



CS 4803 Social Computing: Social Text I

Munmun De Choudhury

munmund@gatech.edu

Week 6 | September 21, 2014



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.

astonishment
eagerness
curiosity

inspiration
desire
love

irritation
disgust
alarm

activated

disappointment
contempt
jealousy

unpleasant

pleasant

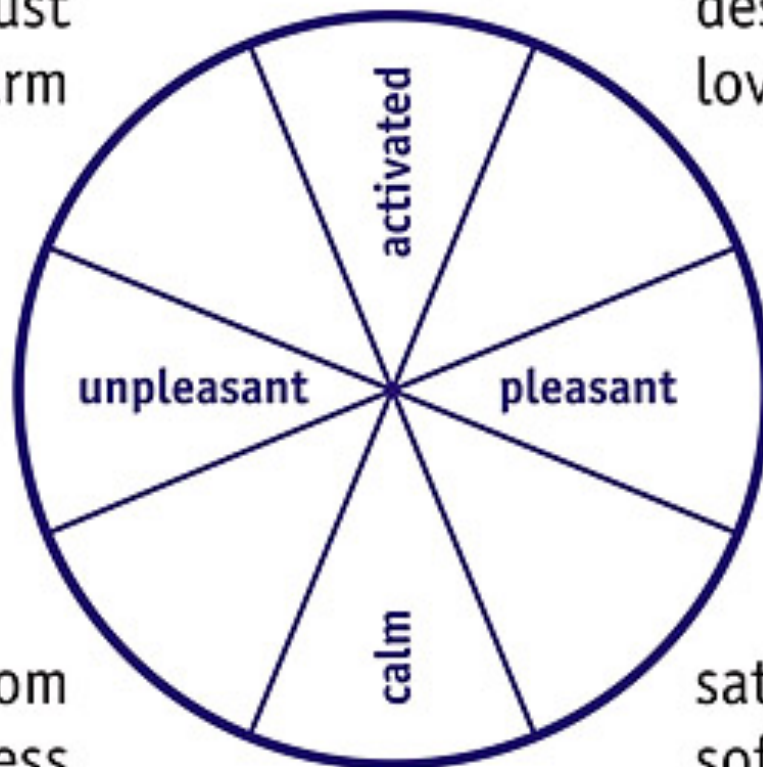
fascination
admiration
joyfulness

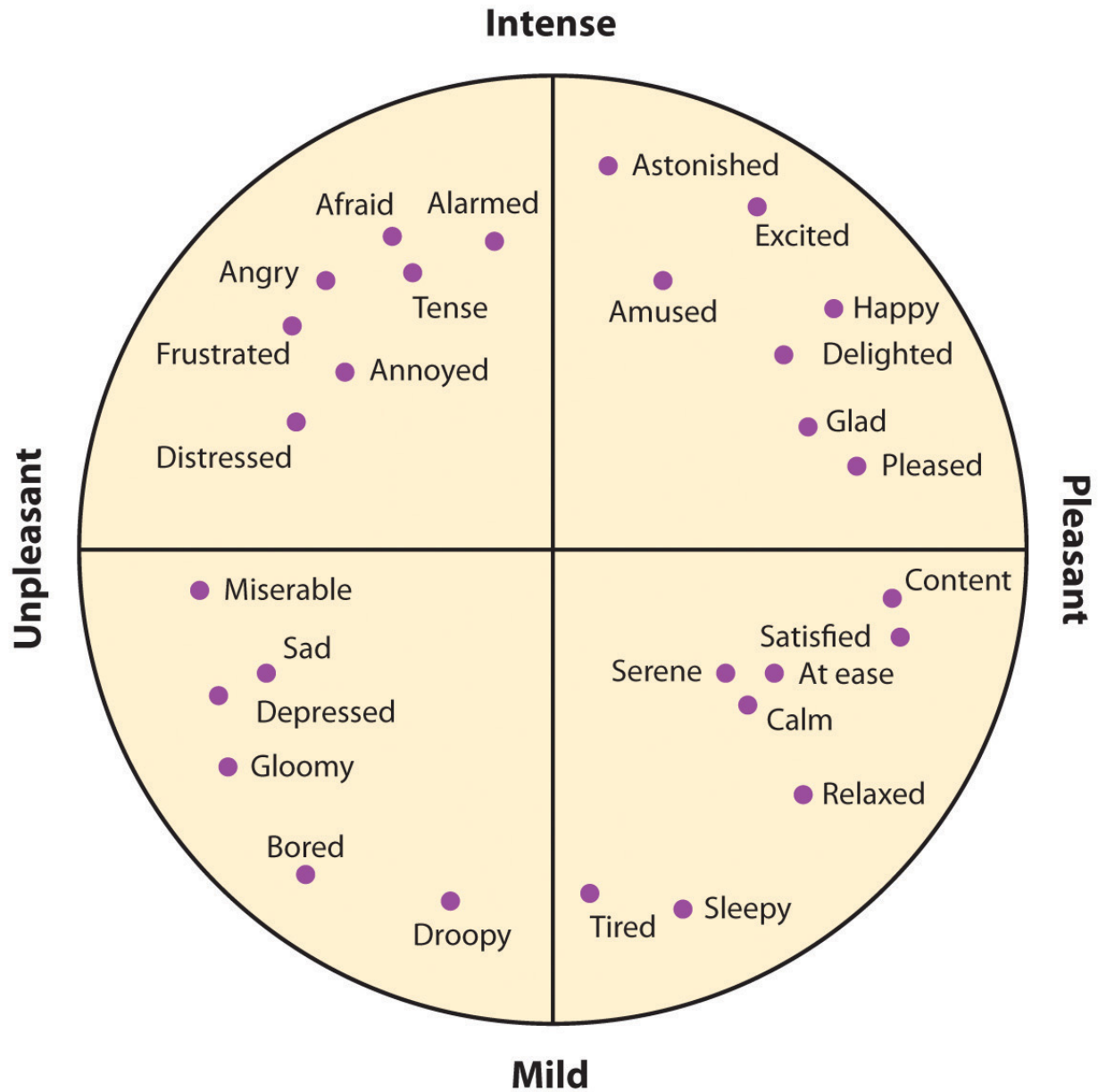
boredom
sadness
isolation

calm

satisfaction
softened
relaxed

awaiting
deferent
calm





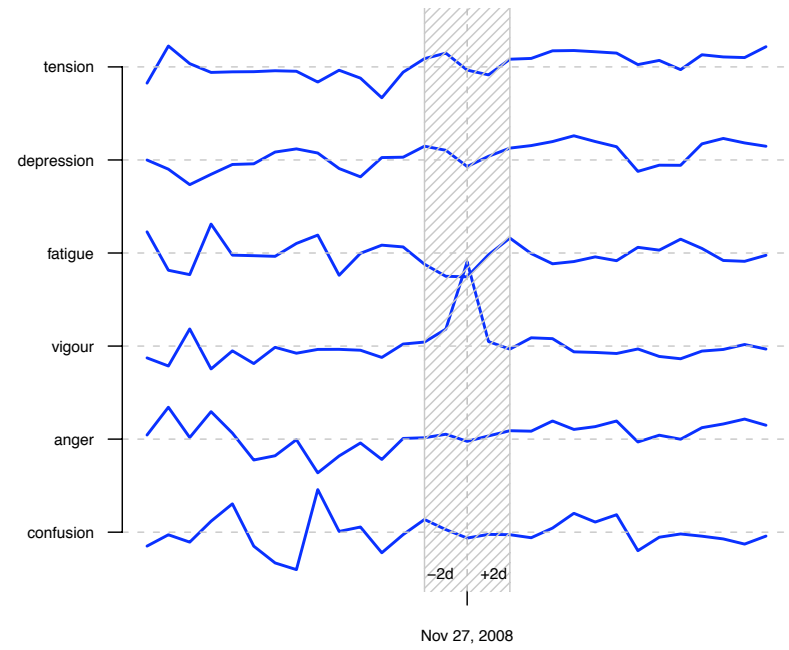
