A Dynamic Network Analysis of an Organization With Expertise Out of Context

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The Department of Defense is rapidly transitioning from historically large and hierarchical organizations into smaller, more mobile, and more distributed network-centric organizations. In the traditional hierarchy that characterizes the legacy force, tasks are handled within each formal, functional staff subgroup and functional solutions are then devised at the top of the hierarchy. If there are conflicts susceptible to functional solutions, they are resolved after each task has undergone independent analysis. A disadvantage of this traditional organizational model is that conflicts needing solution are sometimes identified late in the problem-solving process (Cebrowski & Garstka, 1998). In additional, hierarchical organizations are more static, difficult to change and adapt to new changing conditions of a task. Our understanding the communication and decision-making processes for the network-centric organization has become critical (Alberts, Garstka, & Stein, 2001; Cebrowski & Garstka, 1998).

In 2003, a large group of officers with 10 to 30 years each of legacy-force experience were told to role-play as members of a notional network-centric organization. For 2 weeks, these experts were to ignore all of their experience and training with respect to hierarchical organizations and hierarchical decision-making processes and instead adopt a free-flowing network organization design. The exercise was conducted at the Fort Leavenworth, Battle Command, Battle Lab (BCBL). Army officers were required to learn (a) the concepts behind the hypothetical organization, (b) a new method to make decisions in the hypothetical organization, (c) their role in the structure of the hypothetical organization, and (d) how to use the simulation software. The exercise involved the execution of a simulated battle, using simulation software and battling against role-playing enemy officers. The Army officers gathered information and input actions on the battlefield via the computer simulation.

Researchers from the Dynamic Decision Making Laboratory at Carnegie Mellon University were invited to the BCBL exercise to provide support for testing a network-centric organization. Support included five observers and analysts as well as custom-developed data collection software. Our goal was to use network analysis techniques to describe the behavior of a network-centric battle staff. We also intended to use our analysis to gain insight as to the empirical strengths and weaknesses of network organizations. In addition, because there would be follow-up exercises, the Army wanted us to provide feedback on the design of the exercise, and on the use of legacy experts as futuristic role players. Our group applied social network analysis to the data collected during the exercise.

This chapter reports the results from the dynamic network analysis performed in this organization. This chapter describes a selected set of social network analysis measures used in the Army exercise and explains how these measures were implemented in the command-and-control context. This chapter also provides details of the network organization design, and describes the findings from this exercise. The chapter concludes with a discussion of the strengths and weaknesses of the network organization and the managerial challenges it poses, along with the implications of using legacy-force experts as exercise role players.

DYNAMIC NETWORK THEORY AND MEASURES

In any organization, people exchange ideas and information (Borgatti, Everett, & Freeman, 2002). Social network analysis is a technique that seeks to quantify the relationships among people in an organization. People and organizations are represented as nodes in a network, and the relationships (e.g., information flows) between people are represented as lines drawn between these nodes. Thus, a social network is a graph consisting of individuals and connections among them, where each connection is associated with some form of communication or relationship between the nodes (Borgatti, 1994; Scott, 1992). An example appears in Figure 18.1. Social network theory allows for the quantification of dyadic ties that exist between team members. Aggregating these dyadic ties yields characteristics of the overall organization.

As with social network analysis, dynamic network analysis allows researchers to concurrently perform individual-, group-, and organizational-

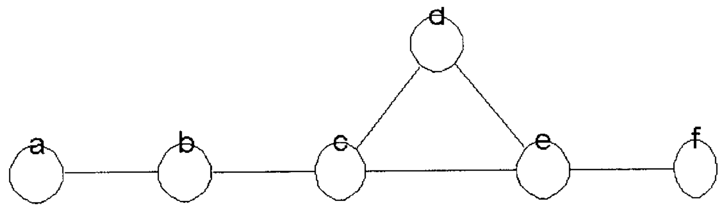

FIG. 18.1. A simple network graph. From Borgatti (1994). Copyright 1994 by INSNA. Reprinted by permission.

level analysis. Dynamic network theory is a temporal form of traditional social network analysis (Carley, 2003): It examines the trends in a network over a time span. Dynamic network analysis also seeks to account for an organization's current state based on characteristics of the organization's previous state.

