

DEVELOPMENTS, IDEAS & UPDATES

Leadership in Virtual Teams

By Richard R. Reilly and Michael Ryan

Many large organizations are undergoing a profound shift from traditional hierarchical structures to networked systems of people, teams, and companies. Constraints of distance that once made widely distributed teaming difficult or impossible are now removed with communication technologies that allow instant text, voice and video interfaces. With distance removed as a barrier teams can become globally distributed with members from different organizations, different cultures and different functional backgrounds. The advantages of these virtual¹ and global² teams include reduced costs, greater accessibility to expertise, and more effective deployment of resources. Virtual teams provide the potential for significant gains but they also present new challenges for leadership where traditional models assume frequent face-to-face (FTF) interaction.

Research on virtual teams is in its early stages but our work has identified three important areas of inquiry: the application of social network analysis, research on what makes a team "virtual" and a new proposed model of leadership for virtual teams.

First, *Social Network Analysis* or SNA is a set of methodologies that maps the interactions and relationships between people, teams and organizations. SNA is ideally suited for helping us think about virtual teams and virtual organizations. We can quickly see who is interacting with whom, who is a central figure in a communication network and where gaps exist in the network. One type of gap that SNA can highlight is what SNA terms "structural holes." Structural holes are points where there are no connections between people or organizations or teams. Figure 1 shows the relationships in a virtual team that is made up of a number of different sub-teams. The sub-teams are all interconnected except for Team 4 – this is an example of a structural hole. Figure 1 also shows that there are structural holes between the team and organizational groups outside the boundary of the team: these groups include some man-

agement, functional and cultural groups. In global, virtual teams structural holes can occur frequently. For example, a team in which some of the members are employed by an outsourcing firm in another country with a very different firm culture can produce a structural hole. In order for the team to be effective the gap must be bridged – this is where leadership can make a difference.

A second area of inquiry has to do with the

to describe the psychological and emotional distance between team members. In addition to geographic and time zone differences, some of the factors that determine virtual distance include culture, organizational differences, degree of task interdependence, prior relationships, and social distance. Our research has shown that virtual distance is much more important in predicting outcomes than geographic distance. We have evidence that virtual distance is related to trust,

