



CS 6474 Social Computing: Text Analytics I

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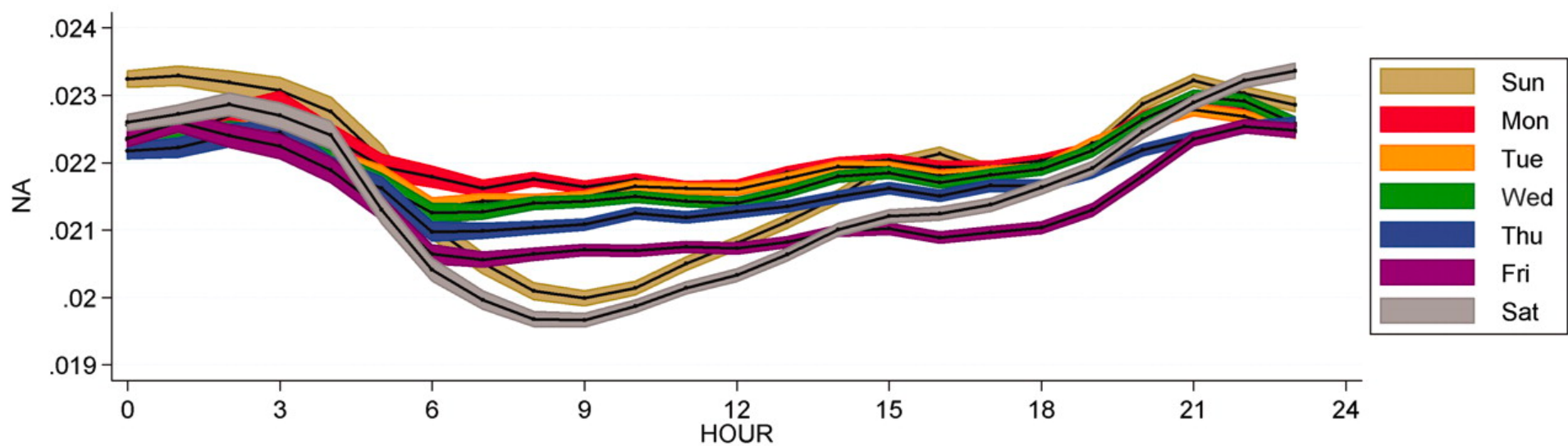
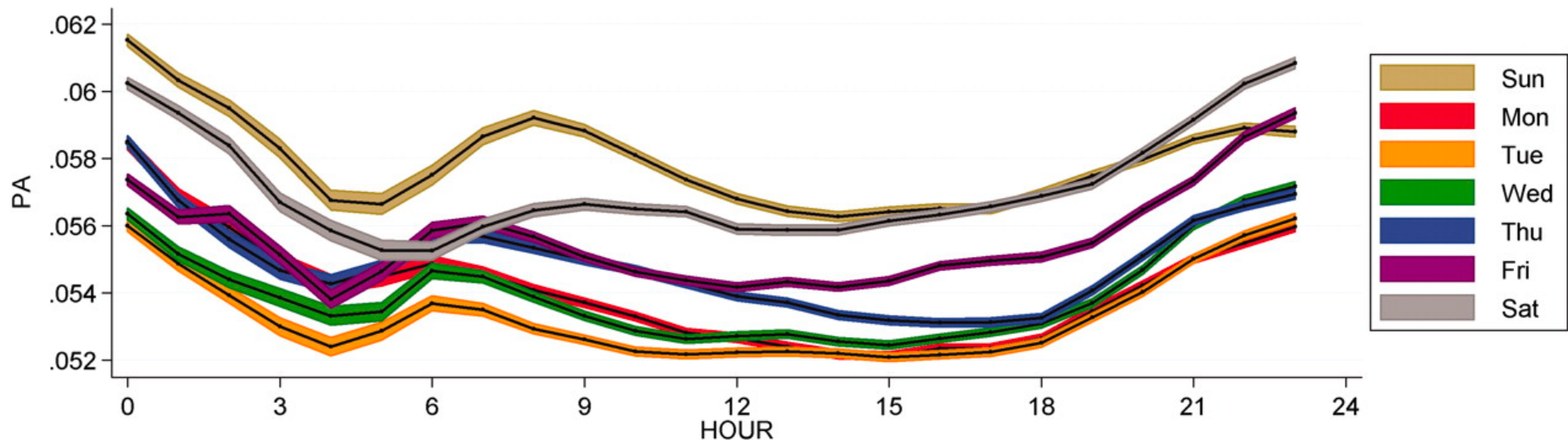
Week 7 | October 5, 2016

