



# Positive Online Experience

Lynnette Hui Xian Ng  
Carnegie Mellon University



1. What is a “Positive Online Experience”?
2. How do we experience online?
3. Challenges & Opportunities

# Invoking Joy



“Joy, Riley wants you”  
– Sadness

# Encouragement



“Joy, you’ve made a lot of mistakes, and you’ll make a whole lot more in the future. But if you let that stop you, we might as well lie down and give up.” — Anger

# Expressivity



“We are Suppressed Emotions!”  
— Fear

# Expressivity



“We should lock the door and scream  
that cursed word we know”  
— Anger

# Friendship



“Friendship Island is pretty great too.”

“The point is, the Islands of Personality are what makes Riley, Riley.”

— Joy

# Overcomes Boredom



“Ennui... is what you would call... the  
boredom”  
— Ennui



1. What is a “Positive Online Experience”?
2. How do we experience online?
3. Challenges & Opportunities

 lynnnette @quarbyy · Jun 13  
Preprint of my favoritest work to date! "Exploring Cognitive Bias Triggers in COVID-19 Misinformation Tweets: A Bot vs. Human Perspective" combines computational methods, data science, and social psychology!  
[arxiv.org/abs/2406.07293](https://arxiv.org/abs/2406.07293) (1/3)

 arXiv.org  
Exploring Cognitive Bias Triggers in COVID-19 Misinfo  
During the COVID-19 pandemic, the proliferation of misinformation on social media has been rapidly ...

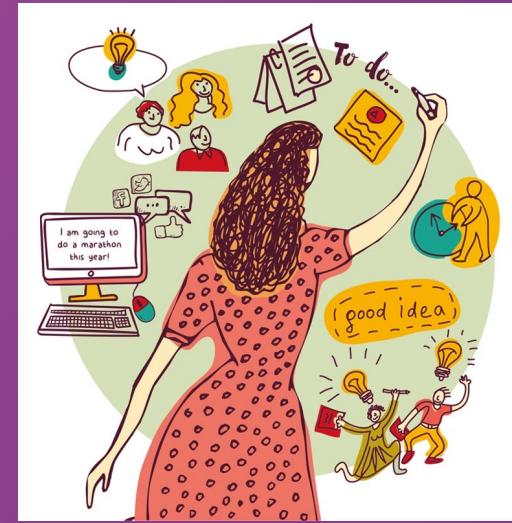
1 8 20 1.8K

 lynnnette @quarbyy · Jun 13  
1. We compiled a dataset with COVID-19 vaccine-related misinfo, annotated by bots/humans, and by eight cognitive biases.  
2. We develop a computational method to identify these triggers of cognitive biases.  
3. We analyze the effects of bias triggers on post engagement (2/3)

1 1 102

# Text

# Behavioural



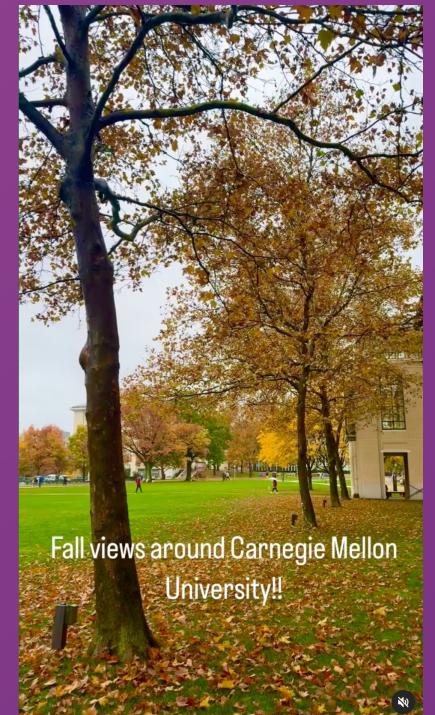
 littlebabypenguin Follow  
312 posts 3,621 followers 1,036 following  
Surviving CS PhD at CMU w Snow & Elio  
Pittsburgh USA  
Doodles: @babypenguindoodles  
Pics: @penguinshootphotos  
★ DM for... more  
[quarbyy.github.io](https://quarbyy.github.io)

Pittsburgh 2 PhD Heart trans... MT NY PA Pittsburgh

POSTS REELS TAGGED

# Image

# Audio/Video





1. What is a “Positive Online Experience”?
2. How do we experience online?
3. Challenges & Opportunities

# Real Time



Online posts updates

Detection algorithm

Reaction sequences

# Compute Resources



Commercial API are expensive

Locally run tools compute heavy

Locally run checks can be by-passed

# Network Utilization



Offloading to cloud consumes bandwidth

Does not scale for complex solutions

What is the minimum to upload?

