Exercise 5

What is complex contagion and how it's different from simple contagion (you may want to refer to readings – Centola)

Before we delve into the descriptions of simple and complex contagion, we can first develop some context for this concept by exploring a few examples. As expressed in his book, *Centola* outlines how the certain innovations that were previously rejected all of the sudden come into the spotlight, movements such as black lives rights emerge out of the waterworks after decades of African American violence and oppression, and substances such as marijuana all of the sudden become socially acceptable despite being illegal for decades prior. These points bring to light a key question - what are the types of attributes which make some innovations more successful than others? *Centola* argues that at their core, these success stories spread through social networks. For decades our presumption around social change was predicated on this notion that change spreads like a virus, and this metaphor of a virus can be extended to modern day social media influencers in which inference can be made to state that well-connected individuals can play a role in the spread of information. Another example of this virus metaphor can extend to domains such as marketing, where the term stickiness refers to a KPI for a campaign and how well it sticks with its audience, where certain 'viruses' are particularly infectious.

While this metaphor of explaining contagion is useful in developing a conceptual understanding of the dynamic nature of the spread of ideas and 'viruses', this metaphor has some limitations as to instill real change you must also change people's beliefs and behaviors which is much harder. Information can spread quickly but entrenched sentiments and behaviours remain the same, especially as a person gets older and becomes less likely to accept new information contrary to their core beliefs. Cognitive dissonance, within this context, is another concept which further helps us to understand how difficult it is to actively change core beliefs where someone can be made aware of a certain objective truth but decide to act contrary nevertheless. This discussion brings us to this notion of **simple contagions**, which expresses the idea that catchy ideas and memes spread quickly to everyone but lack any lasting impact on what we think or the way we live. For this information to become entrenched, a powerful coercive force in causing individuals to adopt new beliefs are social networks. The network around us shapes how we respond to an innovation, just as we saw in the in-class exercise in which we unconsciously believe that our drinking patterns are similar to our peers. This deeper process, which again is change at the level of ones core beliefs and fundamental tenants, is referred to as **complex contagion** and is extremely interesting in learning about how to influence change. When we define social networks, we are outwardly expressing any personal network which makes up our social world, and in todays ditigal era, the online environment predominates this reality. One important conclusion drawn by *Centola* is that effective social change is not as much about information but rather norms. In this light, social networks are the prisms which determine how we see those behaviors and interpret those ideas. Within these networks, we can also observe network bias which defines the way that our social networks invisibly shape the norms we follow.

What does complex contagion mean for diffusion of behaviors in organization?

Complex contagion has the propensity to cause radical change in organizational behaviour as new beliefs or ideas are disseminated throughout a network. Drawing on our previous definition of complex contagions,

being able to cause change in ones beliefs and consequently their engagement with others within an organization can be a result of the network bias that arises. When others observe certain behaviours consistently in others over time, there is a much larger likelihood that they will eventually take up that behavior. This became evident within scientific community during the early days of social psychology, as we had discussed in class, with Milgram and his group of researchers with their exploration on obedience, bringing to light fascinating realities about human social dynamics, albeit unethical in its approach when compared to todays standards. Another notable case looking at influencing social change at the individual level is the Stanford Prison Experiments, which sheds light on the fact that group behaviors are heavily influenced by the power dynamics present and behavioral expectations placed on specific roles. In both of these examples, individuals were influenced by their key network players to perform certain types of behaviors which were very much against their core beliefs. The real power of complex contagion can essentially cause radical organizational change if these correct network players are identified and an appropriate mechanisms or channels to deliver information are identified. Simple contagion, broadly speaking is a way for us to observe others behaviours as a signal of the overall credibility of that behaviour which reduces the risk associated with that particular contagion. As this source of contagion gets more and more repeated and normalized, it will eventually become a part of the culture of that organization.

How can we use the threshold models to better manage

Models of collective behaviour are typically generated in situations where there are two options and the overall benefits of each outcome is contingent on how many other actors chose which alternative *(Granovetter, 1978)*. The main concept within this framework is this notion of 'threshold', which is defined as the proportion of others which need to make a decision before a given actor does and the point in which the overall net benefits exceed net costs for that actor. This model begins with a frequency distribution of thresholds, which calculates the most optimal 'equilibrium' for making each decision *(Granovetter, 1978)*. With this in mind, let us explore how this applies in the following scenarios:

Prosocial behavior in organizations

- Establishing thresholds for altruistic behaviors in the organization

Learning

- Having pre-defined outcomes for learning objectives

Toxic or unproductive behaviors

- Ensuring a consistent definition of toxic and unproductive behaviors where any deviance from the established norm results in corrective action from a superior authority

Sources:

Granovetter, Mark. Threshold Models of Collective Behavior. The University of Chicago, 1978, https://www.uzh.ch/cmsssl/suz/dam/jcr:ffffffff-f952-f950-ffff-ffff87498b5e/03.18_granovetter_78.pdf.