

What Can Social Network Analysis Do for Management Consulting?

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There are two general ways in which social network analysis can facilitate management consulting. The first is by making visible and tangible those elements of the organizational context that are normally regarded as invisible and intangible. The second is by utilizing existing networks to implement change. We consider each of these in turn.

Making the invisible visible

While formal reporting relations, as shown in an organizational chart, are important and structure certain kinds of communications, how work is actually accomplished usually has more to do with informal relationships and interactions among employees, particularly in knowledge-based organizations and organizations that have followed recent trends toward flatter more flexible structures.

Yet informal relations are largely invisible. Employees are aware of their own relationships and a few others, but they don't have a coherent overview of the social structure of the organization. Research has shown that unit managers who know more about the networks of the people under them have more profitable units (Krackhardt, 1987), but the research also shows that managers vary widely in the accuracy of their network perceptions, and even the best are not very good (Krackhardt, 1990; Casciaro 1998). In consulting engagements it is a common experience to put up a diagram of the social network of the group and hear an audible gasp as people apprehend the structure of the group – and the source of their problems.

For example, as reported in Cross, Borgatti and Parker (2002), a virtual group within a global consulting company was not performing to expectations. The practice was intended to provide thought leadership and specialized support to the organization's consultants in the area of knowledge management. The objective was to provide clients with integrated knowledge

management solutions that would differentiate it from competitors focusing narrowly on either technical or organizational solutions, but not both. A network analysis of information sharing relations within the group showed that the group had devolved into a “bow tie” structure as shown in Figure 1. The group was divided into subgroups based on their expertise: one subgroup consisted of the “techie” who had expertise in software solutions, and the other subgroup consisted of the “softies” who specialized in cultural and structural interventions. In the middle was an unusually talented individual who was expert in both areas. That the link between the groups was so talented was unfortunate because when one subgroup had opportunities to do a client project that required the skills of the other subgroup, he would end up filling that role. Consequently, the two subgroups rarely had occasion to work with each other. As a result of the network analysis, a number of changes were introduced, including the establishment of cross-selling goals, cross-staffing internal projects, and new communication forums so that individuals were more aware of the activities and talents of all members of the group. And the central person was moved to another group.

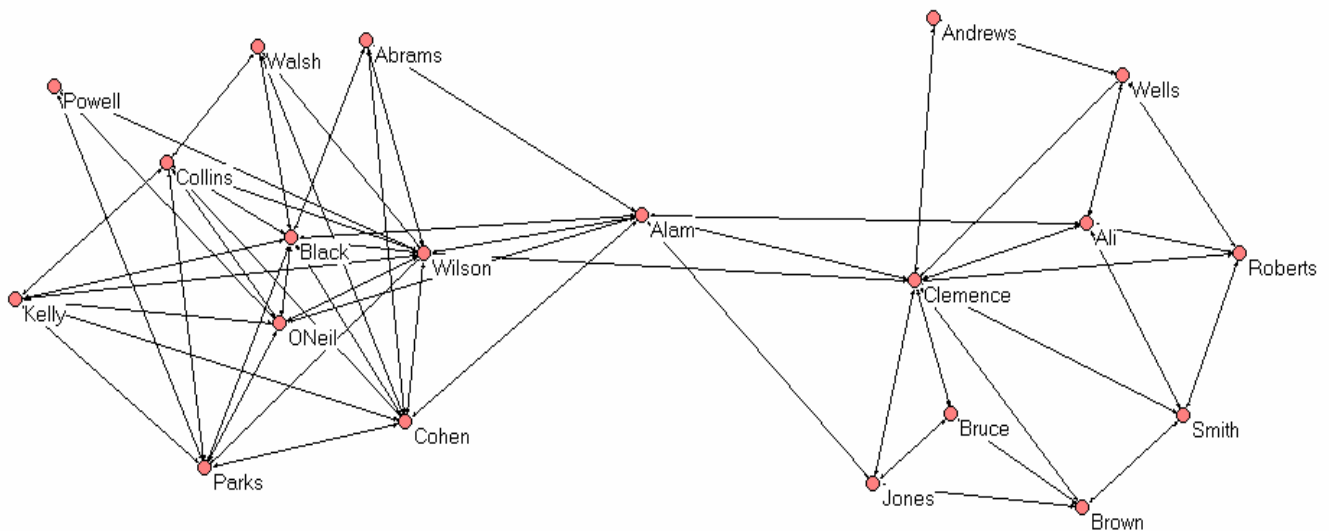


Figure 1. Bowtie structure.

In this case, the ability to make the structure of knowledge flows visible made it possible to diagnose the problem and to suggest relevant changes. This will be the case when the problem is, at heart, a network problem. And in fact, it is often the case that organizational problems come down to issues of communication or trust or other social relations, which is to say social networks. Thus it is very appropriate to use network analysis to diagnose these problems. A

classic example is the organizational merger. When organizations merge, the most obvious issue to solve is the combining of operations – the formal structure. Less obvious initially but well-recognized today is that there is also the issue of merging distinct corporate cultures. But organizational cultures are created, maintained and shared through interactions between people – through networks. Just after the merger, the new organization is divided into two virtually separate social networks. If the social networks of the organization remain separate, so will their cultures. Thus, early on efforts should be directed toward combining the networks. Then, to track the progress of the merger, snapshots of the organization-wide network should be taken at different points in time to see how connected the networks are where holes remain.

However, it is important to point out that even when the root issue is not social networks, it is useful to map the networks because they form the context within which any change effort will be executed. For example, Figure 2 shows the network of collaborations among 1000 scientists in a large research organization. The diagram shows a division into two, basic groups (top and bottom of diagram), which turn out to correspond roughly to military vs. health related work. Change efforts in this organization need to be aware that there are really two organizations here that may need to be approached differently, with different incentives and threats.

