Social Networking and its Effect on Society

Trinity Medley

Nick Rambaldi

Teachers:

Harry Henderson

Social Networks have changed the way we communicate. It has allowed for information to be shared and replied to in real time. In our simulation we intend to determine exactly how quick a social network can allow information to spread and the networking chains that it creates. In creating this simulation our team is learning about how social networking and the spread of information can be shown as synonymous to the stereotypical epidemiology project, in which we will have a patient zero going around spreading gossip. We will add the usage of Social Networks though to optimize information spread.

The scenario we will explore is one of a piece of gossip being spread. The person who first hears of the information will be our "patient zero" he will then go around telling people until everyone knows. For our project though we will also implement the use of links to model information spread through a social network and who is involved in who's social network. This should allow us to identify the original speed of information spread without social networks. We will then have a switch to activate the usage of social networks and we will rerun the simulation to see how much more efficiently it allows information to spread.

The project we choose was Effects of Social media on communication. We chose this project due to the implications of social media on many peoples every day lives and the importance of it in many cultures including our own. In the case of many of our peers, they use it to spread information about one another. So we decided to model the spread of information in a way that was synonymous to the transmission of a disease. In our model we used Netlogo 5.3 to model the transmission of information through the medium of social media and to determine the difference between important information and unimportant information. To do this we originally intended to use "links" in our model. Due to our incapability to do this effectively, we redesigned our simulation to show this in a way that could be defined as similar to a "disease epidemic". To do this we start our model with one person. This person knows a piece of information. This information could be important, or unimportant. The difference between important and unimportant information is shown in the random variable that decides the transmission of the fact. Important information has a higher probability of the data being transmitted, while unimportant information has a lower probability of being transmitted.

Another fallback due to our inability to properly implement links into our simulation is that we had a difficult time in modeling the difference in the spread on information when media was in use, and when it was not in use.

In essence our results are that the spread of information will increase in speed as population increase because distance and location will no longer become a variable when Social Networks are being used.