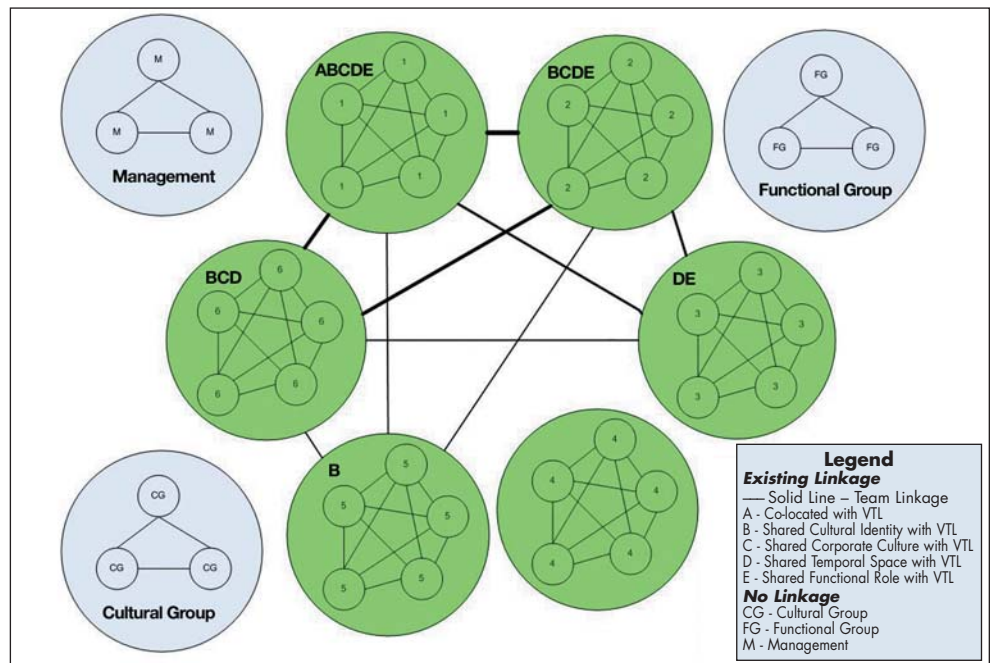


Figure 1. Virtual team with a structural hole

definition of virtual. It is important to recognize that "virtualness" is not a dichotomous variable but a continuum from completely virtual at one end to completely face-to-face (FTF) at the other. In fact, most teams today are a mix of virtual and FTF interaction. Even co-located teams will communicate by email and phone a certain percentage of the time. We have coined the term Virtual Distance™

innovation and project success, for example. One important feature of virtual distance is that it can be high in co-located teams or low in teams whose members are widely geographically separated. Imagine working with a friend that you have worked with before and know quite well – someone whose basic values are similar to your own. It won't matter much where the two of you

¹ Virtual teams: Research on virtual teams has identified three basic characteristics: members are geographically and/or organizationally dispersed, collaboration and communication occur through the use of information technologies, and interactions are more likely to be temporally displaced or asynchronous

² Global or globally distributed teams: These teams are comprised of culturally diverse members based in two or more nations that have a collective purpose or goal. The responsibility to achieve the purpose or goal rests with the team, although it frequently is related to a commitment to another organization or group.

are located – you can work effectively together and trust one another to do what needs to be done. Now imagine you are working in the same location with someone

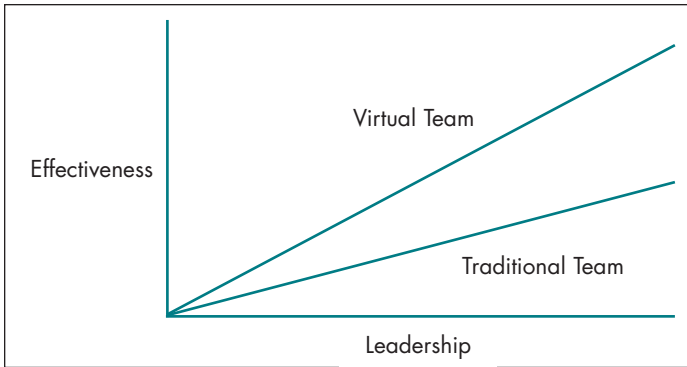


Figure 2. Leadership's Impact on Team Effectiveness

who has very different values, is from a different culture, and has a different communication style – chances are you will have problems. We know that leaders can make a difference, but our research has shown that the impact from leaders is greater as virtual distance becomes greater (see Figure 2).

Teams are most effective when they reach a point where they have a "shared mental model." A shared mental model means that everyone understands the goals, knows what everyone else can do, how they work and how they all fit together as a team. Attaining a shared mental model is not always easy, and it is even more difficult with virtual teams. This is where our new model comes in. *Ambassadorial Leadership™* is a new model of leadership that can promote shared mental models and effective teamwork in virtual teams that are geographically dispersed. It is ideally suited for situations in which there might be structural holes or when virtual distance and physical distance is high. The *Ambassadorial Leadership Model* has four key components: internal boundary spanning, external boundary spanning, shared leadership and advocacy.

Internal Boundary Spanning

Internal boundary spanning includes behaviors that encourage team members to break down the gaps that exist within the team. These boundaries may be along obvious fault lines such as location, organizational unit, and culture or they may be more obscure, such as differing interests, different values, or any of the variables that create virtual distance. Any of these factors can serve to fracture the team's identity and pose a potential threat to developing a shared mental model. When this happens individual members tend to identify with their

sub-groups and this can interfere with understanding their role within the larger team and with building trusting relationships with members of other sub-groups. The virtual team leader must first recognize that these boundaries exist and then take steps to promote understanding and acceptance between subgroups so that trusting relationships can be formed. In breaking down these barriers, the *Ambassadorial Leader* does not need to dissolve the sub-group, but rather celebrate the differences and the advantages that diversity brings to the

aries become new pathways that can help promote synergies and shared mental models. Figure 3 shows the ties (dotted lines) that have been established internally due to the ambassadorial efforts of the team leader.