# Privacy & Legality



How to store data for analysis?

What if data stored are illegal?

What about badly labeled data?

# Evolving Trends



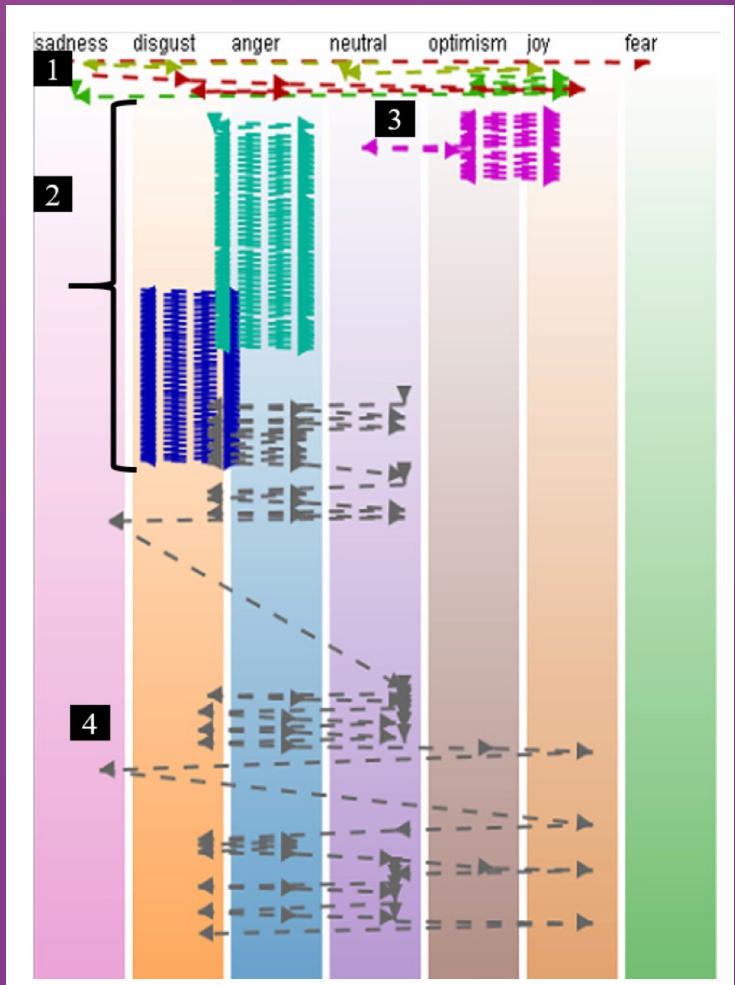
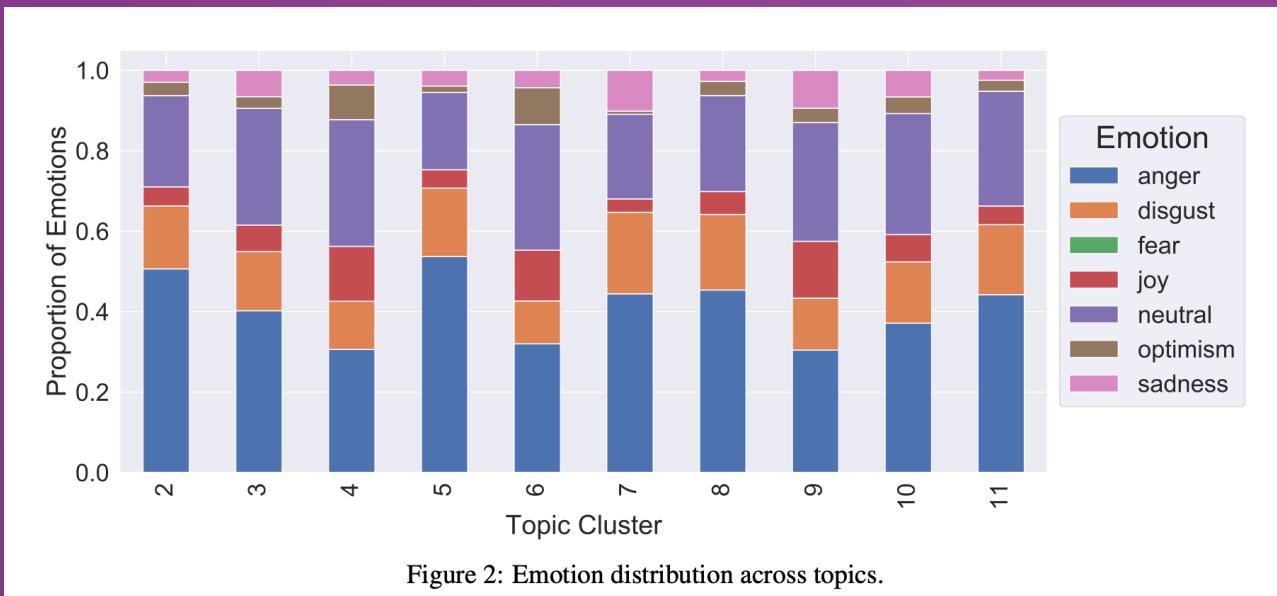
Models trained yesterday are outdated today

