Social Networks
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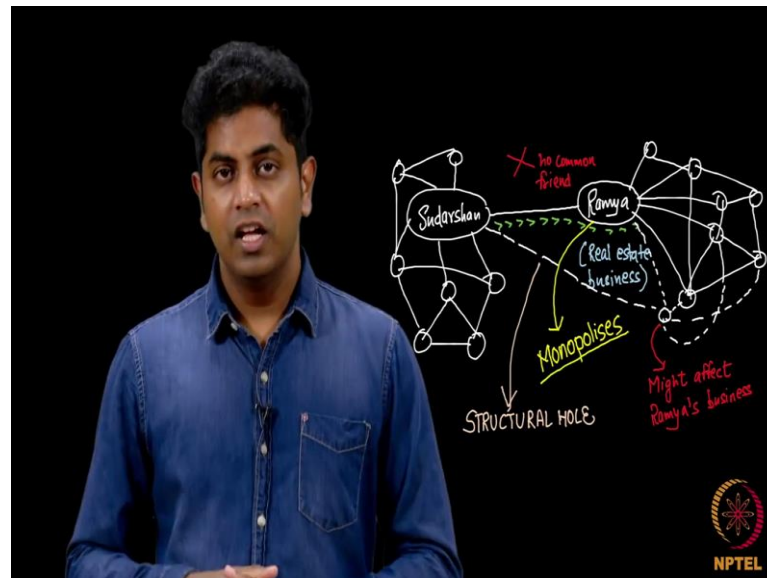**Indian Institute of Technology, Ropar**

Lecture – 33
Strong and Weak Relationships
Structural Holes

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Assume I have 2 friends, one by name Chethan, the other one by name Ramya, with Chethan I have high embeddedness, he is my colleague, we are very good friends, we have a lot of common friends. As I told you common friends means more trust; it is actually the other way round by other way round I mean the definition is slightly reversed the miss trust is not there the definition of trust here is there cannot be mis trust, right. So, me and Chethan I am a lot of common friends. So, we cannot cheat each other right there is a high penalty we pay if we cheat each other.

So, high; the higher the embeddedness more is the trust that is what we saw in our previous lesson, now me and Ramya do not have any common friends, now is the dangerous a sort of yes it is to some extent as you know where the same old theory if you do not have any mutual friends it is fraught with the danger of me cheating that that person if we are into a business transaction or money transaction right it sort of intuitive not always true, but sort of intuitively it is mostly true will this be of any advantage that I know Ramya, but our relationship is not high on embeddedness we do not have any common friends me and Chethan have a lot of common friends me and Ramya do not have any common friends it can also be advantages why because imagine Ramya is into real world business.

Look at this graph Sudarshan that is me and Ramya are friends and look at the graph here Sudarshan's community is very different Ramya's community is very different. In fact, for suggestion to reach out to anyone that that side in that community he must go through Ramya and imagine Ramya is a real estate agent if I want to buy a house I should consult Ramya because she is the only one who is into real estate business I do not know anyone who is into real estate anyone else are probably on the other community and I should go through Ramya only if I want to contact them.

So, Ramya's sort of monopolizes here. So, for a fact that we have low embeddedness imagine we had a common friend may be that common friend is common because he is

slightly on the other community side you see here is a common friend a new node between me and Ramya and that fellow is also friends with people from the other community right may be through him I can reach some other real estate agent correct. So, the fact me and Ramya have zero embeddedness is a huge advantage to Ramya in a situation where she is going to harness this fact that I do not know anyone from the other side community.

This is very similar to Granovetter's weak ties theory. So, I she is a connection to me for the other world do you see what is called a whole here whole in this graph structure where a lot of people on this side they should if they want to contact someone from the other side they have to go through a long chain of path. In fact, Sudarshan has to go through Ramya to contact anyone any friend of Sudarshan as you can see should go through Sudarshan through Ramya to contact the other world Ramya holds a very strong position here this concept is called the structural holes there are structural holes in these friendship networks in real life transaction networks in business transactions.

We some people do not want come people from this side community to meet anyone from that side community Ramya here acts more like a broken she ensures that nobody from this side gets know anyone from that side because she will lose business in case anyone here gets know anyone that side.

So, high embeddedness in the context of personal friendship adds in trust even in the context of business ads in trust higher the embeddedness more the trust. So, the relationship benefits, but in such a situation a huge structural whole exist in the network structure and whenever there is an edge between a people like Sudarshan and Ramya, Ramya benefits from this; any transaction between Sudarshan and her simply because she monopolizes.