Communication data among an organization's members can be gathered from shared e-mail headers, chat room traffic, instant messaging, and phone calls, or by surveying the individuals (Wasserman & Faust, 1994). Though each of these communication media has different qualities, measure relevance is determined by the organizational context and collaborative tool characteristics. For instance, in one study, we found that early in an organization's life, people are more comfortable with communication conducted face-to-face, but as they become comfortable, including comfort with their collaborative tools, they migrate their important communications to those tools. As researchers, we would need to track both communication media until a full transition to one or the other occurs. In the studies reported in this chapter, we describe both chat room and self-reported data.

Selected Set of Social Network Analysis Measures

Table 18.1 presents selected social network analysis measures defined and translated for a military command-and-control context for the purposes of our data analyses. Subsequently, the measures are translated for an Army brigade command-and-control context.

To use any of the social network analysis measures, communications data must be collected to be able to construct a network graph. Network software can help represent communications data into network graphs and obtain values for the measures described in Table 18.1. There exists general network analysis software, such as UCINET (Borgatti et al., 2002) or ORA (Reminga & Carley, 2003), that were used in this research.

Figure 18.2 is a UCINET-produced network graph representing 90 minutes of communication relationships in a 10-person command-and-control

TABLE 18.1
Network Measures and Concepts

Measure	*Organizational concept*
Network density	Network density is the number of actual links observed among the members of an organization divided by the number of all possible links (Freeman, 1979). A fully dense network or organization would have every person (node) linked to every other person. Organizations with high density share information quickly, but the higher the number of connections, or the greater the density, the greater the workload.
Network distance	Network distance, often referred to as the geodesic, is the shortest relationship path between any two members of the organization (Borgatti, 1994)—or, operationally, the shortest path distance separating two people within a communications network.
Physical distance	This is the actual metric distance between two members of the network. Shorter physical distance improves coordination. Coordination over greater physical distance may be partially facilitated by collaborative tools.
Self-forming team	This is a group of three or more network members who work together and reciprocate information sharing. Members of ad hoc, self-forming teams seek one another out in order to integrate expertise required to solve impending tasks.

cell of a network organization. The 10 are members of a Command Integration Cell (CIC) designed to coordinate the activities of other functionally oriented cells, and constitute a subset of the 56-member prototype network organization that was the focus of this research. We used this subset to further explain the measures in Table 18.1 into this exercise context.

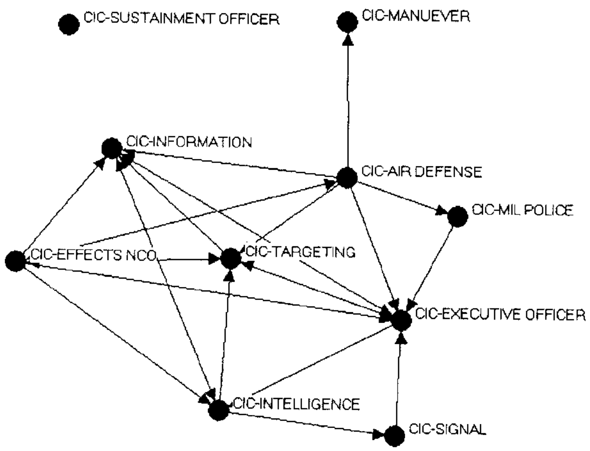

FIG. 18.2. Command Integration Cell (CIC) of a prototype network organization. Links external to the CIC are not represented in this figure.

Network Density

Network density provides a gross level measure of the connectedness of organization members. In the CIC example, there are 10 members and 90 possible links if each member has two possible links (a "to" and a "from") with each other member. As it is evident from counting the links in Figure 18.2, only 19 relationships were observed during the session depicted. The resulting density of the organization is 21.1%.

Each organization could have a 100% network density, but density is not a static measure. Fluctuations from 100% are a result of numerous factors tied to organizational and environmental dynamics. For example, changes in density could be attributed to how comfortable organization members are in their roles, to organizational procedures, and to changes in task workload.