Lingo of emotions/ emojis/ gifs evolves



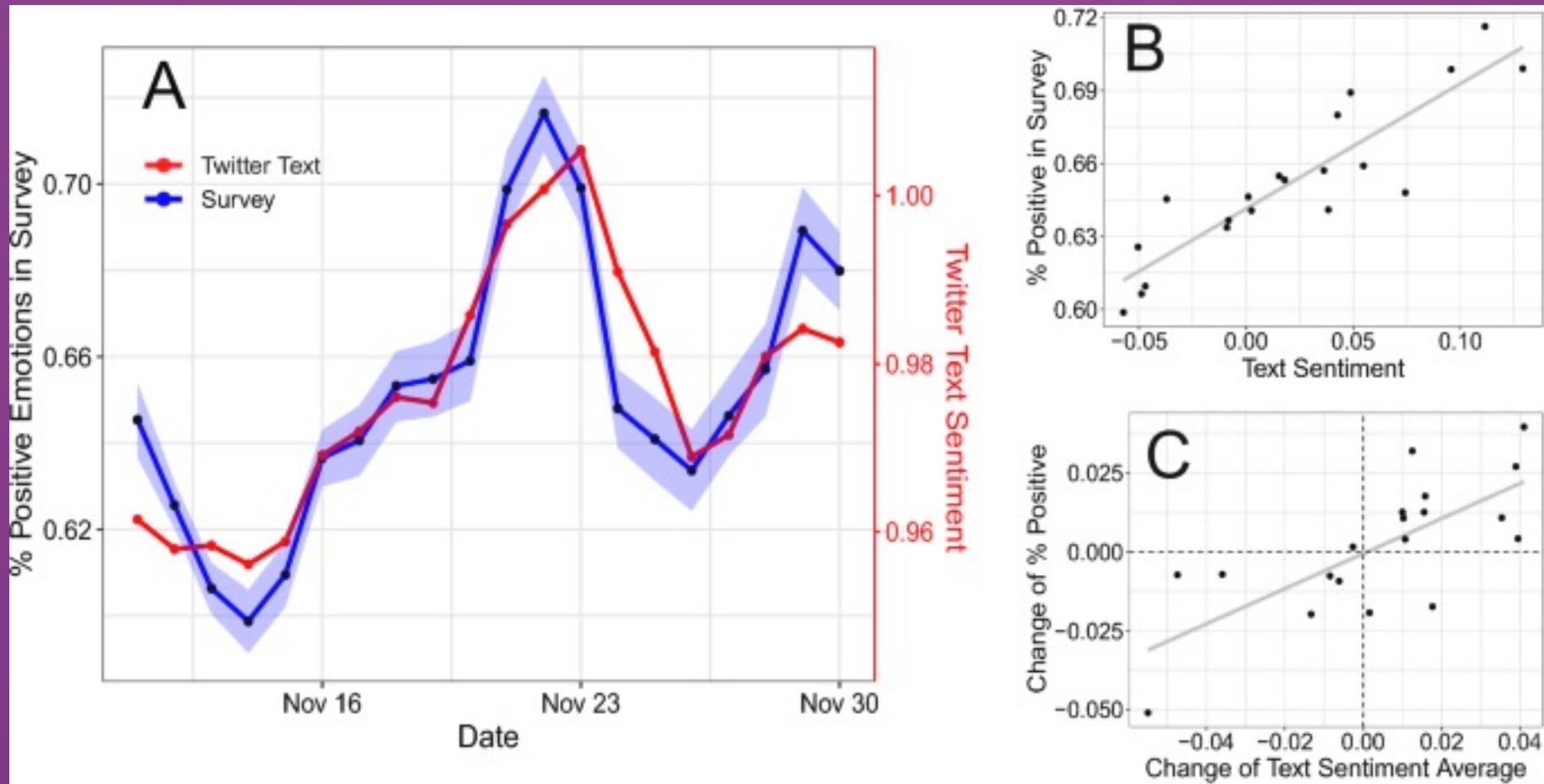
1. What is a “Positive Online Experience”?
2. How do we experience online?
3. Challenges & Opportunities

# Emotional Dynamics



"I miss you babe: Analyzing Emotion Dynamics during COVID-19 Pandemic ". 2020.