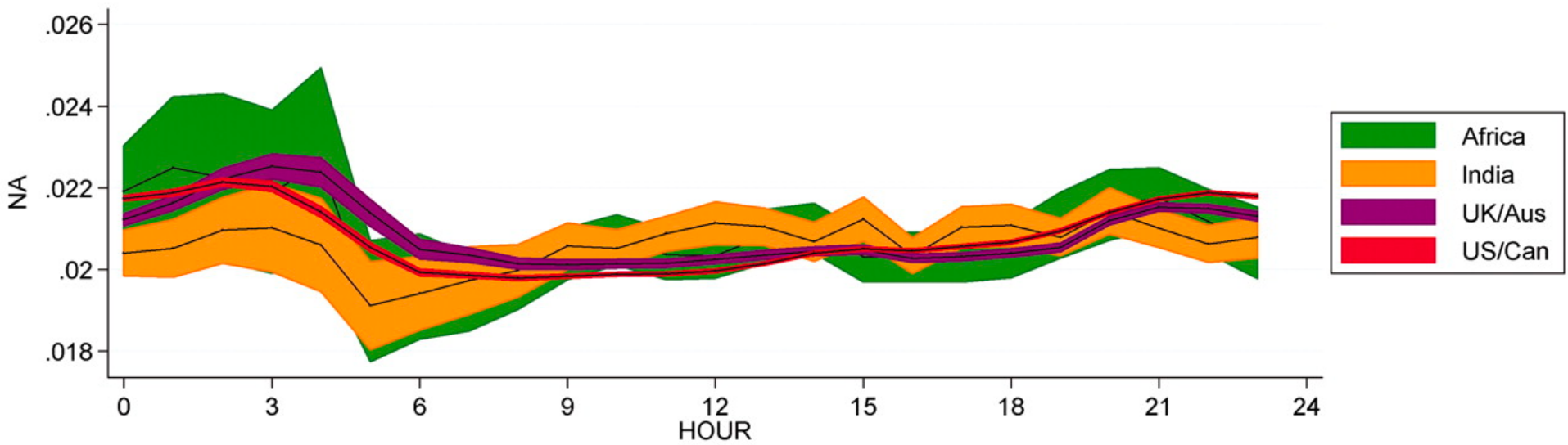
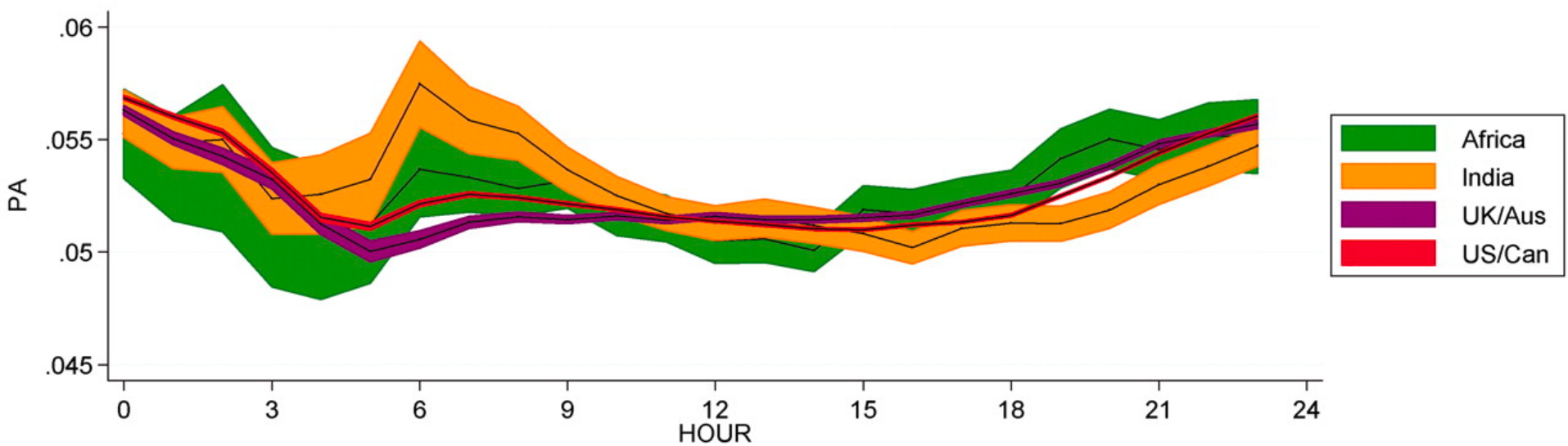


