



Connecting the Dots: Social Network Analysis and its Application to Insurance

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Agenda

Introduction / Background

Definitions and SNA Basics

Interpreting Networks

Network Metrics

Case Studies

Insurance Applications

Tools and Resources

Q&A

Background

Opening Thoughts

“Only Connect” – E.M. Forster

“It’s not what you know, it’s whom you know” – ubiquitous



The Development of Social Network Analysis

- Social Network Analysis arose in the social sciences
 - Sociology, psychology, anthropology
 - Study of connections started in the mid-1800's
 - More formal structure to field added in 1920's-1930's
 - Jacob Moreno invents the "sociogram" in 1930's
 - now known as network maps
 - Development of SNA metrics as early as 1950's
 - Stanley Milgram (1960's) – six degrees of separation analysis
 - 1970's – different fields begin to merge into one

Social Network Analysis Today

- **Culture:** Social networking analysis has gained prominence in past few years
 - Social media has gone mainstream... and changed our culture



- **Analytics:** SNA packages have proliferated
 - Many packages are free or cheap
 - Readily calculate key SNA statistics
 - Allow graphing of hundreds or thousands (or millions!) of nodes
 - Recent improvements in network layouts and clustering algorithms
 - Data collection from expensive surveys to automatic database logging

What is Social Network Analysis?

- Social network analysis (SNA) is the mapping and measurement of relationships and flows between people, groups, organizations or other actors
- Examples:
 - Groups of friends (analysis of playground relations – an early application)
 - Business organizations, connections
 - Linked websites
 - Academic and artistic collaborations
 - Social network web links
 - Political organizations
- Some Key Considerations
 - SNA structural relations can be as important to understanding behavior as demographics and past behavior
 - Attitudes, beliefs, habits can be affected by mechanisms represented by SNA
 - Structural relations are dynamic in nature

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