

Social Networks
Prof. S. R. S. Iyengar
Department of Computer Science
Indian Institute of Technology, Ropar

Lecture - 40
Strong and Weak Relationships (Continued) and Homophily
Summary - Strong and Weak Relationships

(Refer Slide Time: 00:10)



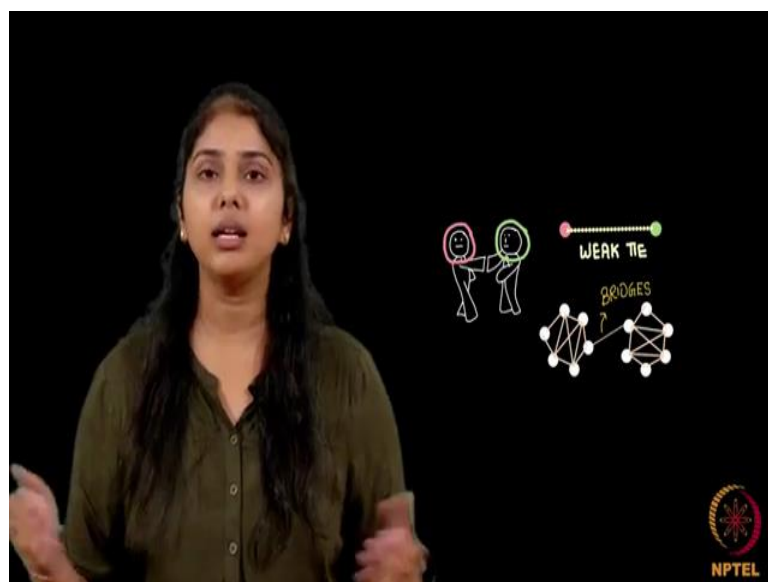
Congratulations, we have reached the end of week 3. Let us quickly recap what all we have studied. So, the first important lesson that we have learnt was we should be nice, we should be caring towards our close friends, towards our strong friends, but probably we should forget them when it comes about finding a nice job opportunity.

(Refer Slide Time: 00:20)



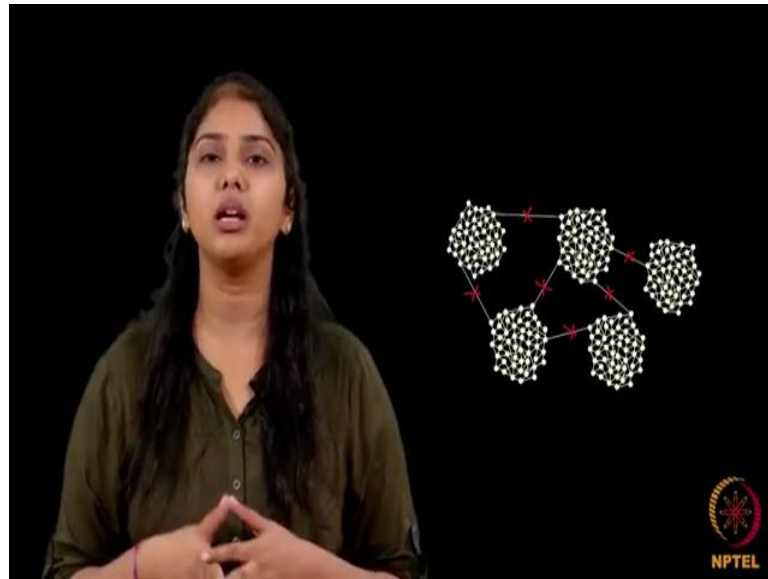
When it comes to finding a job opportunity it is better to contact a friend who is just an acquaintance, with whom we talk really, with whom we talk lesser less frequently and probably that person is my future employer or maybe a link to my future employer.

(Refer Slide Time: 00:53)



So, these people these kind of ties between me and a person with whom I talk less often we term it as a weak tie and we have looked at the importance of these weak ties in the networks. We have seen that in a network these kinds of weak ties they act as a connector between two different worlds.