Network Distance

The network distance is the shortest path distance separating two people within a network. A person's network distance from other members is a function of whom they choose to communicate with in the organization. In the CIC example, the Executive Officer has a path of length value of one. This is, the shortest connection in the graph between the Executive Officer and the other members of the network is one. He has a path length of two to the Maneuver Officer, meaning that the Executive Officer does not communicate directly to the Maneuver Officer, but rather he communicates to the Air Defense Officer who in turn communicates to the Maneuver Officer. He has a zero path length with the Sustainment Officer (from whom he is disconnected).

Physical Distance

Research has found that team members in close proximity function better than team members that are not colocated (Herbsleb, Mockus, Finholt, & Grinter, 2000). Physical distance is also an important indicator of the situational awareness any two members have in common and of how well they function as a team (Graham, Schneider, Bauer, Bessiere, & Gonzalez, 2004). In the CIC example, all of the members were positioned at a round table facing one another, and they were all categorized to have a physical distance of zero. Members of groups outside the CIC were categorized to be at a distance of one.

Self-Forming Team

Ad hoc, self-forming teams are unique to the network-centric organization. They consist of three or more members of the organization who form a group to solve some problem, engage in reciprocal communications, and may exist only until the problem is resolved. Traditional social network analysis characterizes teams of this type as *cliques* (Scott, 1992). We assume that this strong form of a team normally arises only in the presence of more difficult problems that require extensive collaboration and negotiation.

In Figure 18.2, the only subteam that met this definition consisted of the Executive Officer, the Targeting Officer, and the Intelligence Officer. From our notes, we know that this subteam focused on selecting and confirming enemy targets for the commander. This task apparently required reciprocal collaboration and communications in order to coordinate activities. All other potential subteams failed to pass the reciprocal-communications test, as no other member reported reciprocating the communications of another during this collection period.

In what follows, we explain the exercise conducted at the BCBL, Ft. Leavenworth. The data collection and analyses were done using the network measures explained previously. Furthermore, the data analyses conducted looked into dynamic network analyses in which we analyzed the change of the network measures over time. A dynamic network analysis considers the organizational form to be a living entity, capable of shifting form and structure, and it analyzes the change of this organizational communication (Carley, 2003).

DYNAMIC NETWORK–BASED MILITARY EXERCISE

The Army gathered 56 officers to serve as role players for a futuristic network organization command-and-control staff. The exercise design involved a distributed five-cell Army organization responsible for a brigade-size unit. Each functional cell involved three to eight role players. The role players gathered information, coordinated with appropriate staff members as they needed in order to execute a simulated battle successfully, and entered battlefield actions into the battle simulation software.

Individuals were also provided with communication software tools, including audio conferencing, instant messaging, a computer-based chat room, shared whiteboard, file transfer capabilities, and application-sharing software. Partitions or walls separated the five cells, so that a participant could talk directly to members of his own cell, but could communicate directly with members of other cells but only through the use of communication tools.

Communication data were collected over 5 days following a 1-week training period. We did not collect data during the training period. Communication data were collected on three sessions per day over 5 days. The training provided individuals with an explanation of network organizations and attempted to reduce the reliance on the legacy-force procedures during the exercise. A process in which the organization planned and then executed the scenario in the computer simulation was used in this exercise. Experienced military observers were placed within each cell to capture locally observable phenomena, such as face-to-face communications within each cell that wasn't captured through the communication technology. Our group was allowed to collect data from all role players every 60 to 90 minutes for 16 sessions, using an online questionnaire networked to each of the participant's workstations.

Though we would have preferred to log all communications regardless of medium, the computer system for this particular exercise would not support an automated logger; as a result, a self-report questionnaire was employed as a simplified means of collecting data on all communications between members regardless of the communication method used. A questionnaire asked participants to report the people with whom they had communicated during the time elapsed since the previous questionnaire. They could choose up to 10 responses by selecting participants from pull-down menus; the responses were ordered by the frequency of communication during the previous session.

The communications data set was used to construct network graphs. We created the network graphs within minutes of data collection in a way that the military observer and controllers could have immediate feedback on the critical trends. As a consequence of observing the patterns of communication, the military controllers were able to alert the observers of "hidden" communications on the part of the role players under observation.

Using the networks constructed from the communications data, we calculated the network measures described in the previous section. The calculation of these network measures over the course of the military exercise allowed us to draw conclusions about the dynamic behavior of the organization. In addition to the traditional network measures, we created a new measure that we call the workload congruence. This new measure as explained next helped understand how shared understanding changed over time. The results from these measures are presented next.

