ROBERTO ANDRADE
Instituto de Física, UFBA

Título:
A model of indirect contagion based on a news similarity network

Resumo:

Our objective is to model indirect contagion among companies. We use pieces of news about companies to measure the similarities between them. We assume that two companies are similar if we may associate a story about one company with the story about another company and vice-versa. First, after statistically eliminating arbitrary similarities between companies, we introduce a network based on the news similarities. Second, we evaluate a vector of stationary probabilities associated with the process of contagion that takes place in the network and we use these pieces of information to define the notion of centrality. Third, we use this vector of stationary probabilities to build an associated graph that reveals the most important paths of information contagion. Finally, we build a model of indirect contagion and evaluate the size of the information avalanches that take place in the similarity network.