(Refer Slide Time: 01:19)



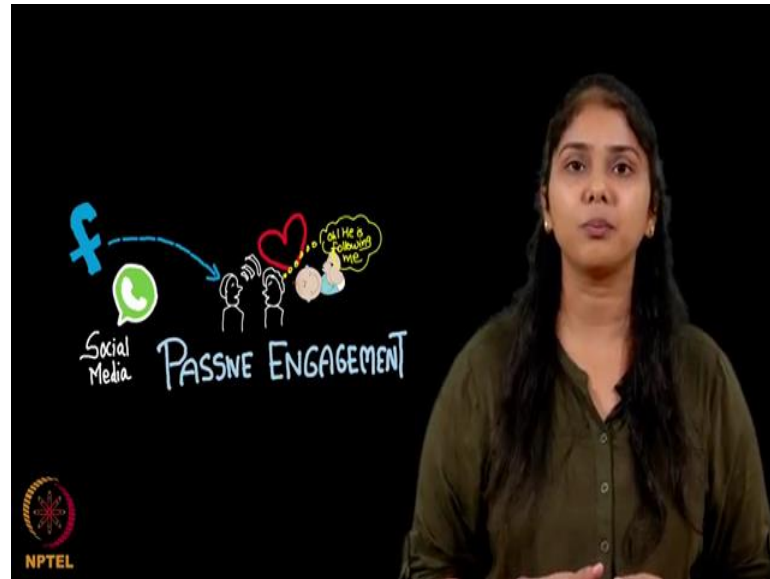
So, in our entire world these kinds of weak ties they connect two communities what will happen if we pull these weak ties and throw them away, we see what will happen to the world then. The world will get divided into individual components where there are no ties between these two.

(Refer Slide Time: 01:26)



What happens in this world, in this component nobody in this component comes to know about it. What happens here nobody here comes to know about it and all these different components evolve independently and probably that is not nice.

(Refer Slide Time: 01:56)



Next cute concept which we looked at was what kind of ties are there how do the ties they behave in our social networks, online social networks - like Facebook, Twitter, LinkedIn and all such places and we have seen that what happens on Facebook is we have so many friends, so many friends and we do not talk to them on a regular basis, we are not we are not very much close to them, but we always open a news feed and we are always interested in looking what is happening in their lives and this kind of a tie is termed as passive engagement. So, we do not talk to them regularly, but occasionally we look at what is happening in their life in a news feed and probably then we follow it up.

The last incredibly beautiful concept and personally my best is that of clustering coefficient. I hope you remember what clustering coefficient is.

(Refer Slide Time: 02:49)



So, it is mainly what fraction of my friends are friends with each other. So, it kind of indicates the amount of the level of bounding between my friends and we have seen that if the clustering coefficient is very less very less of my friends know each other I am more prone to commit suicide.

(Refer Slide Time: 03:10)



But then there are people like Ramya we talked about who have a very less clustering coefficient, but they make use of this clustering coefficient to flourish their business.

(Refer Slide Time: 03:26)



So, how should our world look like was the next question, how should our social networks look like - should everybody here has a very high clustering coefficient, so that the world is united or we need some people like Ramya who kind of act as weak ties connecting these different worlds, so that there kind of immergence a competition between the two. So, which is the best should everything be united or there should be different worlds connected with weak ties and we do not know, it is an open question what should happen this one or this one or a nice combination something in between both of these.

(Refer Slide Time: 04:03)



Next in the league is coming an interesting chapter on homophily. So, you might find Homophily to be a quite a technical term, but in simple words Homophily simply means like a treks like birds of a feather flocked together, that is mainly if I am fat and you are fat we tend to go together, we tend to becomes friends with each other. It might appear to you as a silly idea or stupid idea and realistic, but in the next chapter we will look at how it is true and how it is a very important component in our life.

The second interesting concept we will be talking is about social influence. Influence we know what a social influence and it is again an interesting concept which says that beware of your fat friends.

(Refer Slide Time: 04:52)



Probably if you are hanging out with that fat guy you also tend to gain weight over a period. So, this chapter kind of reinforces our old parental advice watch your company. So, I will not trivial many of the secrets here you go head and watch week 4.