Network Density

In the "Measures" section we explained that network density is the sum of active links in an organization divided by all potential links between members (Freeman, 1979). Figure 18.3 shows the density for this exercise over

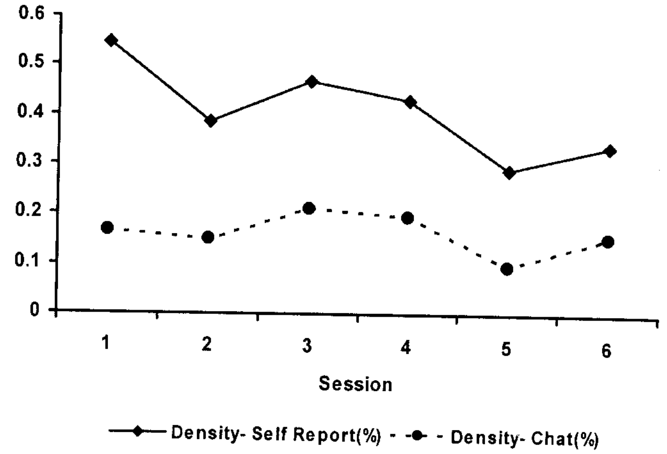

FIG. 18.3. Density from self-reported communications and logged chat room communications.

the last six consecutive sessions. We calculated the network density using the self-reported communications survey (density-self) and the logged chat room communications (density-chat). Based on these data, and given that the chat room was only one of the communications media available (face-to-face, chat room, instant messaging, or e-mail), the self-report is more representative of combined communication media quantity (higher density was found with the self-report). Although self-reports suffer from a number of biases and memory failures when they are collected sporadically, we attempted to reduce the memory effect by increasing the frequency with which we collected the self-report data to three times a day.

By collecting network density data throughout the exercise, we could construct a temporal graph of network density. Intuitively, one would expect the fluctuations to indicate activity in the organization due to the evolving number and types of tasks created by the scenario, and, potentially, the normative communication characteristics of the organization.

Figure 18.4 shows the change in network density over the course of the 16 sessions. After testing the linear trend of the network density, we verified that it significantly increased over the sessions ($F(11) = 10.81$, $p = .007$): density starts at approximately 10% and finishes at approximately 20%. This is a significant increase in magnitude, considering the lack of familiarity of the role players on network organizations and the short period of time they have worked together in this new organizational design.

Multiple possible reasons exist for the increase, including individual role development, requirements of the scenario or task, and improved under-

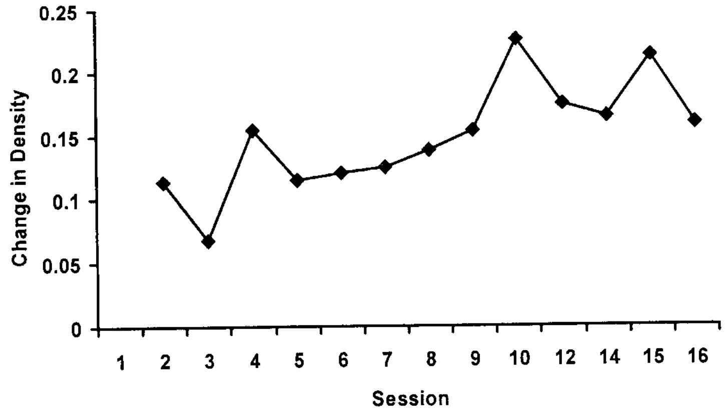

FIG. 18.4. Network density change over the course of 16 sessions.

standing of communication technologies. Using this density data, it is not possible to discern the real cause for the increase. However, during the interviews, the role players spoke of establishing procedures and developing a set of coordination rules. Chat rooms were identified for specific functions and tasks. Essentially the organization was learning, as the legacy-force expertise that did not apply to this network organization was discarded and replaced through collaborative trial and error.

