Project Proposal Draft: Understanding Covid-19 Spread Dynamics

I. Introduction:

- Objective: This project aims to investigate the impact of social interactions on Covid-19 transmission, specifically focusing on exposure to friends who have contracted the virus. Additionally, we will explore how age influences the probability of infection.

II. Focus Areas:

- Agent Interaction:

- Defining Proximity:*Proximity will be tailored to represent exposure within social networks. It may consider factors like frequency of interaction, shared spaces, and the duration of contact.

- Agent Movement Model: Investigate how agents, representing individuals, move within their social environments. Examine how different age groups might exhibit distinct interaction patterns.

- Disease Spread Modeling:

- Agent Interaction and Transmission: Develop a model that correlates exposure within social networks with the likelihood of Covid-19 transmission. Explore whether exposure to friends increases the probability of infection.

- Age-Related Infection Dynamics: Analyze how age influences the probability of getting infected. Examine potential age-specific vulnerabilities or resistances to the virus.

III. Questions to Address:

1. Does exposure to friends who have contracted Covid-19 significantly elevate the risk of infection for an individual?

2. How do different age groups exhibit distinct patterns of interaction within their social networks?

3. What role does age play in influencing the probability of Covid-19 transmission within social circles?