# Emotional Dynamics

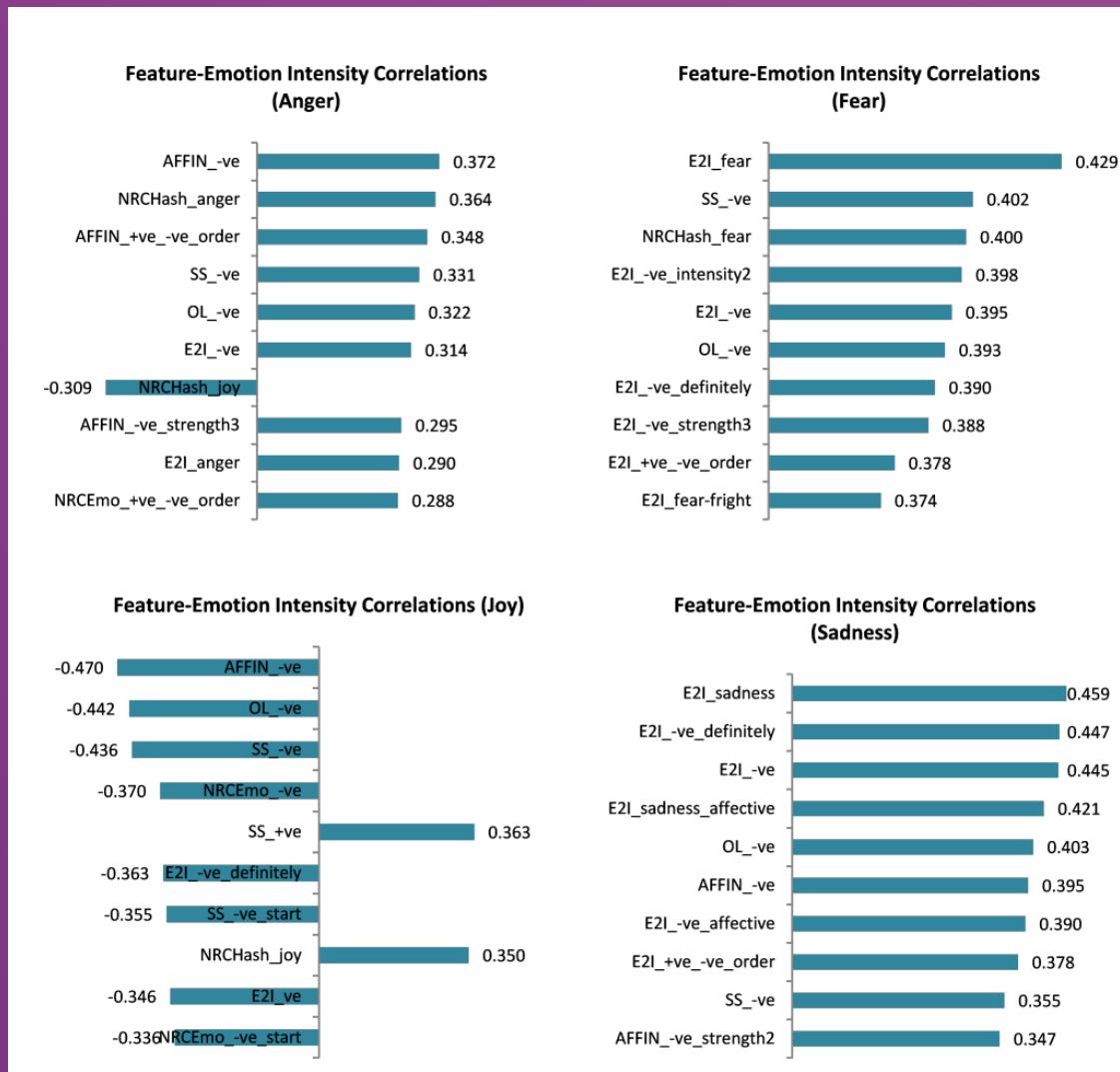


# CrystalFeel, 2018

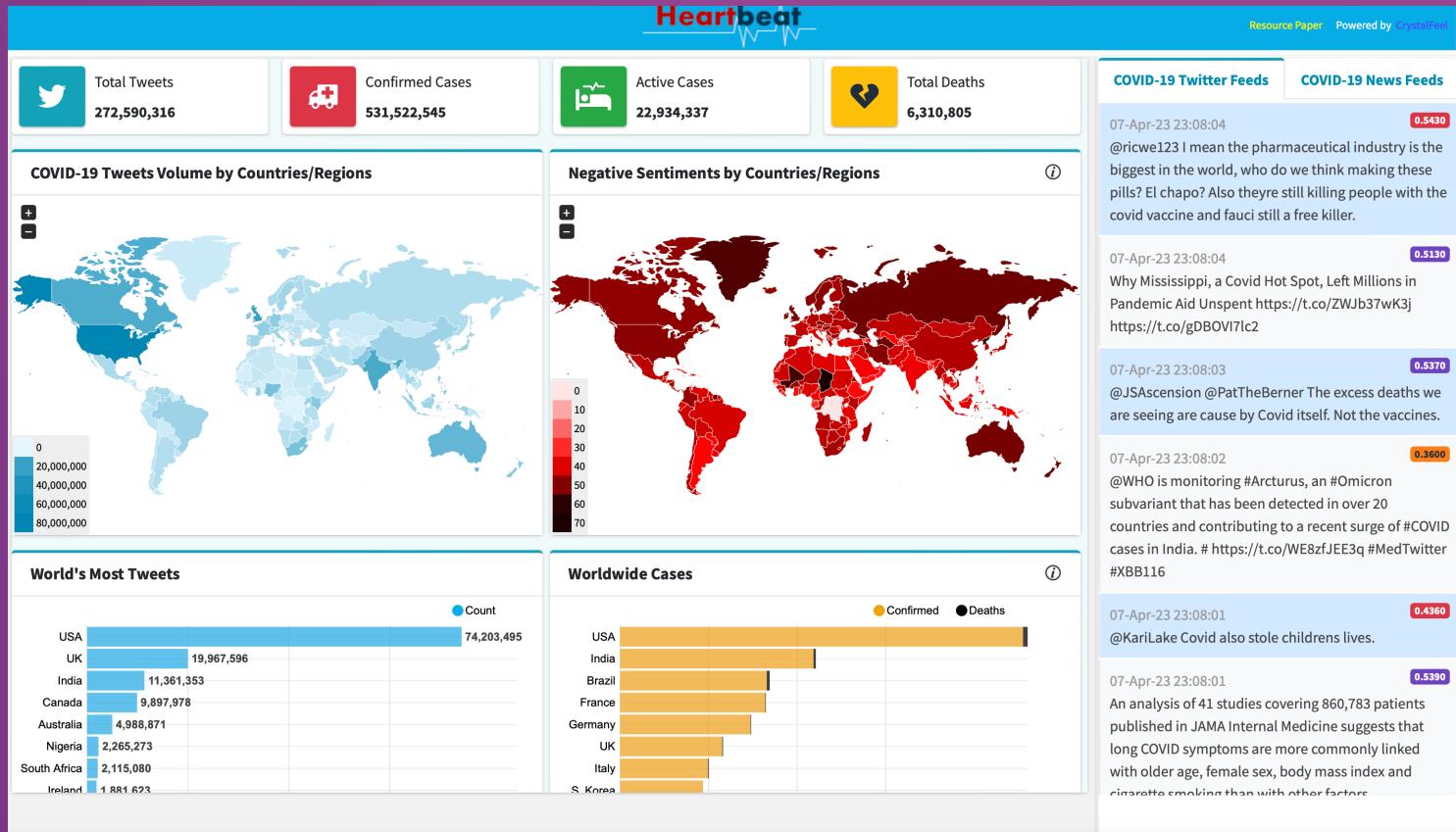
## Analyzing Emotional Intensity in Text

Mainly analyzed Anger, Fear, Sadness

Can we scale it up?  
Can we analyze Joy?



"Crystalfeel at semeval-2018 task 1: Understanding and detecting emotion intensity using affective lexicons". 2018.



# HeartBeat ,2019

Emphasis on negative emotions

What about positives?  
What can we learn about positivity in crisis?



# Emotions do not work alone



“They came to help... because of  
Sadness”  
— Joy

# Emotions do not work alone



What are the pathways to positivity online?

What topics invoke positivity?

How do we provide a positive experience?



Lynnette Hui Xian Ng  
Carnegie Mellon University

[quarby.github.io](https://quarby.github.io)