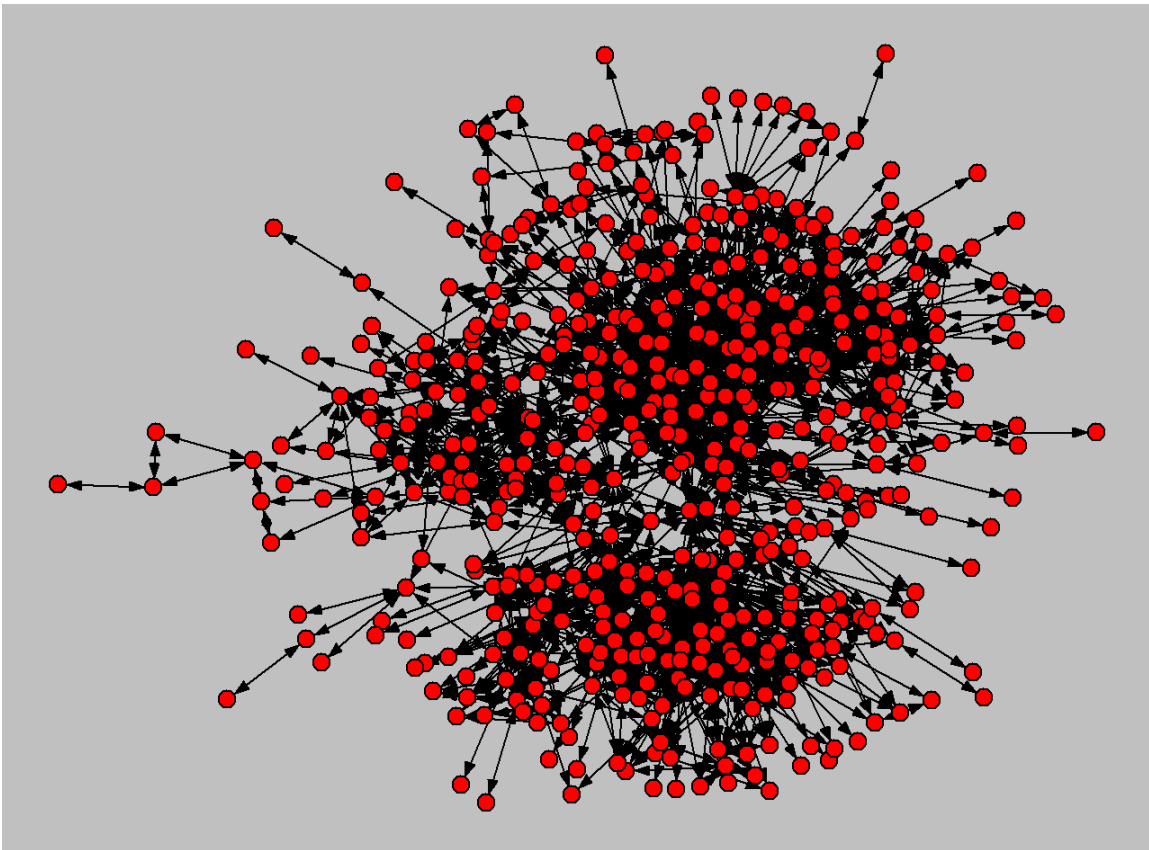


Figure 2. Collaboration among 1000+ scientists at large research organization

Managing Through Networks

In the case of the global consulting firm described earlier, once the network diagram was constructed, the leader of the group arranged a meeting in which all members were present. Then, with the prior permission of all, the diagram, with real names attached, was projected onto the wall, and the meeting opened up for discussion. The result was an immediate shared understanding of the situation and what needed to be done. But even more important was a will to do something about it. This is not unusual in our experience: being in the same room with your group and seeing a network diagram of your own structure, with names attached, can have a profound transformative effect on a group, raising motivation levels to solve problems and allowing the group to surface previously undiscussed issues.

In a way, the above is an example of using network analysis to actually implement a change, rather than simply contribute to our understanding of a situation. A clearer, if less dramatic,

example is provided by the hypothetical case of managing the merger between two erstwhile competitors. How to overcome negative attitudes held by each group about the other? This cannot be done by decree. For small groups, it can be done with individualized coaching, facilitated sessions in which members of each group learn to trust each other, and other interventions of this type. But for organizations of many thousands of individuals, this is clearly not practical. The network approach is to use network analysis to identify a manageable set of leaders (central nodes) in the informal networks of both groups. The intervention is then run with these thought leaders. If the intervention is successful in changing the attitudes of the managers, network theory would lead us to expect that they would consciously or unconsciously diffuse these attitudes to others.

This approach is particularly useful for introducing potentially frightening innovations which, if done by decree from above, could create rebellious rejection, but if introduced informally, like a virus, could avoid initial, thoughtless rejection and be evaluated on its merits. Once the innovation begins to take hold, it can then be pushed from above. For innovations with low “face appeal” – i.e., those whose benefits are not immediately obvious – it is useful to borrow a page from network or family therapy techniques in which interventions are run with natural groups (cliques in network parlance). Seeding an organization by placing innovations with scattered individuals throughout the organization can fail because each individual is surrounded by non-believers and is brow-beaten into re-embracing the conventional wisdom. By working with a natural group of related individuals, they can gain support from each other and resist the conventional wisdom.

Conclusions

Three key points merit summarization. First, sometimes the changes that need to be made in an organization are changes in the organizational networks themselves, and so network analysis is especially appropriate. Second, even when the changes do not have to do with the network, the network provides the context within which change will be implemented, and an understanding of the network will help to design the implementation plan. Third, sometimes it is useful to use network processes as the vehicle for implementing change.

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