External Boundary Spanning

A couple of additional concepts from SNA are useful in thinking about virtual teams. SNA refers to highly cohesive teams as "dense" because the members all have strong relationships with one another. Highly cohesive teams can be effective under some circumstances (e.g., a well-defined task or mission), but cohesive teams also have some significant drawbacks. One of the most important limitations of cohesiveness is the lack of new or different ideas. After a while everybody knows only what everybody else

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team. The *Ambassadorial Leader* also encourages active exchange between the sub-groups and the rest of the team. This will provide a potential for developing relationships, building trust and a better understanding of the resources that each member brings to the team. What had been bound-

in the team knows. This can be quite serious when the team's goal is innovation of a process or product. Establishing links to sources external to the team can increase the divergence and variety of ideas and also increase what social network analysts call social capital. Increased social capital can

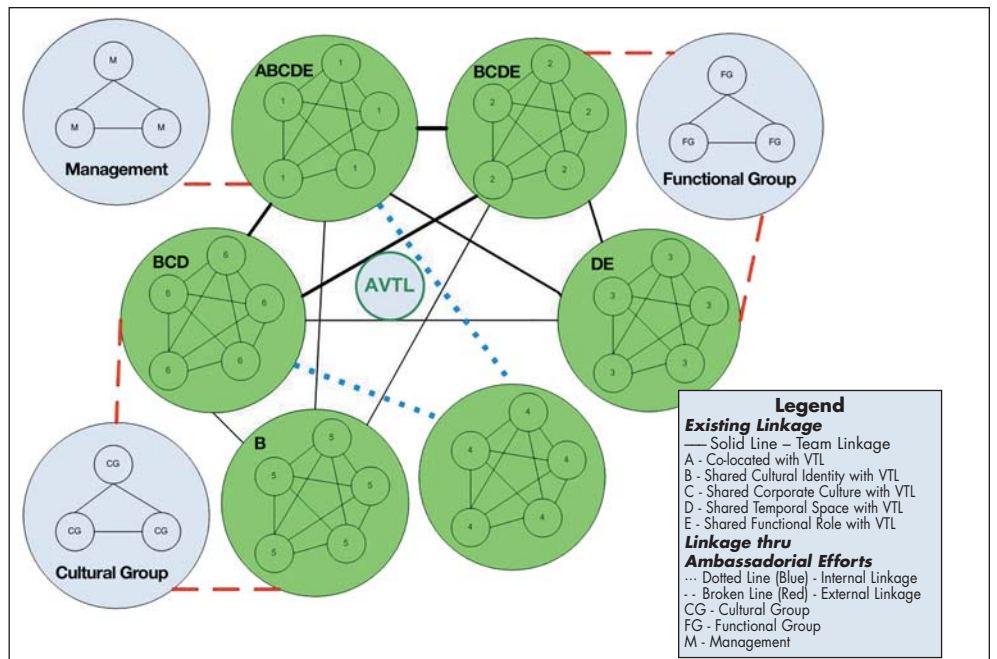


Figure 3. Emergent Ties through Ambassadorial Efforts

lead to several benefits for the team. First, access is gained to new ideas, perspectives and knowledge that can promote more innovative thinking. Second, additional resources in the form of personnel, fiscal support, technical support, or political support may be made available, and third, the team is more likely to understand how its goals and objectives fit into the overall strategic objectives of the organizations. Social capital also creates benefits that last beyond the life of the project. Relationships that are established can benefit the organization in future projects. External boundary spanning is particularly important for virtual teams whose members may be isolated from other people and groups in the organization. *Ambassadorial Leaders* can help by exploiting the commonalities that members have with people or groups outside the team. Commonalities can include functional skills/responsibilities, cultural background, organizational membership, prior relationships, etc. This requires another kind of ambassadorial skill – sensitivity to and understanding of the cultural and social distinctions that exist within and outside the team.

