ATE Evaluator Network – Preliminary Social Network Analysis Results for Year 2

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Background

EvaluATE's efforts to increase the professional exchanges among ATE evaluators include providing opportunities for ATE evaluators to meet each other through organized events such as the ATE evaluation reception at the annual ATE PI conference and by providing a means for connecting and communicating with other ATE evaluators through the development and promotion of a dedicated Slack channel.

The Rucks Group, the external evaluator for the project, has been working with EvaluATE to develop a strategy for exploring the network of connections among ATE evaluators and assessing changes in the network over time using social network analysis (SNA) methodology. This report provides initial information about the network in Years 1 and 2 of the project in terms of the number of connections among ATE evaluators, how frequently ATE evaluators connected with each other on evaluation-related matters, and what types of interactions they had.

Survey and Data Collection for the Social Network Analysis

As in spring of 2019, a set of questions to capture the information needed for the SNA was added to EvaluATE's spring 2020 survey of ATE evaluators. The questions were designed to determine the number of connections among ATE evaluators as well as the characteristics of those connections in terms of interaction frequency and types. Survey respondents were first presented with seven sequential alphabetized lists of 20 to 30 ATE evaluators – for a total of 145 listed ATE evaluators – and asked to select each ATE evaluator with whom they had at least one evaluation-related interaction with in the past 12 months. Examples of evaluation interactions included the following:

- Providing evaluation guidance, resources, or information.
- Receiving evaluation guidance, resources, or information.
- Working together on an evaluation.
- Collaborating on educational or outreach activities (e.g., article, presentation, committee).

Informal types of interactions, such as conversations at conferences, are certainly important for initiating and sustaining connections. But people's attempts to recall connections based solely on a casual conversation or two would be both burdensome and susceptible to recall error. Consequently, respondents were deliberately directed to consider only those connections that included more substantive types of evaluation-related interactions.

After identifying each of their ATE evaluator connections, respondents were then asked to indicate how often they had interacted with that individual on evaluation-related matters (i.e., 1-2 times, 3-10, or more than 10) and then finally asked to select or identify the types of interactions they had. While respondents were provided with the four types of interactions as previously described (e.g., providing evaluation guidance, resources, or information, etc.), they also had the option to select "Other" and to describe the type of interaction. An abbreviated copy of the SNA survey items is provided in Appendix A.

ATE Evaluator Respondents

2019

61 (42%) of 147 evaluators completed the SNA survey. They reported a total of **422** relational ties and an average of **6.9.**

A total of 115 evaluators are represented in the network

61 – Had completed the SNA survey

35 – Didn't complete the SNA survey but were selected by others as a connection

19 – Were not included in the SNA survey but were written in as an additional connection

2020

88 evaluators completed the SNA survey. They reported a total of **516** relational ties and an average of **5.9.**

A total of 148 evaluators are represented in the network

88 – Had completed the SNA survey

45 – Didn't complete the SNA survey but were selected by others as a connection

16 – Were not included in the SNA survey but were written in as an additional connection

Frequency & Types of Evaluation-related Interactions in 2019 and 2020

Number of interactions per connection		
	2019	**2020**
1-2 times	52%	46%
3-10 times	29%	32%
More than 10 times	19%	22%

Types of interactions		
	2019	**2020**
RECEIVED guidance, resources, or information from this person	48%	47%
PROVIDED guidance, resources, or information to this person	36%	31%
Collaborated on an educational or outreach activity	28%	33%
Worked together on an evaluation	29%	26%
Other	10%	7%

Connections established at the ATE PI Conference

The 2019 and 2020 ATE evaluator surveys also included a question to determine if any of the respondents' reported connections had been first made at the reception hosted by EvaluATE at the ATE PI Conference.

2019 SNA Survey

21 attended the evaluator reception at the 2018 PI conference
17 of the reported connections were first made at this event

2020 SNA Survey

28 attended the evaluator reception at the 2019 PI conference
15 of the reported connections were first made at this event

Visual and Quantitative Description of the Network using SNA

A key strength of SNA as a method for evaluating networks is the ability to generate visualizations of those networks that can provide rich and useful information about the network as a whole and the position of individuals within that network.

Each dot in the figures on the next page represent an individual (or "node" in SNA terminology) in the network.

- The larger and darker the dot, the more connections that individual has.

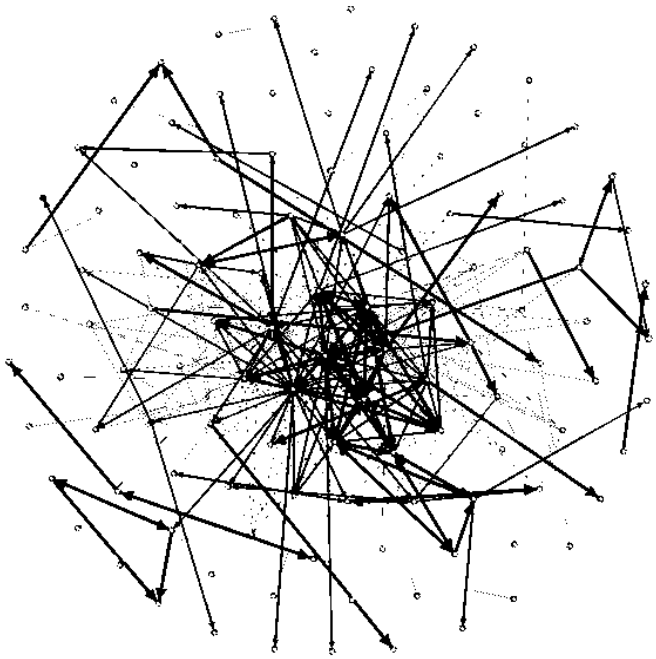
Each line represents a connection (or "edge" in SNA terminology) between two individuals.

