datasets, features and resources of our work in <http://depressiondetection.droppages.com/> with more details. QR code on the left is directed to our website of this work. QR code on the right is directed to the IJCAI website of this work.

