

# Behavioral Responses to Pandemic Disinformation Mathematical and Psychological Modeling

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## Goal:

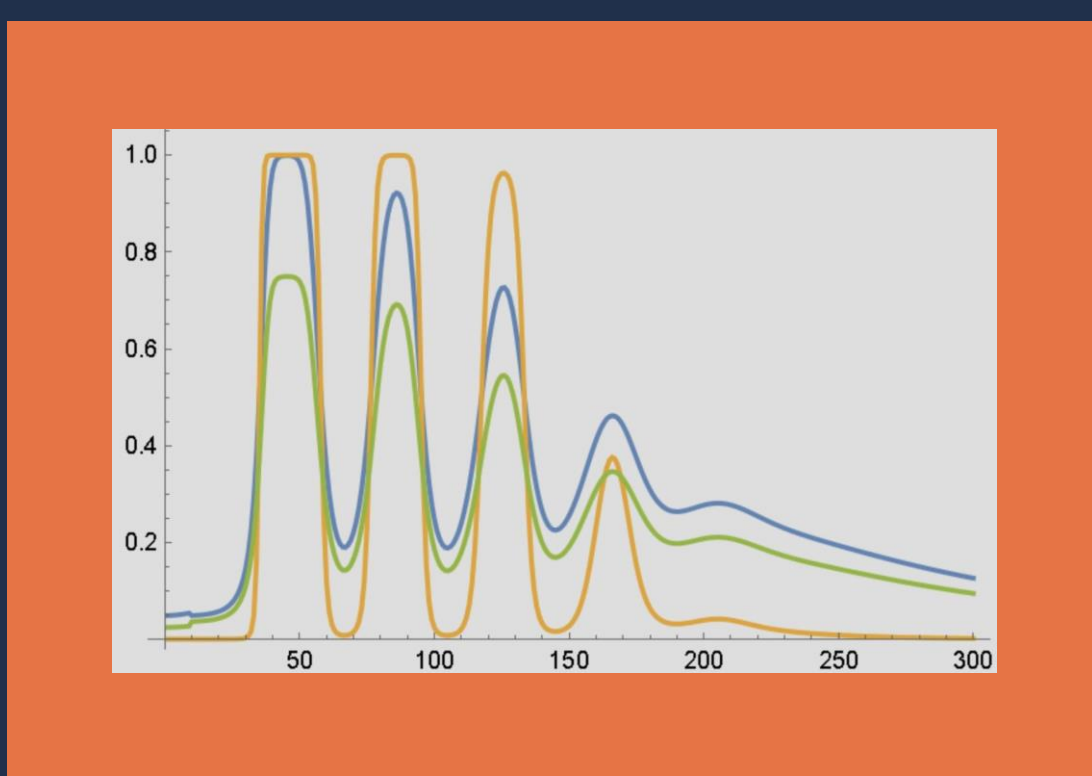
Analyze the role that disinformation has in affecting behavior in regard to risking exposure during a pandemic.

## Methods:

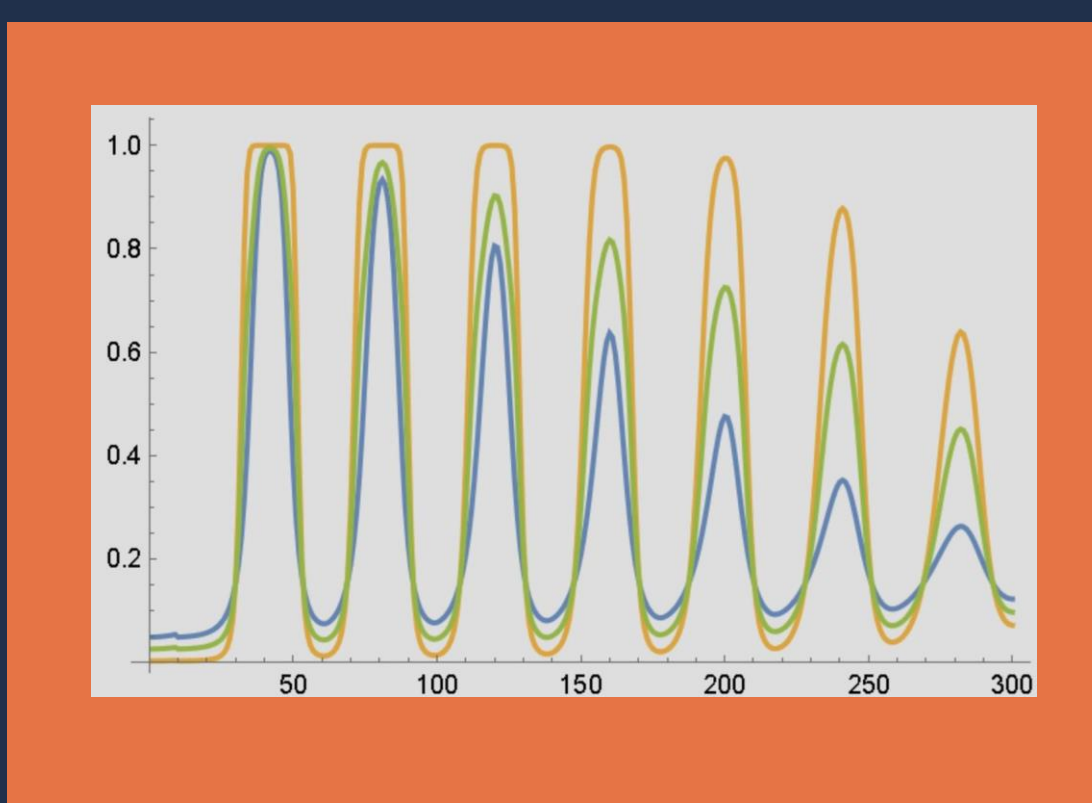
Utilized coding in Wolfram Mathematica to conduct an analysis of a population dynamic in relation to viewing infected individuals and observing digital news media. Worked on creating a pseudo population to analyze through Java. Created a hypothetical model for future analysis in regard to disinformation through a three phase system.

