



Ethical, Pragmatic, and On-Brand

Data requirements, including de-identified population-level data, to produce real-time or more timely information to identify individuals, groups, communities, and populations at risk for suicide

Glen Coppersmith, PhD

Chief Data Officer
SonderMind

Planning Committee Member

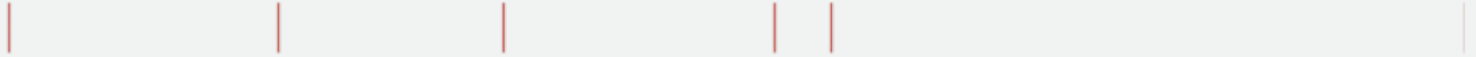
Recommendations

- Tech companies make aggregated data feeds accessible to trusted parties
 - individually or in consortium
- Tech companies work with trusted parties to offer training resources to caregivers of those at risk



Information about suicide risk exists in the clinical whitespace.

Interactions with the healthcare system



One social media source



Guiding Assumptions

- Tech companies have (or could have) the ability to identify at least some of the people at risk for suicide based on their behavior.
- Tech companies have meaningful cohorts of users (e.g., veterans, healthcare workers, people in the DC Metro Area).
- The organizations with the information about risk are not the organizations with the capabilities to prevent suicide.
- Organizations can only act within the constraints of their Brand and Legal.



Suicide-Risk-Related Information exists on Spectra

Time Before Crisis:

Social Determinants of Health ————— Crisis

Level of Aggregation:

All Humans ————— Individual

Fidelity of Information:

Directional ————— Calibrated



The most obvious applications lack pragmatics.

Time Before Crisis:

Social Determinants of Health

Crisis

Level of Aggregation:

All Humans

Individual

Fidelity of Information:

Directional

Calibrated



What can we do if sensitive information does **NOT** cross the barrier?



Many pragmatic and useful applications remain by relaxing one or more dimensions.

Time Before Crisis:



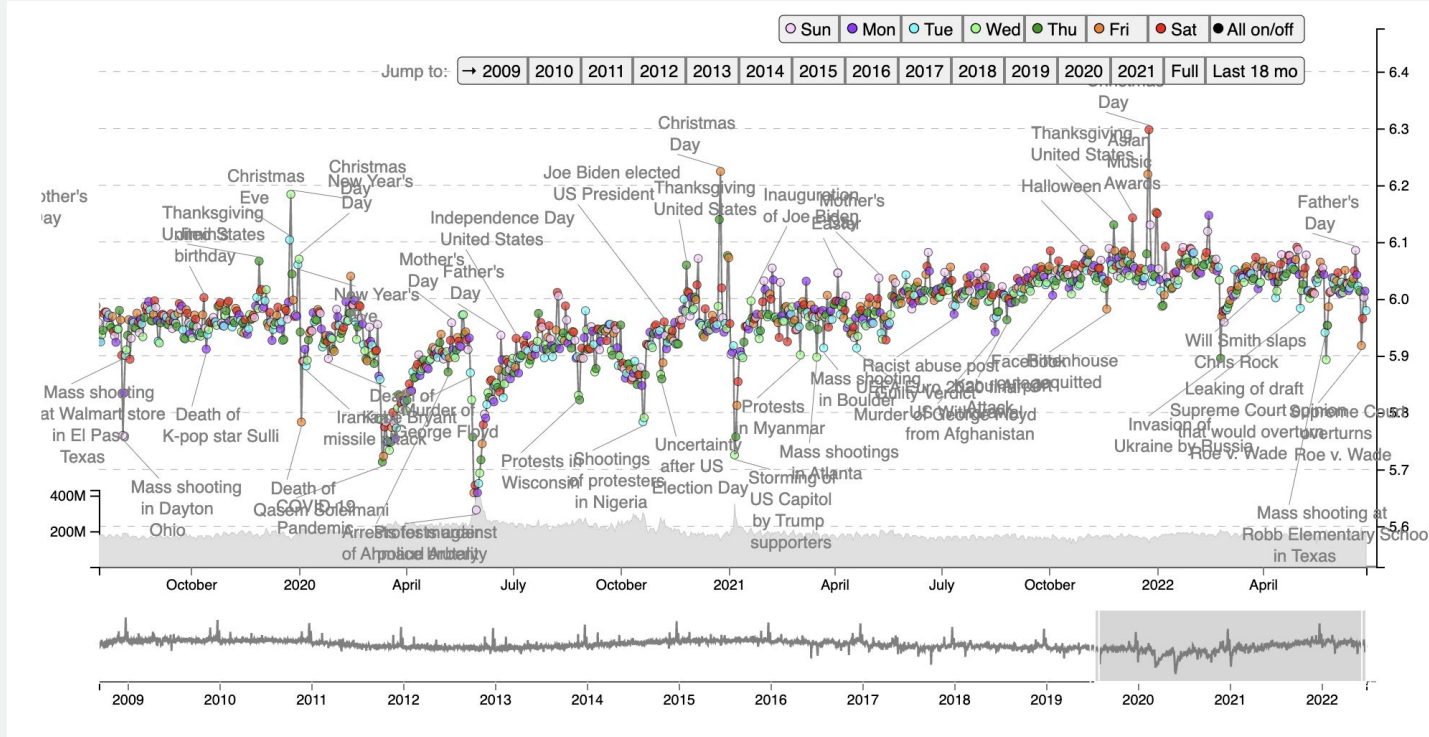
Level of Aggregation:



Fidelity of Information:



Screenshot from Hedonometer.org



Hedonometer – measuring happiness in near-real-time.

Time Before Crisis:



Level of Aggregation:



Fidelity of Information:



Measuring risk of specific populations in near-real-time.

Time Before Crisis:



Level of Aggregation:

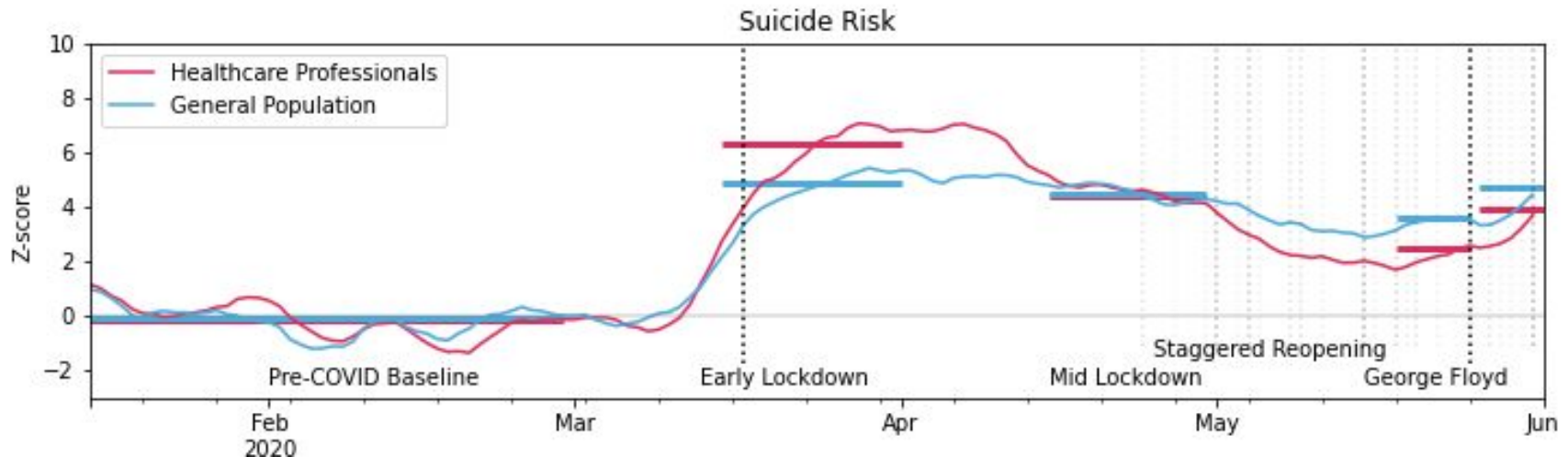


Fidelity of Information:



Assessing population-level symptoms of anxiety, depression, and suicide risk in real time using NLP applied to social media data

Fine, Crutchley, Blase, Carroll, Coppersmith (2020)



Near-Real-Time information about when and where aggregated risk is increasing is novel.



Healthcare Professionals exhibited increased suicide risk in the early pandemic.



Veterans exhibited more distress after withdrawal from Afghanistan.



Which regions are exhibiting increased stress after a recent event?



After a celebrity suicide, how do we best deploy limited capacity to diminish the Werther Effect?

Recommendations

- Tech companies make aggregated data feeds accessible to trusted parties
 - individually or in consortium
- Tech companies work with trusted parties to offer training resources to caregivers of those at risk





Thank You.

Glen Coppersmith, PhD

Chief Data Officer
SonderMind

Planning Committee Member