Observer reports indicate that the variations starting at time period 10 can be attributed to changes in the scenario task load. During that period and supported by the feedback provided through the networks, the commander asked the team to pay special attention to the team members they should be communicating with, and asked them to concentrate on the execution of the simulated battle. Variations prior to time period 10 can more likely be attributed to organizational learning as individuals learned their own and others' roles and responsibilities. In a newly formed organization, norms have not yet been established (Moreland, 1999). For instance, people do not know who has expertise on different topics and whom they can or should contact when attempting to solve a specific problem and we would expect this to be reflected in the communication patterns. The participants in these studies were operating as a team for the first time. We expect a new organization to start out with a relatively sparse network, to gradually increase linkages as the members explore and establish necessary communication channels, and then to peak at some level of density. Once organizational norms are established, we expect that variations in behavior are attributable to factors such as organizational task load and changes in the external environment.

Self-Forming Teams

In a traditional, legacy-force hierarchy, problem-solving teams are functional in nature and do not cross functional boundaries; it is not until functional solutions ascend up the hierarchy that multifunctional teams are formally designated to coordinate their solutions. Any cross-functional teams occurring at lower levels are approved by each of the functional leaders affected. This formal process exists to prevent subordinates from incurring workload or shifting task priorities without the knowledge of their staff supervisors.

This deliberate, formal process is discarded in the network organizational design we tested. Instead, members are able to assign themselves to problems and to accept workload. Furthermore, they are able to freely coordinate across functional boundaries without the express approval of their respective supervisors. In network organizations, these interactions result in ad hoc teams—which are not part of the formal organizational structure, but come into being nonetheless. We wanted to know whether the role players would adjust to the network organizational concept and form ad hoc teams. If the role players were not able to shed their legacy-force behaviors, we expected to see stabilization of a few teams reflecting the typical organizational ties in a traditional hierarchy.

We analyzed the communication data to look for the groups of three or more network members who worked together and reciprocated information sharing. These groups were counted as the ad hoc, self-forming teams. Figure 18.5 shows the increase in ad hoc team formation over time. The number of ad hoc teams significantly increased ($t[12] = 6.68$, $p < .01$) as the organization members spent more time working within the network organization model. However, if the ad hoc teams found at each time period were persistent for a long period, it would be possible that the group members established a hierarchy so that the teams would no longer really be ad hoc. In the data, not one team stabilized and persisted over the duration of the exercise.

Figure 18.6 shows that only one team lasted for more than half of the sessions, whereas the majority of the ad hoc teams (204) were unique to a single session and never recurred in the communications network. Therefore, the organization members appear to have steadily adapted their collaborative behavior to that expected in a network organization.

Whereas the role playing members were adopting network behaviors, the role players assigned to staff leadership roles were losing oversight of their staff. The most prolific ad hoc team consisted of the CIC-Executive Officer, the MSC-Operations Officer, and the BSC-Sustainment Officer. At the end of the exercise, we queried all role players, and none were aware of this team's existence except for the members of the team itself. Krackhardt

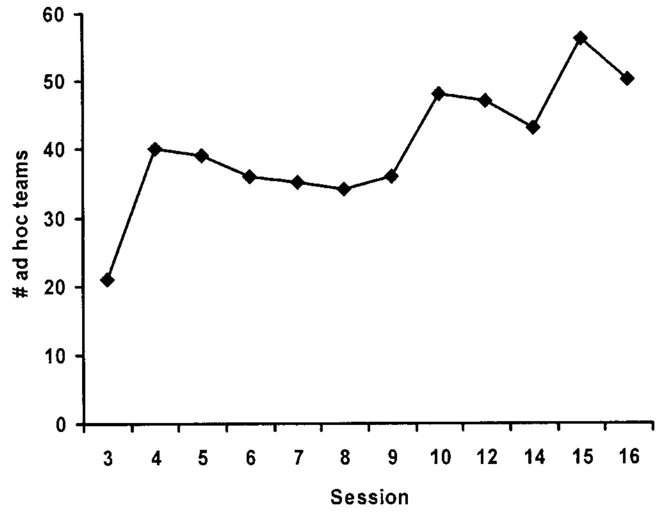

FIG. 18.5. Number of ad hoc teams formed per session.

