A Review of Social Network Analysis in Program Evaluation

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The fall, 2005, *New Directions for Evaluation* journal included nine articles dedicated to social network analysis (SNA) in Program Evaluation. Four of the nine articles in the journal explored the academics of SNA methodology, while the other five articles presented examples of quite diverse applications of SNA in program evaluation. This review will outline the major arguments for the use of SNA, applications of SNA in program evaluation, and a critique of the SNA content contained in this journal.

Major Arguments for the Use of Social Network Analysis

Social network analysis explores relationships within a social context. It not only ascertains if there is a relationship between components, but strength (or value of) those relationships. It is set apart from other evaluation methodologies due to its focus on the "social context and behavior of relationships among actors (that is, subjects or objects under investigation) rather than on the rational choices individual actors make" (Durland & Fredericks, 2005, p. 9). In program evaluation, this evaluation methodology is normally used to explore program capacity as it focuses on complexity and systems through the study of component parts and their interaction, which form the multifaceted whole. We have all seen traditional, formal structures (hierarchy models) that define how an organization *should* look; SNA attempts to present a picture of what is *really* happening within the organization, which may or may not agree with the formal structure. It does so in an effort to improve organizational effectiveness, through the examination of the informal structures of an organization such as, communication lines, teaming levels, and group culture. Understanding the informal structures of an organization can tell clients such information as where bottlenecks in communication are, if low connectivity exists, or who the *actual* leaders or experts are in the organization.

To better understand SNA, a simple example was outlined using a mentor program designed to keep kids out of gangs. Within this evaluation, a survey was given to kids, asking the children who their best friends were, and who they hung out with. This survey was given at the start of the program and periodically throughout the project. If the SNA analysis of the data showed that the children were creating stronger connections, or friendships, with kids within the program, and weaker ties with children on the street, this measure could be seen as an indicator that the program should be considered a success.

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SNA data is analyzed using fairly complicated unique algorithms and is often reported by creating Sociograms (graphic depictions of data). SNA also utilizes terms such as: dyad, clique, density, centralization, reachability, connectedness, asymmetry, balance, centrality, homophily, isolate, gatekeeper, bridge, and cutpoint. Due to the complexity of SNA, the authors recommend that a novice SNA evaluator work with an experienced SNA evaluator on the first few SNA evaluations.

Applications of SNA in Program Evaluation

While this reader has no concrete personal experience with SNA as an evaluation methodology, it was intriguing to think about the possibilities that it could present. As a believer in the importance of understanding the interconnectedness of component parts to the whole, and how the separation of those component parts can present difficulties in evaluation, just through the mere act of segregation, the attraction of complexity theories, which attempt to describe how a change in one component part affects the other components, as well as the whole, is strong. I especially see possibilities for the use of SNA in the evaluation of intervention programs that promote participant lifestyle change, such as the program for anti-gang participation outlined above, or programs such as Alcoholics Anonymous, or Weight Watchers; programs in which strong social support and social networks are known integral components to participant success.

Critique of the Social Network Analysis Content of the *New Directions* Journal

The criteria used to critique the content of this journal are as follows:

1. Layout of articles

> The content of the journal was very well laid out. The articles were sequenced nicely, beginning with an introduction to SNA; including how and why SNA is appropriate for evaluation practice. Then a brief history of the development of the methodology was presented, including key concepts. This was followed by an article outlining basic measures and concepts, which then led into five articles on diverse applications of SNA. The final chapter concluded with an article on the editors' view of the future of SNA in the field of evaluation.

2. Writing style

> The writing style was professional, yet engaging. The text was at times a bit technical, but when the content dictated the use of terms specific to the subject, the terms were explained appropriately within the text.

3. Applicability to the field of evaluation

> The editors and authors were very careful to outline, explain, and furnish examples of the applicability of this methodology to the field of evaluation.

4. Interesting and innovative

> Theories on complexity and systems thinking are very relevant to today's organizations. This journal is very timely as well as highly interesting and innovative.

5. Understandability

As outlined above, the content of this issue of *New Directions for Evaluation* at times proved to be difficult reading due to the nature of the topic, and the overview of how to analyze SNA data might discourage some from trying the process due to its purported complexity. Also, while a few of the graphic representations really served to confuse, they could be viewed under a different light as good demonstrations of the intricacies of the complex interrelationships being explored.

6. Quality of references

Six authors contributed to the chapters within the journal. All articles were well referenced and the reader is given a plethora of available avenues to enable pursuit of further information.

As for final recommendations for future readers, many disclaimers were made by the editors that the issue was not meant as a primer on the use of SNA, but instead as an introduction to the concept, and I feel that it did exactly that. The authors were able to simplify a very complex process enough to get basic knowledge across, while still being able to peak the reader's interest into further exploration of the methodology. I would highly recommend this journal to future readers.

References

Durland, M. M., & Fredericks, K. A. (Eds.). (2005). *New directions for evaluation: Social network analysis in program evaluation* (Vol. 107). New York, NY: Jossey-Bass.