Knowledge is one resource that deserves special attention. As the team advances towards its goal, additional information/knowledge may be needed and the exchange of some of the most important knowledge is often tacit rather than explicit. That is, it comes from interactions between people rather than written or public sources. The virtual team leader in an attempt to help expand the information sources of a team will often charge those members that are most qualified and well-positioned with the task of establishing a link to an external source. These members have a number of responsibilities: first, attempt to secure the required information; second, open the communication channel to obtain an ongoing stream of information that is relative to the team goals; third, act as a liaison between the team and the entity's organization; fourth, relay the information received to the rest of the team; fifth, share the team's findings/information (as may be appropriate) with the outside organization; sixth, open an active exchange between all parties. In the most successful cases, this relationship will go beyond the simple exchange of information. In those cases the corresponding party may anticipate a need based on prior exchanges. The resulting information may

result in a new line of investigation towards meeting the team goals.

As the information exchange develops over this external span, both the team member and the outside entity will gain social capital not only within their own unit, but also with their collaborator's unit.

Shared Leadership

Having some co-located team members assume part of the leadership role can be an effective way to extend leadership influence particularly in situations where geography plays a big role. Shared leadership reflects the leader's acknowledgement and recognition of the unique talents, traits, and position that each member brings to the team. In addition to providing a synergy that propels the team forward, recognition of these contributions reinforces the individual's sense of belonging and strengthens Organizational Citizenship Behavior (OCB). OCB includes things like helping, mentoring, coaching and sharing. Research has shown that teams that engage in high OCB

team leader will charge this individual with assuming a leadership role within the group. Initially, this person will fill the structural hole between the sub-group and the rest of the team. In exercising the shared leadership, this member serves as a role model for the other members of the sub-group and encourages them to adopt similar behavior and reach across towards other parties within the collective team. In addition to promoting new levels of trust, the expansion of ties through other team members adds to the structural cohesion of the entire team. Shared leadership also carries with it responsibility for external boundary spanning. Through these roles, the virtual team can make use of its greatest potential resources. More importantly, as in most collaborative efforts, there is a synergy that is evident as the diverse groups, both internal and external, pool their collective resources.

Advocacy

Advocacy is concerned with recognition of the value of each individual and the team

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are much more likely to be successful. Shared leadership can help to support internal boundary spanning, external boundary spanning, and specific functional, research, development, or process needs.

As we discussed above, internal boundary spanning involves a process of exchange. The object of internal boundary spanning is to bridge the differences between team members or sub-units. These differences are the result of the diversity that exists within the team. This diversity may be due to: knowledge and perspectives – informational diversity; social and demographic membership – social category diversity; or beliefs and values – value diversity. The virtual team leader encourages the members or sub-units to engage in an active exchange. In the case of a sub-unit, the VTL seeks a candidate that is representative of the group and demonstrates leadership potential. The

as a collective entity. Effective internal boundary spanning is facilitated when the *Ambassadorial Leader* celebrates and leverages the diversity that exists within the multiple sub-units. In promoting the groups and the individual members, the VTL reinforces their value and subsequently encourages further exchange between the team members. In exercising external boundary spanning, advocacy is evident on multiple levels. First, boundary spanning activities should include promoting the value of the team to secure commitment and appropriate resources. Promotion should highlight both current and future value that will emerge as a result of the team's performance. Effective advocacy involves leveraging perceived similarities of team members with those in other units to help future placement and development of team members once the project is completed. Advocacy behaviors also extend to those assuming a shared

leadership who should also be encouraged to recognize and promote the contribution of team members in their sub-group.

Conclusion

We are at the early stages of our research on this model but initial evidence suggests that as teams become more virtual the *Ambassadorial* behaviors will have a positive influence on the necessary conditions for a high performing team. These include trust, organizational citizenship behaviors, innovative thinking and shared mental models. The *Ambassadorial Leadership Model* provides a framework for the development of practical leadership skills. As with most leadership behaviors, these skills can be learned and mastered with practice. Those organizations that deploy virtual teams in either operational or strategic initiatives may find that training in these skills will reap rewards in team effectiveness and also in improved levels of organizational citizenship behavior among their employees. ■

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