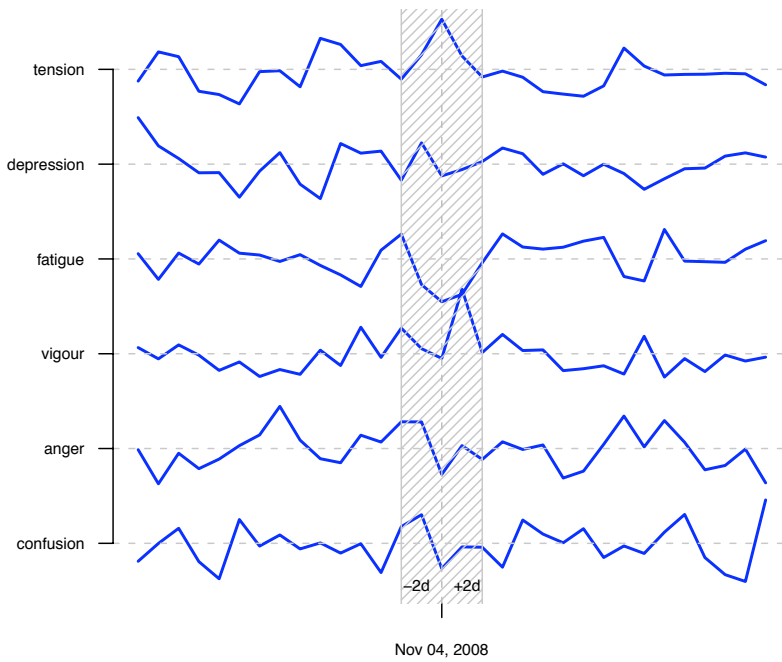
Not All Moods Are Created
Equal! Exploring Human
Emotional States in Social
Media

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.

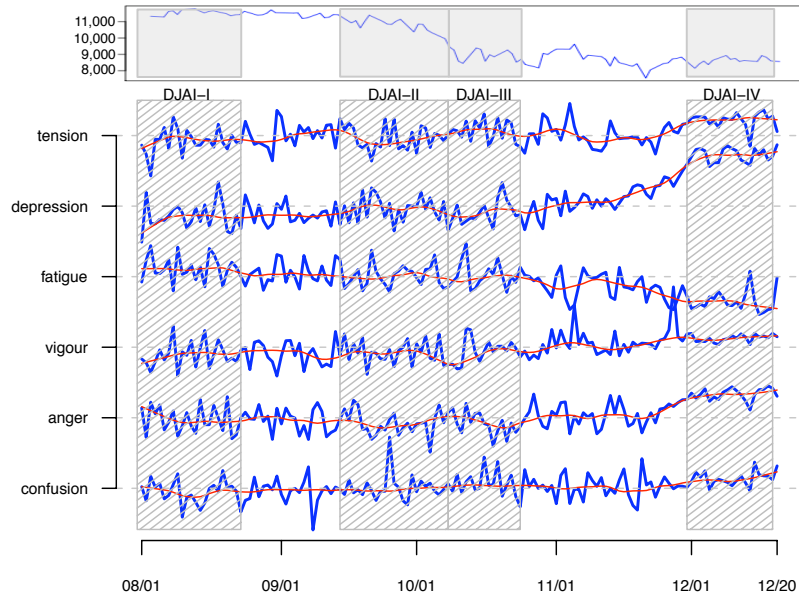
Modeling Public Mood and Emotion: Twitter Sentiment and Socioeconomic Phenomena – (Bollen, Pepe, Mao, 2010)

- 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



Many of the sentiment theories used are grounded in psychology: what is the utility of studying Twitter?

Twitter is used by millions, but could it also have bias?

Dictionary approach of mood detection:
what is its limitation?

True emotion versus displayed emotion
on social media: how would you tackle
this issue?

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

Would “self-presentation”, “social comparison” or identity impact the kinds of moods shared?

Can social media manifested emotion have a cultural, demographic, or geographical bias?

Could the moods of certain Twitter users be more “important” than others? (Hint: influencers and contagion)

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?

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