

**Social Networks**  
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**How to Go Viral on Web**  
**Lecture - 161**  
**Who are the right key nodes?**

So, we now know that these should be the key people which we should be infecting, but how do we identify this key people. Who are these key people we should infect, assume I give you a network as shown here.

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Can you look at this network and tell me which is the node here, which I should infect; so, that this meme which is travelling on this network which is rather diffusing on this network becomes viral, which should be the node here? And so, there are many many possible criteria which you can look at, is it the node which is having maximum number of friends, having the highest degree we say. Should it be that node which we should look at and attack or should it be a node which is structurally closer to all the nodes in the network. Closer in the sense, if you look at its distance from every other node in this network the distance is small.

So, it can quickly reach all the nodes in this network that is actually called close the centrality and we will be discussed in another lecture. But, just for the intuition it just

says that this node is closer to all other nodes in the network or should it be a node having high betweenness. Betweenness we have looked at before, tells you how good you are in connecting people.

So, if you look at this node, here if we have these two components and there is this node in between. So, it has a high betweenness because, for going from this component to the other component you need to go through this node. So, should it be this node which I should be infecting or there should be some other criteria. So, how shall I find such a node in a given network; so, that if I infected with an idea or with my internet meme perhaps my meme should become viral.