## Results:

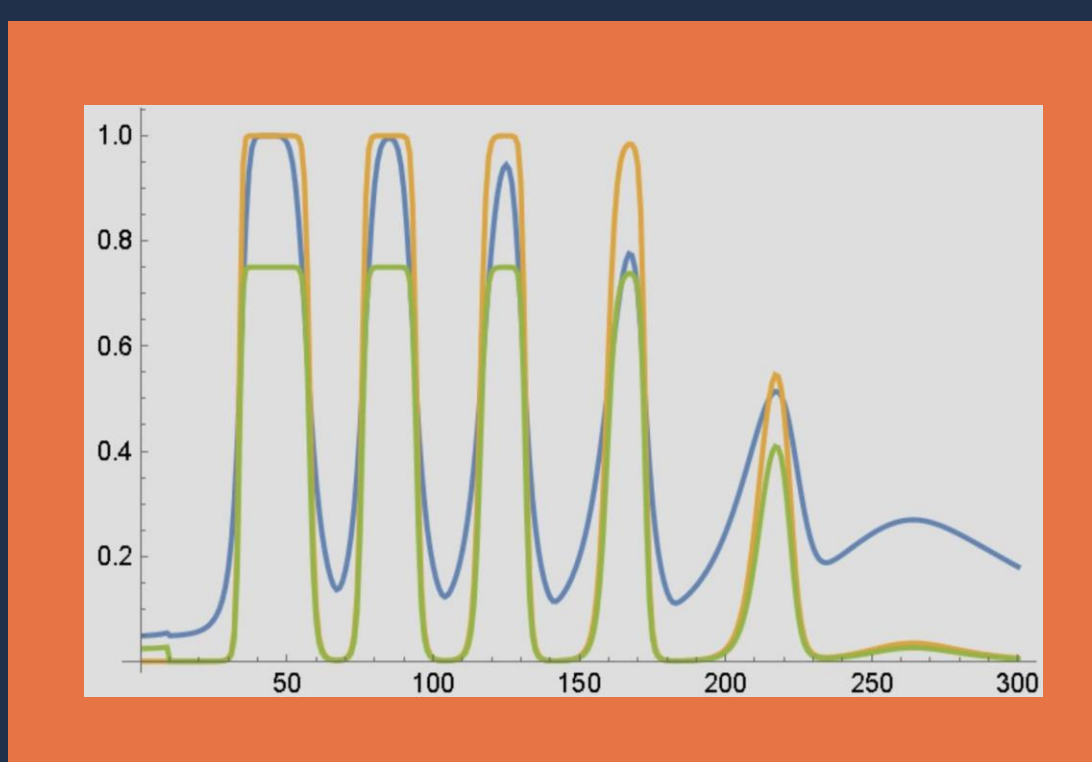
### Low News Affect:



### Medium News Affect:

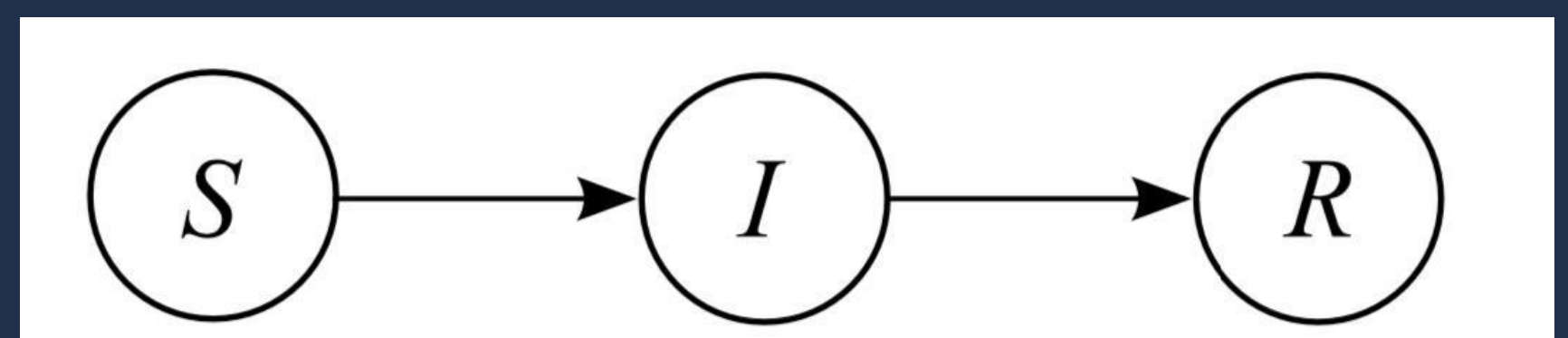


### High News Affect:

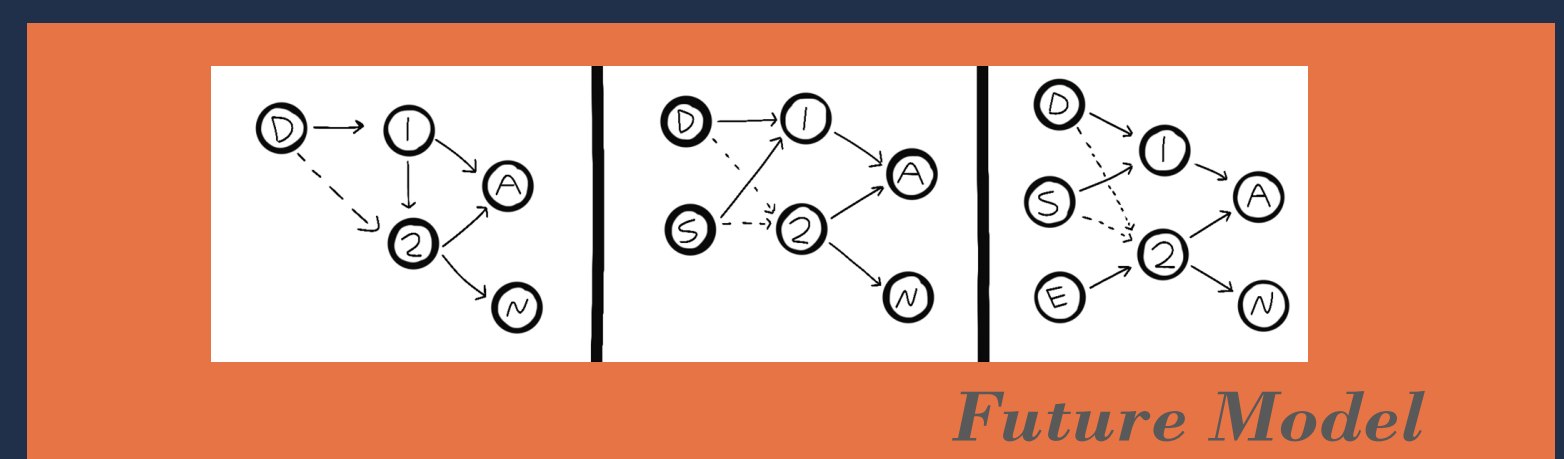


## Background:

- Dual Processing theory
- Pandemic Stressors
- SIR Model



## Future Directions:



- Continue to develop pseudo population system
- Observe more risk factors associated with disinformation
- Identify if short term media can pose additional risk to placing one into memory one
- Develop a model to account for differing digital media rather than a fixed umbrella term
- Field research involving cases of individuals risking exposure due to disinformation

## References:

- 1) Brauer, F., & Chavez, C. C. (2011). *Mathematical Models in Population Biology and Epidemiology* Second Edition. Springer.
- 2) Kahneman, D. (2002). *MAPS OF BOUNDED RATIONALITY: A PERSPECTIVE ON INTUITIVE JUDGMENT AND CHOICE*.
- 3) Ahsan, A., & Qazi, T. A. (2023). Exposure to Pandemic News on Mainstream Media: A Study of Risk Perception and Perceived Stress. *Journal of Asian Development Studies*.