Diurnal and Seasonal Mood
Vary with Work, Sleep, and Day
length Across Diverse Cultures

Summary

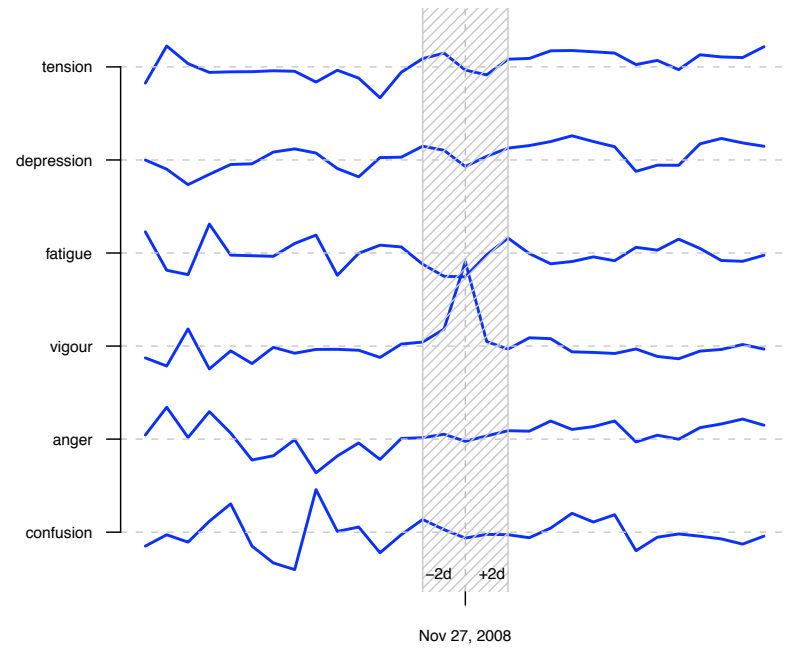
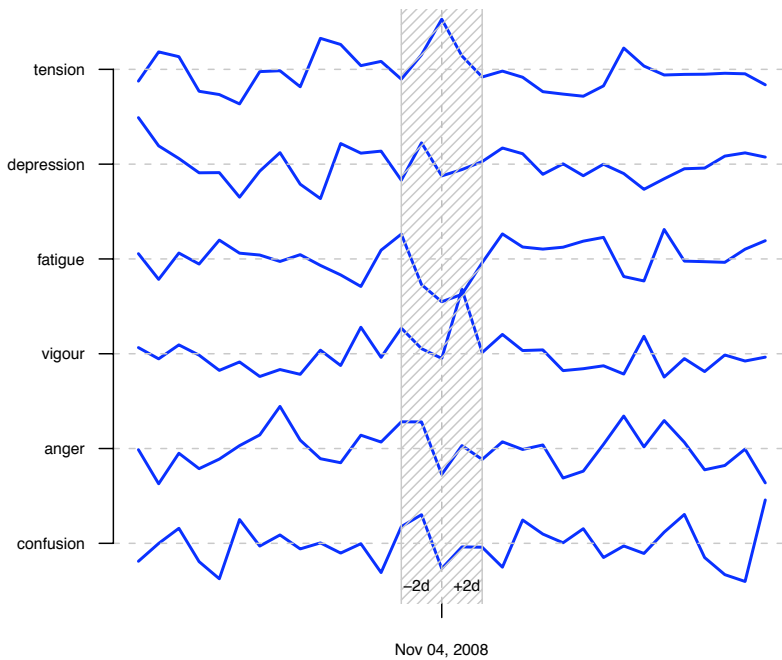
- One of the early works examining relationship between social media mood and behavior and psychological theories.
- The potential of online social media to study individual behavior.
- Identify daily and seasonal mood variations and relate it to work, sleep and daylight.
- Validate circadian rhythms in humans.
 - PA spike in the morning, NA increases as the day progresses
- Measure positive affect and negative affect based on the lexicon LIWC.
- PA and NA are not mirror images of each other.





