Propagation in Bipartite Graphs

Similar to what we discussed in unipartite networks, we can now also use the PageRank algorithm to propagate fraud in the network. Let's start from the network depicted here, in which two fraudulent companies are represented as circular red nodes. The two fraudulent companies propagate fraud to their resources. As a resource's fraud influence increases, its fraud score also increases. Here, the resources are colored according to the fraud influence that they receive: from green (representing no fraud influence), to yellow (for moderate), and red (for strong fraud influence). The resources then continue the propagation of fraud to their connected companies. In this network, you can see that company 2 receives a high amount of incoming fraud influence.

Social Network Analytics

Close