

SCREEN TO SCREEN VERSUS FACE TO FACE: EXPERIENCING THE DIFFERENCES IN MANAGEMENT EDUCATION

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This article proposes to discuss and demonstrate the challenges inherent in the use of connective technology in the classroom. A classic experiential exercise has been modified as a network event that allows participants to study negotiation through linked PCs as well as traditional face-to-face (FTF) interaction. Reflections on the outcome of the event and suggestions for debriefing will be discussed. In addition, some considerations will be advanced regarding the role of the facilitator in making sense of the impact of technology-mediated communication. Finally, guidelines for facilitator self-assessment are provided to help educators work through some of our biases and assumptions about computer-mediated communication (CMC).

OVERVIEW OF THE ISSUE

The technology of connectivity greatly increases the number of experiential design possibilities. In response, Management educators have explored the techniques of the paperless class, online international case discussions, and ethnographic studies of user-group messages in a variety of venues. In our transitional environment, it is important to balance our enthusiasm for new technology with our responsibility for critical analysis. We can observe

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JOURNAL OF MANAGEMENT EDUCATION, Vol. 23 No. 6, December 1999 719-731
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how technology supports understanding organizational behavior (OB) and how the technology may divert students from experiencing the core OB lessons.

RELEVANT LITERATURE

Computer- or technology-mediated communication can be thought of as learning involving implementation of information, computing, and communications technology in more than one location (Alavi, Wheeler, & Valacich, 1995) and is more usually thought to describe what is known as distance learning. However, other forms of multilocation interactions including e-mail, Group Decision Support Systems (GDSS), and user-group formats are widely used in corporate settings and, increasingly, as a part of management education.

The effects of CMC have been studied from the perspective of distance learning (Webster & Hackley, 1997) as well as in small group decision making (Olaniran, 1994) and group performance (Chidambaram & Jones, 1993). The results of this research seem to indicate that CMC is less rich than FTF communication, with less eye contact, increased sense of emotional detachment, greater delay in response, and increased commitment to strongly held positions. FTF communication, on the other hand, seems to be a better vehicle for reaching consensus and supporting personal accountability in decision making.

The choice for the use of one medium or the other is by no means obvious. CMC is a better facilitator of idea generation in group decision making (Olaniran, 1994), whereas FTF is limited by space and proximity. Understanding the technology is important, but there are additional compelling reasons to use and study network-based learning.

Organizations are morphing from pyramids to Webs. Information and power increasingly flow horizontally and are becoming both cause and effect of flattened organizational structures. Lateral coordination of units and individuals is dependent on understanding the relative advantages and disadvantages of network communication (Galbraith, 1994). It is increasingly obvious that managing a culture of shared information is a key component of building organizational capabilities as well as an important aspect of education for the workplace (Leidner & Jarvenpaa, 1993; Taylor, 1991).

Finally, AACSB-International mandates that technology be a continuing context area in texts and courses. This stems from important changes in workplace culture. Our response as educators must be to design our learning inputs and outcomes with technology in mind.

Knowing how to set up an interactive, net-based experiential exercise is important, but there are other considerations as well. Connective technology is bringing forward new protocols of communication and providing new metaphors for understanding workplace relationships (Hennestad, 1987). Online communities now exist that meet relational (and other) needs of students and a wide cross-section of the general population (Armstrong & Hagel, 1996). The facilitative nature of CMC in experiential learning has also been examined for its impact on cross-cultural communication (Meisel, Boyer, & Weiner, 1997).

In addition, we need to account for the connective needs of those without access to the Internet. An appreciation of the symbolic and noninstrumental dimensions of the technology is necessary for learning to be complete (Prasad, 1993). That is, we need to have our students engaged in double-loop learning so that they think about how they are learning as well as about what is being learned.

In response to these changes, it is fair to ask what skills and ability students will need to be effective online communicators. The following exercise can provide some answers to this question.