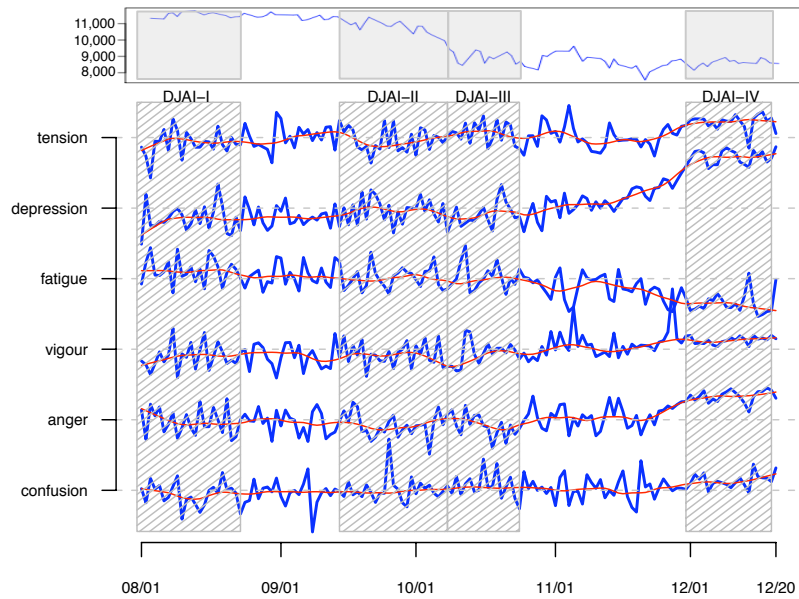
Modeling Public Mood and Emotion: Twitter Sentiment and Socioeconomic Phenomena – (Bollen, Pepe, Mao, 2010)

- Examine how Twitter moods reflect social, political, and economic events
- Use POMS (profile of mood states) for detecting mood-indicative twitter posts.
 - POMS dimensions: tension, depression, anger, vigor, fatigue and confusion
- Investigate how a six vector representation of moods deviates during different big scope events.
- High stress/tension during elections; excitement/vigor during thanksgiving.



