Generation And Analysis Of Trust Networks

Submitted by grigby1 on Wed, 12/02/2020 - 2:15pm

Abstract	Trust is known to be a key component in human social relationships. It is trust that defines human behavior with others to a large extent. Generative models have been extensively used in social networks study to simulate different characteristics and phenomena in social graphs. In this work, an attempt is made to understand how trust in social graphs can be combined with generative modeling techniques to generate trust-based social graphs. These generated social graphs are then compared with the original social graphs to evaluate how trust helps in generative modeling. Two well-known social network data sets i.e. the soc-Bitcoin and the wiki administrator network data sets are used in this work. Social graphs are generated from these data sets and then compared with the original graphs along with other standard generative modeling techniques to see how trust is a good component in this. Other Generative modeling techniques have been available for a while but this investigation with the real social graph data sets validate that trust can be an important factor in generative modeling.

URL	https://ieeexplore.ieee.org/document/8987287

clustering coefficient Computing Theory Generative Models graph theory Human behavior Human Factors human social relationships original graphs original social graphs pubcrawl social graph data sets social network social network data sets social networking (online) standard generative modeling techniques synthetic generation triad trust trust networks trust-based social graphs Trusted Computing wiki administrator network data sets