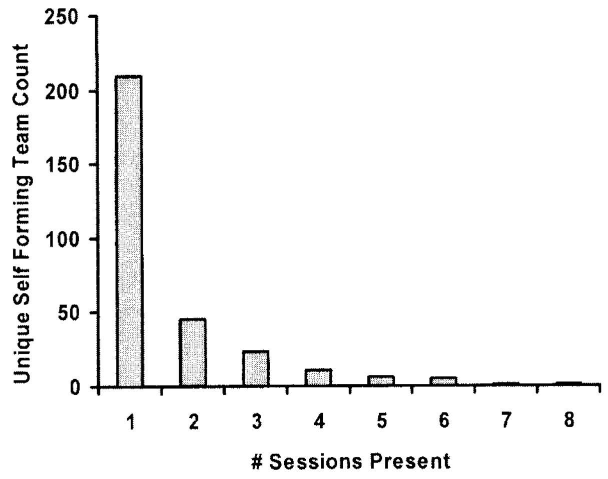

FIG. 18.6. Unique self-forming team count by number of sessions present.

(1987) found that managers exhibited about 80% accuracy in identifying the leaders and work teams in their organization. In a geographically collocated command-and-control organization, a leader has but to listen and watch to be aware of the number of ad hoc teams. In the geographically distributed network organization, however, the most prolific ad hoc team was invisible to the leader and other members of the organization.

Workload Congruence

All the traditional network measures provide information based on the links formed by the communication patterns. But none of the traditional network measures provide information about the shared understanding or knowledge of individuals that communicate. To understand how each of the participants' understandings of other players changed as they adapted to the network organization, we created a measure of each participant's workload shared awareness.

We measured the workload of each individual and their predictions of others' workload. This measure was derived from Entin (1999). We gathered estimates of workload using NASA TLX (Task Load Index; Hart & Staveland, 1988), comprising six workload parameters on a Likert scale. During the exercise, the role players were asked to rate themselves, as well as five other team members randomly selected from among the other organization role players. This allowed us to sample the workload measure at multiple time periods throughout the scenario. When rating other people, the role players had the option of selecting "Don't know" in answer to each of the seven questions. In a typical laboratory exercise consisting of college sophomores, "Don't know" would not have been an option and the participants would be expected to make their best guess. Working with experts requires different methods, however. Experts tend to know when they do not have sufficient knowledge to accurately answer a question. Adhering to a traditional experimental design and forcing the experts to blindly guess would have created frustration and decreased response validity.

The workload congruence was determined by comparing the workload estimations with respect to a particular role player with that role player's self-reported workload. This measure was computed by summing the absolute differences between the ratee's self-reported ratings and the raters' estimations. Congruence scores could range from 0 (no differences between the ratee's ratings and the rater's estimations, indicating perfect congruence) to 36 (corresponded to the possible maximum possible difference in each of the six TLX workload items measured, indicating perfect incongruence). If a role player chose "Don't know," the workload congruence was assigned a score of zero.

Figure 18.7 is a graph of workload congruence over all the sessions in the exercise. The upper line indicates the mean congruence for organization members who reported that they communicated directly during that particular session (direct communicators). The lower line indicates the mean congruence between all organization members, whether they communicated directly or not (entire organization). Note that both congruence means initially decrease. Overall, however, the workload congruence for direct communicators held approximately constant at a mean of 59.5%,

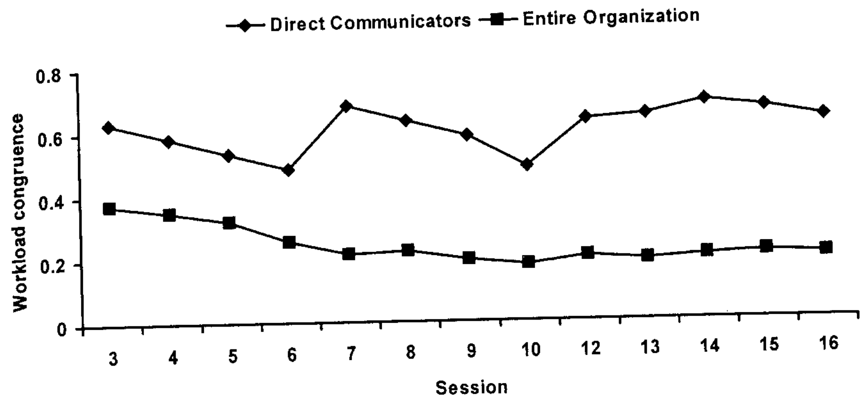

FIG. 18.7. Mean workload congruence by session and the comparison of between organization members in direct communication and all members of the organization.

whereas the overall workload congruence suffered a significant decrease over the life of the organization ($F[34, 2128] = 24.94$, $p < .01$).