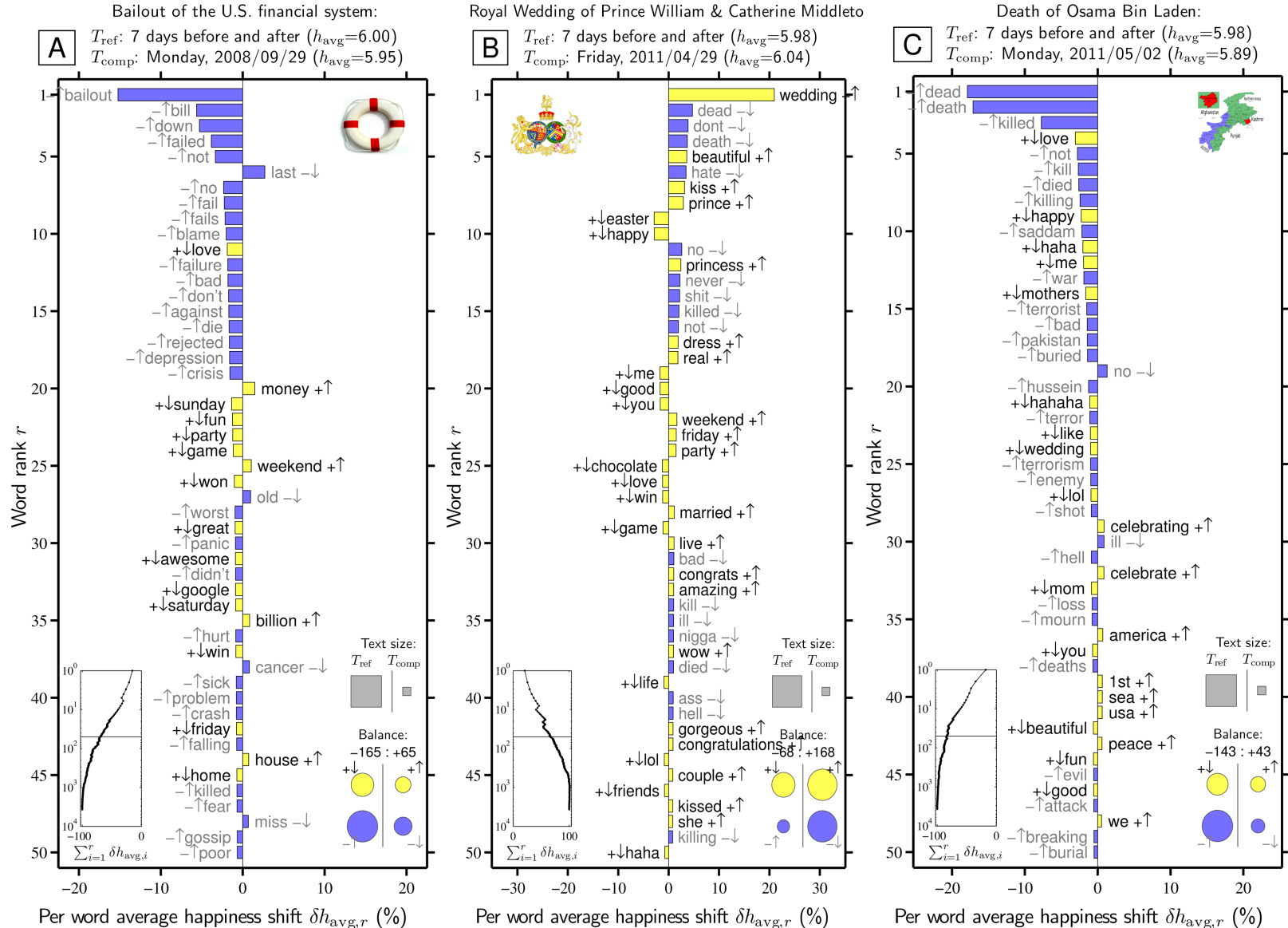
2008 Presidential elections

Thanksgiving



Temporal Patterns of Happiness and Information in a Global Social Network: Hedonometrics and Twitter

Peter Sheridan Dodds, Kameron Decker Harris, Isabel M. Kloumann, Catherine A. Bliss, Christopher M. Danforth