OVERVIEW OF THE EXERCISE

When the Coalition Bargaining exercise (Hall, Bowen, Lewicki, & Hall, 1982) surfaced 16 years ago, it was designed to help participants understand the different sources of power, or leverage, that groups have in multiparty decision making. The use of this exercise is not diminished by time, but new ideas of organization, management, and information technology suggest different ways for this exercise to be used. Classic exercises in organizational behavior were designed and written for FTF communication and, although rich in meaning, generally do not take full advantage of the changes in contact technology. The adaptation of this exercise uses linked computers to allow participants to experience negotiation strategy and implementation in both FTF and remote site (CMC) interactions.

An additional objective for the exercise is for participants to reflect on ways that connective technology is changing how we make sense of organizational and individual behavior. Does the technology increase our understanding of perceptions and assumptions, or does it introduce confounding variables that conflict with widely held beliefs?

This exercise is a real-time, skill-building event but not a simulation. In fact, traditional negotiation (i.e. labor-management or vendor-client) seldom takes place online. Even in the high-tech workplace, the need for FTF interaction is driven by a desire to see and "feel" the opposition.

However, parts of the negotiating work are often achieved through CMC. For instance, checking the various aspects of a contract, updating vendors on product specifications, and sharing changes in wording of agreements are all done online in many companies.

For this work and in day-to-day small negotiations, CMC is increasingly the medium of choice. Managers use their e-mail and the Internet for the peer negotiations of day-to-day work and the use of influence to accomplish tasks and align people. Finding agreeable meeting times, developing documents with input from multiple parties, and operating in project teams are all negotiations that exist comfortably as CMC. Poor ability to communicate in this fashion leaves the student or manager in the difficult position of being misunderstood or ignored in the messaging process.

Students need to move confidently in this communication arena and have the sense of context and knowledge that they bring to FTF interactions. Traditionally, organizational behavior has provided this context and helped to clarify experience. This exercise and the debriefing to follow demonstrate the importance of CMC as well as the pitfalls.

SOME CONSIDERATIONS FOR THIS EXERCISE

- Studying issues of network building, aligning coalitions, and voice in decision making as well as power in competitive situations.
- Application to the workplace: Students who have had the opportunity through this exercise to think about both content and context in CMC will be better prepared to communicate effectively with peers, subordinates, and managers.
- Redesigning the classics to fit new paradigms: Coalition Bargaining is not the only experiential exercise that can be modified to take advantage of connective technology. Any exercise or simulation that relies on multiple forms of interaction without having a building component (e.g., Tower Building) would be applicable. Exercises that foster communication and decision making are especially ripe for this modification (e.g., "Bob Young" or any of the project management exercises). A computer-based version of the "Beer Game" has appeared in the *Journal of Management Education*, with full instructions for operation and debriefing (Coakley, Drexler, Larson, & Kircher, 1998). Finally, memo and role intensive simulations such as "Looking Glass, Inc." and "The Club Ed Exercise" (Harvey & Morouney, 1998) can be easily adapted by putting all of the memo writing, job descriptions, mission statements, and so on into CMC format.

PREPARATION FOR THE EXERCISE

Participants read the Coalition Bargaining exercise (see the appendix) and are divided into three teams for the negotiation exercise. The technology needed for this event is access to at least two linked computers with LAN

capacity and one of the several types of group software or conferencing systems (e.g. Lotus Notes GroupWare, MacTalk, or QuickMail). The attributes of the system should allow users to compose, send, and reply to negotiation comments, questions, and offers on a single screen. In addition, they should have the capability to access old and new messages to create a subject thread for real-time and post-exercise study. Setup for the exercise includes the following:

- Time needed: A 2 ½-hour block of time is ideal for this exercise. This includes reading time for the students, full rounds of negotiation, strategy sessions between rounds, and ample time for debriefing. This exercise is not suited to a single 50-minute class period but could be conducted in serial fashion across and between several classes.
- The exercise has been successfully run with negotiating teams of 3 to 6 members each. A larger group would benefit from running a second set of ABC groups with their own computers. In this case, however, the instructor would need to monitor the conversation threads on each set of computers as well as the FTF conversations involving the C groups.
- Students prepare for the exercise by reading material on negotiation skills and communication strategies. Those few students unfamiliar with e-mail are encouraged to set up an e-mail account using the information-technology resources of the university.
- The stake: In the authors' experience, there needs to be enough money at risk to add an edge to the game. Too little, and the students will simply give away their potential winnings. Too much, and the potential loss is upsetting. We have found that \$3.00 per person seems to generate the desired intensity without traumatizing the losers (who often have the money returned to them by their colleagues).

