Understanding Growth of a Network from a few people to thousands over a period of years.

The Tutor/Mentor Connection (T/MC) network has grown from seven volunteers in Chicago 1992 to reach over 1 million* people throughout the world by 2012. Imagine how much broader the network could be if hundreds of individuals and organizations applied the ideas in this essay.

*based on count of web site visitors from 1998-2012

Contact the Tutor/Mentor Institute, LLC and let us help you apply these ideas. tutormentor2@earthlink.net and http://www.twitter.com/tutormentorteam
LOCAL
We have operated a single tutor/mentor program in one neighborhood of Chicago since 1975. More than 4500 inner city youth have been connected to over 5000 volunteers in one-on-one and group mentoring.

GLOBAL
The T/MC* was created in 1993 to draw visibility, dollars, volunteers, and training to tutor/mentor program in every part of the city and suburbs of Chicago.

*the T/MC became part of Tutor/Mentor Institute, LLC in July 2011
Through the Tutor/Mentor Connection (T/MC)* we seek to draw needed resources to tutor/mentor programs in every high poverty neighborhood of the Chicago region.

This city needs leaders in every sector who take this role, not one or two high profile people.

*Tutor/Mentor Connection became part of Tutor/Mentor Institute, LLC in July 2011. The mission and strategies created since 1992 have not changed. Only the tax structure if different. Visit [http://www.tutormentorexchange.net](http://www.tutormentorexchange.net) and [www.tutormentorconnection.org](http://www.tutormentorconnection.org) to learn more.
Network Analysis can help us understand who is helping and who can help connect us to others who might also take this role.

BY ENLISTING MANY PEOPLE TO SHARE ‘NETWORK BUILDING’ ROLES WE CAN BUILD THE DAILY VISIBILITY NEEDED TO DRAW A LARGER FLOW OF NEEDED RESOURCES TO ALL OF THE PROGRAMS THAT OPERATE IN A BIG CITY LIKE CHICAGO.
Social Network Analysis (SNA) enables us to map and understand networks. Understanding how networks grow over a period of years is a goal of the Tutor/Mentor Institute. Getting more people involved in a cause ensures greater chances of success in overcoming a problem or developing an opportunity.

Read this Network Growth Essay at [http://tinyurl.com/TMI-Network-growth](http://tinyurl.com/TMI-Network-growth)
Visit [http://www.tutormentorexchange.net/sna](http://www.tutormentorexchange.net/sna) to learn more about this work.
On the following pages you can see a demonstration of network mapping.
Maps can help focus many in a community on a common goal.
Since 1993 T/MC has been piloting uses of Geographic Information Systems (GIS) to map locations of non-school tutor/mentor programs in different parts of the city and to show stakeholders who share geographic in the same zip code who should be working together to help kids move through school and into jobs.

Social Network Analysis (SNA)
Since 2000 T/MC has been looking at a different type of maps, which are visualizations of social networks. In 1999 Valdis Krebs of Orgnet.com donated software and provided a training so that interns working with T/MC could begin to do work in this area. A workspace for this project is open for others to join.

While one of the volunteers with this group was able to begin to map participation in the May and November Tutor/Mentor networking conferences, inconsistent time commitments and lack of funding limited work that could be done. See conference maps at

http://www.tutormentorprogramlocator.net

http://tutormentorconnection.ning.com/group/technologyinternswithtutormentorconnection

Example of mapping growth of network over period of five years. In Jan-Feb 2011 an intern with T/MC used Gephi.com to map growth of the membership of [http://tutormentorconnection.ning.com](http://tutormentorconnection.ning.com) from 2007 - 2012.

This shows three people who were part of the group in 2007.

By the end of 2010 the network included 321 people. Using Gephi.com we could see how the people were and we can see which members had built their own networks within the group.

Read this full report at [http://tinyurl.com/TMI-SNA-2012-Park](http://tinyurl.com/TMI-SNA-2012-Park)
As part of a SNA class on Coursera.com, Dan Bassill, president of Tutor/Mentor Institute, LLC created this map showing 871 people in his Facebook network.

This map shows six major clusters of friends.
Friend Graph
11-30-2012
This is another view of my Facebook network, using FriendGraph.

Note that the same groupings of friends appear as in the previous analysis. The color codes for each group enable you to see how some people mix in other groups.
One group consists of members of the Acacia Fraternity from Illinois Wesleyan University.

