

Module 1: Introduction Lab

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Goals for Module 1: Introduction Lab

~Participants will explore several concepts through hands-on training to increase familiarity with the logic of social network analysis.

Six Degrees of Separation

One of the network ideas presented in Module 1 was the idea of “six degrees of separation.” This theory states that everyone can be connected to everyone else in six steps or less, which is also referred to as the “small world” phenomenon. Twenty years ago, this network theory generated a game called The Six Degrees of Kevin Bacon that was developed by three college students. The idea of the game is that any actor can be linked to Kevin Bacon through less than six Hollywood roles, and each actor has a Bacon Number identifying the number of steps to Kevin Bacon. The challenge of the game is to try to score a Bacon Number greater than 6 (though greater than 4 is quite challenging). Can you think of any actors who might be connected to Kevin Bacon by more than 6 degrees of separation?

Google offers a search feature that plays the Six Degrees of Kevin Bacon game. To play, type the search term “bacon number” before or after any actor’s name in a regular Google search box. The results will show the films that connect the actor to Kevin Bacon, which are supposedly always less than six. The Kevin Bacon game is not limited to only living actors; historical movies are also included in the 6 degrees. Athletes, musicians, and presidents also work with the Six Degrees of Kevin Bacon game.

Woody Guthrie's Bacon number is 3

Woody Guthrie and Bob Dylan appeared in [Down the Tracks: The Music That Influenced Bob Dylan](#).

Bob Dylan and Chris Penn appeared in [Masked and Anonymous](#).

Chris Penn and Kevin Bacon appeared in [Footloose](#).

The Strength of Weak Ties

One famous study in social networks is “the strength of weak ties” by sociologist Mark Granovetter. Granovetter’s research found that job seekers were more likely to find jobs through friends of their friends (a.k.a. weak ties) rather than through their friends or their direct ties. The idea is that new information is available through people who act as bridges, and that information becomes redundant among close personal contacts. The publisher W.W. Norton & Company, Inc. hosts a Norton Sociology YouTube channel and has a video that animates Granovetter’s strength of weak ties argument.

Watch the 2-minute Norton video using this link:

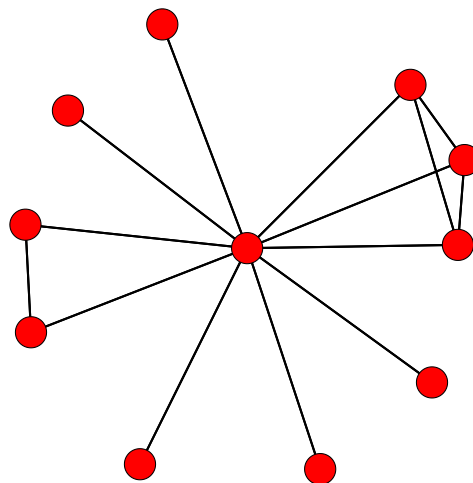
<https://www.youtube.com/watch?v=-Bm93gN1zJg>

Drawing a Personal Network

Hopefully after seeing the many examples of networks, you are thinking about your own social networks. It is useful practice to draw our own social networks because it forces us to think about how to bound a group, what is the meaning of a tie, what are the possible routes of connections within our networks.

On a piece of paper list the names of your top 10 friends. (More than 10 is fine but will require more time.) On a second piece of paper, draw a node for yourself and then draw 10 nodes around your node to represent each of your friends. Connect each friend node to your node to represent your friendship ties. Now fill in all of the friendship ties between your friends.

When you are done, think about the following questions: What sort of clustering do you see in your friendship network (e.g., work friendships, childhood friendships). Is your friendship network densely connected or sparsely connected? If you removed yourself from the network, how many separate components would there be? How many of these components would be isolates?



Review of Module 1: Introduction Lab

The three activities in the Module 1: Introduction Lab familiarized participants with ways of thinking about the world through social network concepts such as:

“six degrees of separation”

“the strength of weak ties”

friendship networks

This theoretical introduction to social networks is important because we often focus on individuals and individual-level motives and explanations for behaviors rather than seeing how that individual is situated within larger social networks. It is important to think about relational perspectives and how they are different than individual perspectives.

If you are proceeding on the NAVCAP software track, you should now complete the NAVCAP section of the Module 1 Lab. If you are proceeding on the advanced RStudio software track for, you should now complete the RStudio section of the Module 1 Lab. Each of these labs will walk participants through software installation.