astonishment
eagerness
curiosity

inspiration
desire
love

irritation
disgust
alarm

activated

disappointment
contempt
jealousy

unpleasant

pleasant

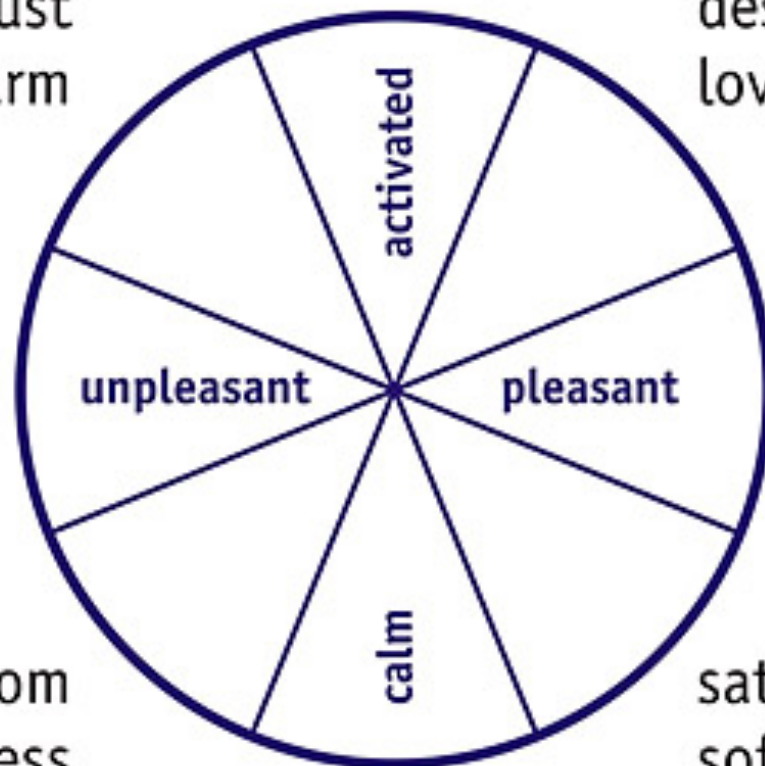
fascination
admiration
joyfulness

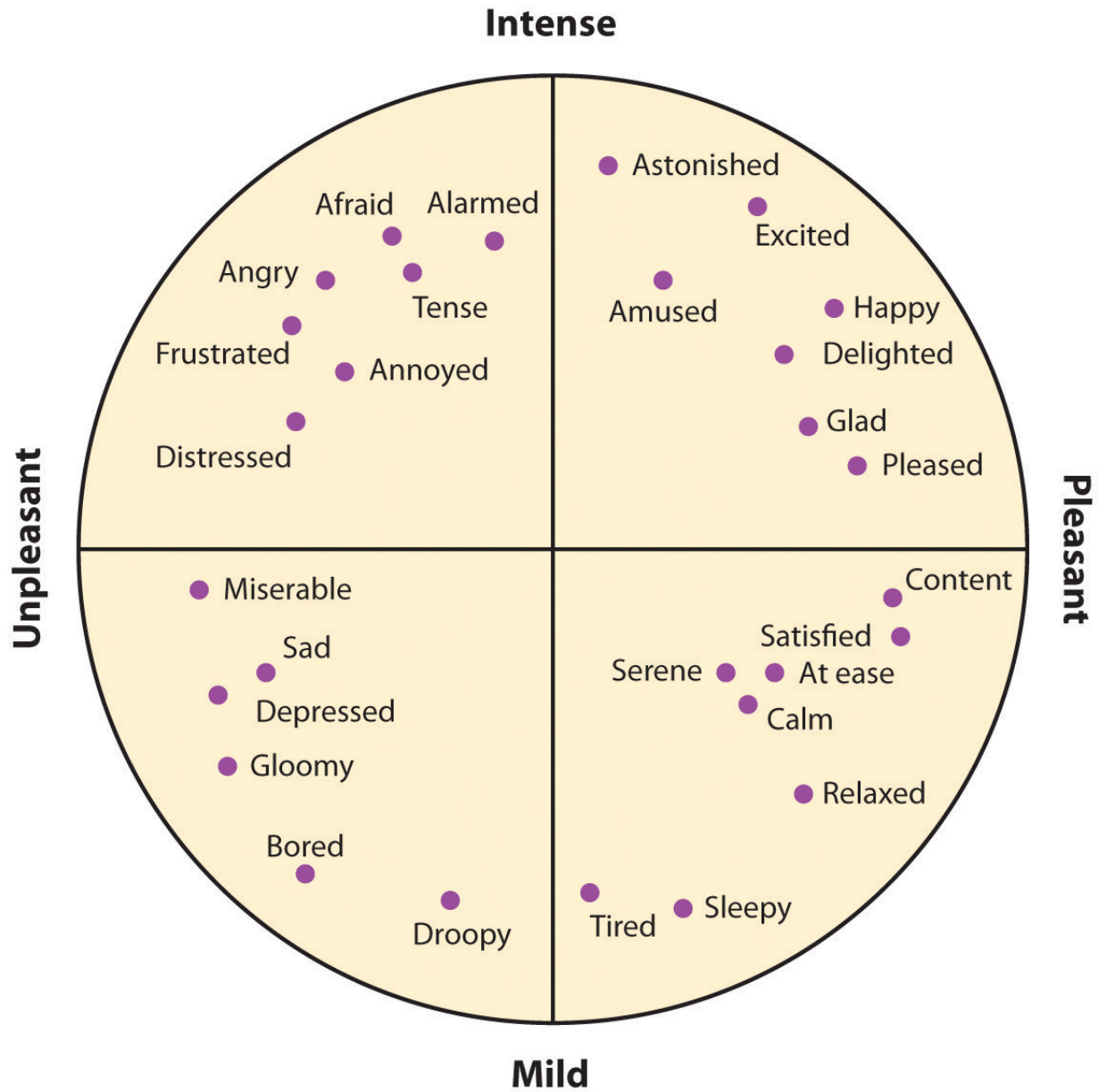