You can see that each has many ties to others in the group, but not all are connected to every other member.

Only some connect to other friends of Dan’s on Facebook.
Color coding shows ties between members, such as those who all attended IWU in the 1960s.

Individual maps like the one above could be created for each node on the map, helping each person better understand how he is connected to others from IWU, and others who share Dan's passion for helping inner city youth.
A second cluster was Dan’s family network. Note how those on the East cost are not directly connected to the Chicago in-laws. Note how Dan’s son, Jacob, is a connecting point between the larger groupings.

Also note how few of Dan’s family members are connected to his other groups.

In the Gephi.com workspace the nodes on the map can be moved around to build more clarity and better understanding from the visualization.
One large group in Dan’s network includes social innovators who first connected to each other in 2005 and 2006 on the Omidyar.net forum. After that closed many began to network on Facebook. Many of these people are well connected to each other and have their own extensive networks on Facebook. Each could be doing a similar analysis of their own network in exactly the same way as this.
A second large group consists of people who Dan has connected with via social entrepreneur groups on Facebook. A large number of these people are international, based in Europe, Asia, South America, Australia and Africa.

There is a lot of interaction between the people in this group and the Omidyar.net group.

As relationships grow on Facebook they lead to further interactions via Skype, Google Hangouts, etc., leading to deeper working relationships.
Another group of friends in Dan’s Network consist of people working for social benefit in the Chicago region. Some are non profit leaders. Some lead for profit ventures. Note how Sheri Gibson of the SEA-Chicago group is a connecting link between Dan’s international friends and his Chicago friends.
This cluster consists mostly of adults who Dan first met between 1975 and 2011 when they were K-12 students in the tutoring program at Montgomery Ward and the Cabrini Connections program.

This shows that many have ties that connect them to others* in Dan’s network on Facebook.

*Note: scattered through all of this map of Dan’s network are more student and volunteer alumni who have been part of the tutoring programs since 1973. More work needs to be done to understand why some are clustered in this group and others spread throughout the map.
These two maps show how staff members from the 1990s are still connected to youth they first met 10 to 20 years ago.
The map on the left shows how a student who was active from 2001-2007 and who since has graduated from the University of Iowa is still connected to the two volunteers who he met at Cabrini Connections as well as others from Dan’s Facebook network. The map on the right shows how El Da’Sheon Nix, who was the program’s Administrative Coordinator from 2008-2011, is still connected to many teens/alumni and adult volunteers who he met through the program.
While some of Dan’s Facebook friends are also friends on Linked in, most are different. Thus, understanding Dan’s network and connecting people within the network with each other, would require some tool that captured data from multiple platforms.

This review was created by a different tool than Gephi. It shows clusters of people with something in common, but does not offer features of Gephi that enable groups to be more easily identified.
Analysis. What does this mean?

This is only a quick look at Dan’s Facebook network. Much more needs to be done to understand how to use social network analysis tools like Gephi.com. Through newsletters, web sites, etc. Dan has been reaching out and connecting to thousands of people every year since 1993. An network analysis tool could help Dan better understand his network and do more to connect the different groups with each other so more people were helping each other solve life issues and societal goals.

New evaluation and understanding of long-term impact of mentoring?

The maps on the previous page show that connections between youth and adults that were paid for by donor grants in previous years are still in place many years after the donor no longer is funding the program.

Thus, if many tutor/mentor programs were mapping networks and showing how youth and volunteers stay connected in future years could we find a way to amortize the money invested in a single year to show that it has benefit for many years into the future? Can we demonstrate an impact for mentoring that does not include academic or social emotional measures or random group evaluations?

Using SNA we could demonstrate network growth of youth AND volunteers, showing benefits to both…and benefits to employers.
There are countless ways to look at this information and to build new forms of understanding from it.
As more people begin to use network analysis to strategically connect with others who share the same social mission and who have talent or connections that can enhance the work being done each member, this information will become of much greater value in building networks of people working together to solve complex social and environmental problems.
My goal is that a growing number of people in my network begin to share the T/MC vision with people in their own network, and begin to mobilize resources needed to support tutor/mentor programs in EVERY part of Chicago.

This strategy can apply in any city in the world! Can you own it?
If you would like to volunteer time or provide dollars to support social network analysis and the network building of the Tutor/Mentor Connection and Tutor/Mentor Institute, LLC, please contact us.

Email: tutormentor2@earthlink.net
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