

# Social Network Studies from Computer Science's Perspective

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## Abstract

Quantitative studies of social networks have been carried out by anthropologists, sociologists, economists, physicists, and mathematicians for a long time. However, the recent advent of the Internet and the advances of computing technology have made computer scientists especially well equipped to study social networks at the largest scale. What, then, do computer scientists talk about when they talk about social networks?

This paper tries to provide a big picture of social network research done by the computer science community. We classify their efforts into three broad categories:

- *structure*, where mathematical properties of different social networks are measured,
- *process*, where changes in network structure or flow of information are modeled, and
- *design*, where tools that use massive amount of data in online social networks to monitor/predict social changes are developed.

We also examine in details two recent research papers on Twitter, a popular social network based on micro-blogging. We do so to give the reader particular examples of questions computer scientists like to answer and the methodology employed to answer them. Lastly, we open some research questions on online social networks that, the author thinks, are interesting and/or are relevant to the upcoming efforts on Thai "online studies."