boredom
sadness
isolation

calm

satisfaction
softened
relaxed

awaiting
deferent
calm

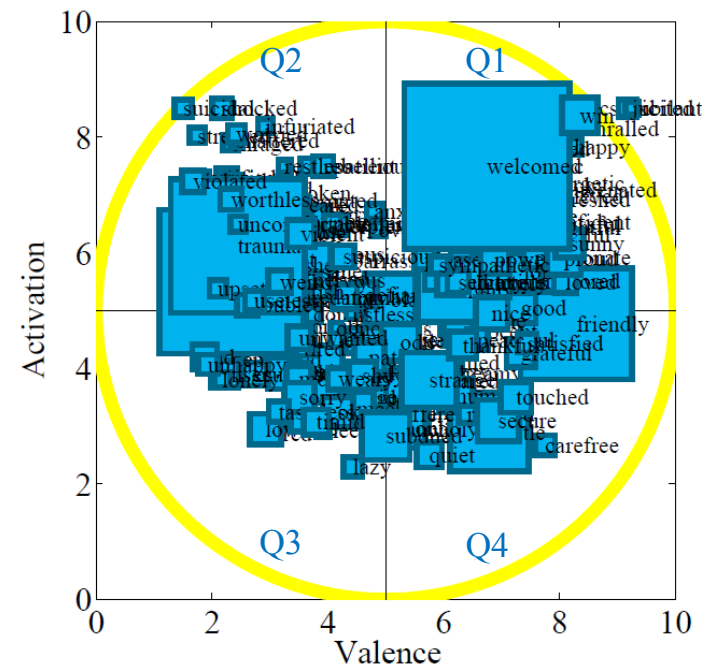
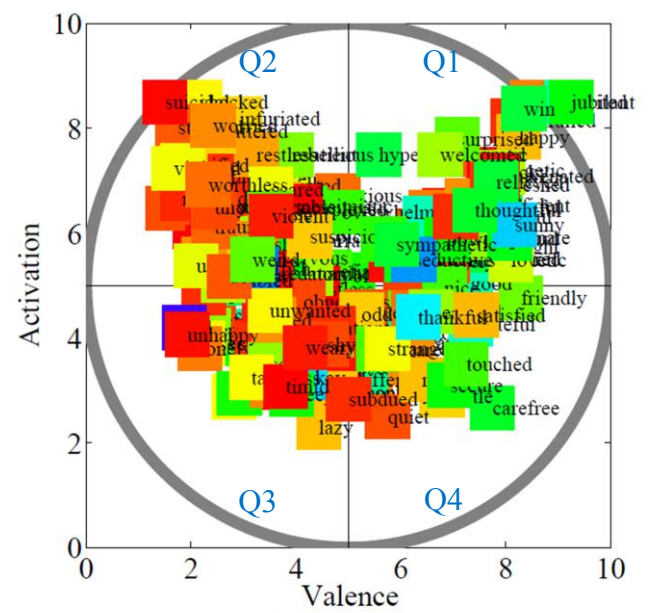
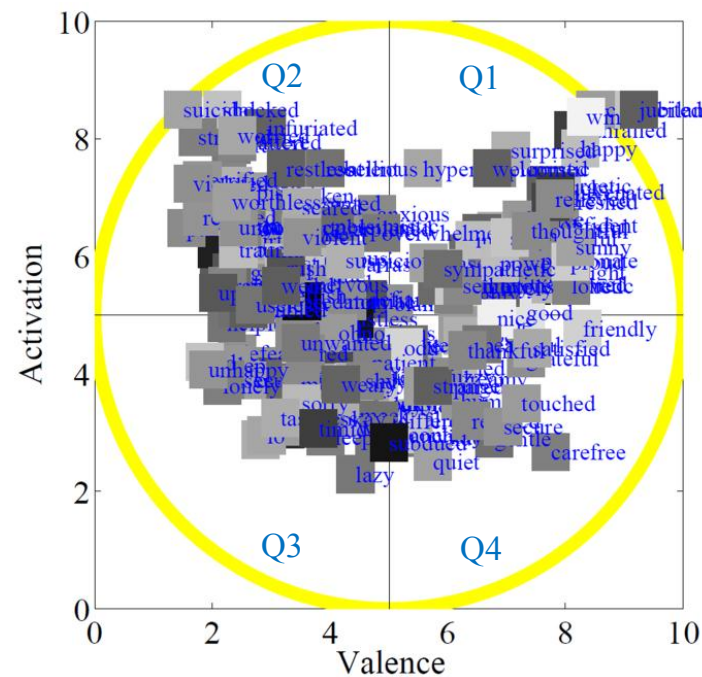
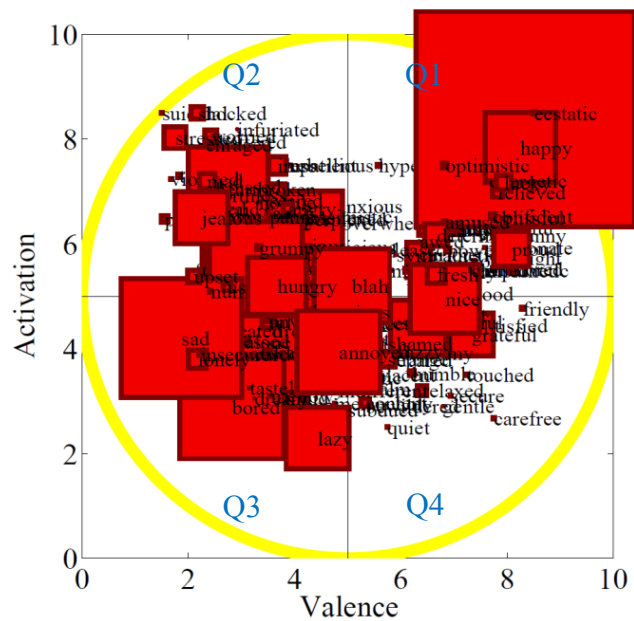