Throughout all sessions, the participants were relatively consistent in their workload estimations for people with whom they reported they communicated with directly during that session. The interaction may have provided information about one another's workload. In fact, it is surprising that the direct communicators did not have better workload awareness over time. Nevertheless, the significant and continuous relative decrease in overall workload estimation is indicative of a loss of congruency of the workload awareness.

It appears that when operating in the new organization, these individuals had a high workload congruence at the start of the exercise. At that point, the organization was still operating with some legacy-force behaviors, and the role players' organizational mental models could produce somewhat accurate workload congruence. As the members explored and adapted to the network organization, however, their work procedures changed. Therefore, as the organization became more networklike, the role players' existing schemata did not apply, and their workload congruence deteriorated.

Network Distance and Physical Distance

Network organizations are highly dependent on members that are distributed across the battlefield, working and coordinating effectively with one another. At the outset of this exercise, a number of legacy-force experts expressed the opinion that "there is no substitute for face-to-face" interaction in battle staff coordination. In fact, much of the laboratory and field research has supported the claim that there is no substitute for physical proximity in team performance (Clark & Brennan, 1991; Olson & Olson, 2000). We were concerned that the distributed nature of the military organizations being tested would hinder their effectiveness.

Furthermore, given that research indicated that direct communications were more likely to produce an accurate workload congruency, we wanted to know what defined the boundaries of a typical role player's workload congruency. That is, how far, in terms of both physical distance and network distance did a role player's workload congruency extend in the organization—and, as either measure of distance increased, to what extent did that workload congruency deteriorate?

Physical distance is a geographical measure whereas network distance reflects the shortest network path between two role players. We were seeking to determine whether the accuracy of the role players' workload congruency extended only over the organizational subteam that they were physically collocated with, or whether it was more dependent on their communications with organizational members who were distributed across the organization.

First, we compared network distance to physical distance over the course of the exercise. We found that the two distance measures were weakly correlated at $r = .247$. This supports the hypothesis that the members at a short network distance from each other and those at a short physical distance from each other are not necessarily the same. In fact, we found that 53% of direct communications were with physically collocated members, whereas 47% were with members external to the role player's immediate location. That is to say, direct communications were nearly evenly distributed between members within the same cell and those in different cells.

Next, we wanted to understand whether direct communications with physically collocated members produced a better workload congruency than direct communications to those with physically distributed members. We found that, overall, the workload congruence of physically collocated members was 11% better than that of geographically distributed members ($F[32, 267] = 16.75$, $p < .01$). However, direct communications are not the only determinant of workload congruency accuracy. Observation, direct or virtual, can provide enough information to increase workload congruency. We first tested the hypothesis that physical distance is a predictor of workload congruency. Overall, we found that it was ($F[1, 24] = 211$, $p < .0001$), controlling for the effect of network distance, rater, and session.

We then tested the hypothesis that network distance is a predictor of workload congruency. Results are shown in Figure 18.8. We found that, overall, the effect of network distance on workload congruency is significant ($F[1, 34] = 302$, $p < .0001$), controlling for the effect of physical distance, rater, and survey period.

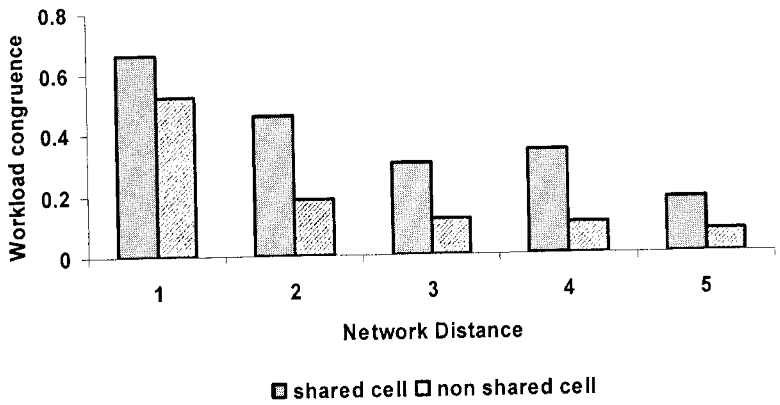

FIG. 18.8. Workload congruence by network distance.