- The darker the line, the more interactions reported for that connection over the prior year.
- An arrow indicates that one individual identified the other as a connection. Connections with arrows on each end indicate that each had identified the other as a connection.

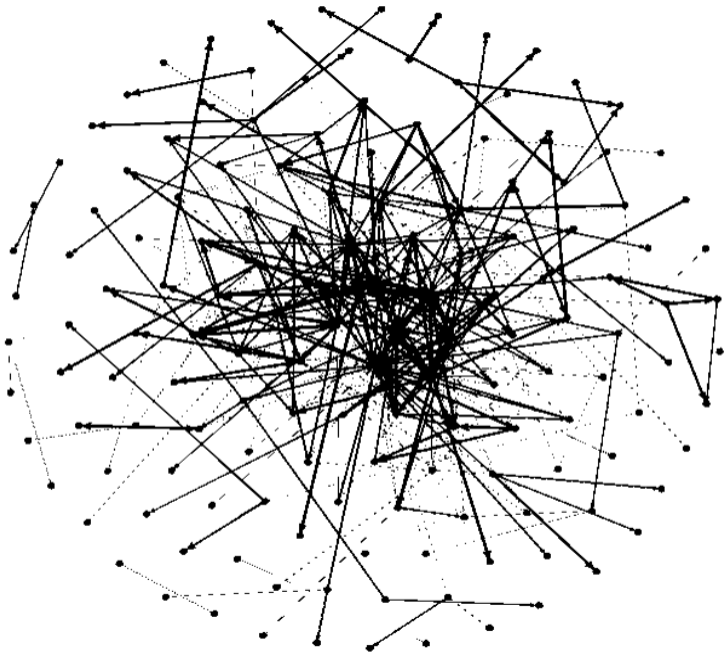
Visualization of the ATE Evaluator Network

The network graphs below illustrate the increase in the number of individuals represented in the network from 2019 to 2020. The graphs also show that the network is characterized by a relatively group of individuals who are highly connected with each other and others. However, there also appears to be an increase in the number of less-connected individuals who are connecting with each other.

2019



2020



Quantitative Descriptive SNA Measures

In addition to generating powerful visual depictions of networks, SNA can also be used to quantitatively describe the networks at a given point and then tracked to monitor changes over time. For example, SNA provides measures for analyzing the extent to which the individuals within a network are interconnected (i.e., density) and also (i.e., centralization). These quantitative measures in relation to the information gathered from ATE evaluators are described below.

Density

The simplest SNA measure to describe the connectedness at the network level is density, which measures the extent to which individuals in a network are interconnected. It is calculated as the total number of paired connections or ties in a network divided by the maximum number of ties possible.

There was a slight decrease in the density of the network. This might be explained by the apparent increase in the number of less-connected individuals who are connecting with each other.

Centralization

Degree centrality is a common individual-level measure used in SNA to denote how influential a given individual is within the network and based purely on the number of connections associated with the individual. Centralization, however, is a network-level measure that provides an indication of how centralized a network is. In a highly decentralized network, most individuals within the group have similar numbers of connections while – in a highly centralized network – most connections are held by a small minority of individuals. Centralization ranges from 0 (i.e., all individuals have the same number of ties to others) to 1 (i.e., all ties are held by a single individual in the network).

the network is characterized by a relatively few number of individuals who are highly connected within the network

Initial Thoughts

This report provides a description of the ATE Evaluator Network in 2019 and 2020. The ATE Evaluator Network continues to be characterized by a relatively small number of individuals who are highly connected or central within the network. However, the initial data appears to show an increase in the number of individuals who have developed a few connections within the network. It is hoped that EvaluATE's efforts to provide more opportunities for evaluators to connect will also lead to an increase in the interconnectedness among those members. As a consequence, ATE evaluators will develop a broader range of individuals to whom they can go for evaluation-related guidance, support, and collaboration.

Appendix A – Social Network Analysis Questions from the ATE Evaluator Survey (abbreviated version)

You will be presented with 7 alphabetized lists of ATE evaluators. Each list will contain 20 to 30 names. This may sound like a lot, but it should take no more than 5 minutes to complete this part of the survey. Please select the name of each evaluator with whom you have had at least one evaluation-related interaction in the past 12 months.

Evaluation-related interactions could include any of the following: Providing or receiving evaluation guidance, resources, or information; Working together on an evaluation; Collaborating on educational or outreach activities (e.g., article, presentation, committee).

Q1. I have had at least one evaluation-related interaction with each of the following individuals in the last 12 months.

☐ Name 1 ☐ Name 2 ☐ Name 3

Q2. Can you think of any other ATE evaluators with whom you have had at least one evaluation-related interaction in the last 12 months?

☐ Yes ☐ No

Display this question if Q2 = Yes

Q3. Please enter the me(s). _____

Q4. What types of evaluation-related interactions have you had with each person in the last 12 months? (Select all that apply)

Carry forward names selected in Q2 and write-ins from Q3

	PROVIDED guidance, resources, or information	RECEIVED guidance, resources, or information	Worked together on an evaluation	Collaborated on an educational or outreach activity	Other
Name 1	☐	☐	☐	☐	☐
Name 2	☐	☐	☐	☐	☐
Name 3	☐	☐	☐	☐	☐
Name (write-in)	☐	☐	☐	☐	☐

Q5. About how often have you had evaluation-related interactions with each person in the last 12 months?

Carry forward names selected in Q2 and write-ins from Q3

	1 – 2 times	3 -10 times	More than 10 times
Name 1	☐	☐	☐
Name 2	☐	☐	☐
Name (write-in)	☐	☐	☐