Not All Moods Are Created
Equal! Exploring Human
Emotional States in Social
Media

Summary

- Analysis of human moods beyond typically examined PA and NA.
- Use of amazon's mechanical turk to determine a corpus of mood indicative words.
- Basic idea: use hashtagged moods as self-reported information on the emotional state of a person.
- Use of the circumplex model to examine characteristics of identified moods.
 - This is because moods not only have a valence attribute, but also an activation attribute.
- The mood corpus is used to examine aspects of human behavior: degrees of mood usage, sociality, activity and participatory patterns such as information sharing (via links) and conversation.



Less social – lower followers Most social Less social – lower followers

- **Emotion** – brief conscious experience characterized by intense mental activity and a high degree of pleasure or displeasure
- **Affect** – an instinctual reaction to stimulation occurring before the typical cognitive processes considered necessary for the formation of a more complex emotion
- **Mood** – emotional state. Moods differ from emotions or affects in that they are less specific, less intense, and less likely to be triggered by a particular stimulus or event
- **Sentiment** – attitude or opinion with respect to a specific topic, event or situation

What could be the benefits of characterizing affect and mood with social media, instead of sentiment?

What additional insights could the activation dimension provide over just the valence dimension?

Twitter is used by millions and both the papers extensively leverage this source of data in measuring mood and affect.

How does use of Twitter for this purpose address limitations in existing mood or affect measurement methods?

Twitter is used by millions and both the papers extensively leverage this source of data in measuring mood and affect.

But could Twitter also have bias?

How do you expect the results to be different if the papers used: 1) Facebook
2) Instagram?

Could platform affordances impact specific moods and their manifestations on social media? How?

Dictionary approach of mood detection:
what is its limitation?

Brainstorming Exercise

True emotion versus displayed emotion on social media: propose a study design to tackle this issue?

Now let's talk about the Facebook emotion contagion study!

People use social media for all kinds of reasons and purposes. Would that affect the moods they express?

What are some of the other aspects, not considered in the papers, they may impact mood? (Hint: Aristotle said: “man is a social animal”)

One possible application is to study Twitter moods during important events, and how they impact each other. However can public displays of mood from others impact our opinions?