Both social network distance and physical distance, then, were predictors of workload congruency. Figure 18.8 indicates that role players' initial workload congruency extended equally whether the person they were rating was collocated or not. Initially, organizational behavior reflected the role players' training in traditional hierarchies. In this environment, the role players could apply their legacy-force expertise to achieve equivalent workload congruency in both local and geographically distributed contexts. However, as the role players adopted network organizational behaviors, they were no longer capable of applying their expertise. As a result, they lost workload congruency with respect to organizational elements not collocated.

We found that geographical distribution had the least effect at a network distance of one and a progressively greater effect at greater distances. The role players were able to use their expertise to achieve workload congruency in this new organization. They were dependent on direct communication to achieve their best workload congruency; and as the exercise continued, they required physical collocation to achieve their best workload congruency.

CONCLUSION

This chapter has sought to understand expertise out of context through the study of role players operating outside of their traditional organizational design into a new network-centric organization. We collected communication data from a large military organization and used social network analysis to draw conclusions about the dynamic nature of the organization. Traditional social network analysis measures used included network density, network distance, physical distance, and self-forming teams. In addition to the traditional social network analysis measures, we also proposed a new measure, the workload congruence, which helps describe shared knowledge in the organization.

Clearly, the role players adapted to the new network organization behaviors in a relatively short period of time. The network density was high for self-reported communication data. The analysis of the change of density indicates an increase on fluctuations of network density over time, a sign of adaptation to the network organization. There was an increase in self-forming teams over time and most of those self-forming teams were unique to single sessions over the course of the simulation exercise.

However, in future research it is important to identify and categorize the effects of all possible causes for the increase in density and the need for self-forming teams. Also, it is important to further investigate shared understanding and situational awareness in network organizations. Our attempt to create a shared measure, workload congruency, yielded only limited success.

Although workload congruency initially seemed to increase, overall the congruency seemed to decrease for the overall organization and remain mostly stable for those individuals that communicated directly. Workload congruency was predicted by the network and physical distance. Higher congruency was found for those individuals physically collocated than for those belonging to different teams in the organization. Also higher congruency was found for those individuals that communicated more often than for those that communicated less frequently.

Research on network-centric organizations is ascendant now. As network organizations become more prevalent (Miles & Snow, 1992; Nohria & Eccles, 1992), workload congruence will become more critical as a design tool for organizational structure and collaborative tool selection. Validation of the workload congruency measure created in this research and the creation and validation of new measures of shared understanding are necessary. Dynamic network analyses is at its beginnings and measures of organizational change, and in particular measures of dynamics of shared understanding are expected to play a key role in future research. Finding ways to shorten the "effective network distance" through the use of shared visual space, and to increase workload congruence without high retraining costs, are worthwhile areas for future research.

It should be noted that large-scale network organization exercises are extremely expensive. Consequently, available replications would be rare; and it is difficult to accord general validity to observations that result from a small number of replications. These early findings, however, will shape both the organizational design and the methodologies of future exercises.

ACKNOWLEDGMENTS

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Chapter **19**

Preparing for Operations in Complex Environments: The Leadership of Multicultural Teams

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An Army patrol in Bosnia arrives in a village not particularly happy with the American presence—suspicious glares tend to be the norm. Upon their arrival, a crowd runs toward the vehicle yelling and screaming. The patrol leader and his interpreter exit their vehicle and are immediately crowded to the point that they cannot get back in or draw a weapon for self-defense. The Lieutenant then sees his interpreter disappear into the crowd. The Lieutenant becomes nervous as the two main options—driving away or using his weapon—are no longer available. Thinking he has led his patrol into an ambush with the two most likely courses of action deterred, the Lieutenant improvises and yells into the crowd asking if anyone speaks English. In response, a man emerges from the back of the screaming crowd. Quickly the Lieutenant asks the man to tell the crowd to back off. Surprisingly, the "hostile" crowd complies immediately. Upon asking why everyone was so excited and crowding around the jeep, the Lieutenant learns that a young boy fell into a well and people, hoping that the patrol could help get