Instructor's Notes

RESULTS OF THE EXERCISE (WHAT PARTICIPANTS LEARN)

Based on the experience of the authors with this design as well as traditional FTF events, the following observations may be useful. First, an important consequence of this exercise is an increased awareness of CMC as a new form of language. Consideration must be given to interpretation of the message as well as lag time of responses (technical problems) and wait time for responses (decision-making problems).

Second, on the other hand, nonconstructive aspects of intergroup competition are exacerbated by the absence of verbal and nonverbal cues. The coolness of the medium leads to a response to the messages as if coming from the machine itself. This lack of affect was most often interpreted in a negative

way. Ironically, intragroup discussion was highly animated, but when translated through CMC, it was stripped of its affective component. Overall, use of CMC results in a lessening of trust as compared to FTF negotiations.

Third, students often remark on the difference in communication patterns when comparing FTF to CMC interaction. The flattened affect of CMC is often felt to be more professional than the warmer but "touchy" skills needed to interpret body language and other nonverbal cues. CMC has been called "colder but cleaner." The sense of what is missing or being missed in this arid environment is often the text of good class discussion.

Fourth, guidelines for effective CMC: Participants in this exercise have been polled over many iterations to see what rules of communication apply for effective CMC. The exercise has been run approximately 10 times over the past 3 years with groups of undergraduates, MBA students, and management faculty. Based on their experience and some additions by the authors, these include the following:

1. Think before you send. E-mail cannot be brought back undelivered under normal conditions. An angry or thoughtless message can do harm to relationships in ways that would not happen in the warmer medium of FTF communication.
2. Avoid the impulse to write entirely in bullet phrases. The medium is richer when better writing skills are employed where appropriate. Quick queries and lists should be given that way, but complex ideas often need complex sentences for full understanding. The goal should be concise writing without being abrupt.
3. Use techniques that personalize the communication. In companies that use CMC as part of daily communication, people usually let the "to" and "from" addresses take the place of any salutation. However, in CMC with people who are not constant correspondents, messages can be personalized by writing the name at the beginning of the message and signing one's own name at the end. This warms up an otherwise cool medium. There is mixed reaction to the symbols often used to designate emotion. A smiley face or other emoticon was generally deemed too informal for business communication. This was also true of the use of capitals for emphasis along with the perception that caps connote shouting.
4. Resolve questions about compatibility of technology and accuracy of transmission early on in the exercise. Using e-mail to ask your counterparts questions of clarification can accomplish this. It establishes some areas of agreement and demonstrates a win-win intention.
5. Establish understandings and time lines so correspondents will know when to expect reply. Will it be immediate or within several days? One advantage of CMC is that faster transmission time should provide more time to consider a response. One disadvantage is the expectation that a reply will be immediate.
6. Let the other party(s) know what you are doing. Tell the other person what is happening in the negotiation. Do not let silence accumulate. It only opens the door for inferences and emotional responses.

7. Self-monitor for emotional reactions based on inference. When you find yourself getting angry or annoyed by the other team's messages, step back to think of the context and alternative meanings. Is there another way this can be interpreted?
8. Clarify questions about meaning. Interpretations, especially negative in nature, seem to spring up as a natural consequence of a competitive exercise. This is especially so when participants are unable to see what their opponents are doing. In several instances, a technical breakdown of one team's PC led the other team to imagine an insult and created anger over unwillingness to bargain. The real cause of the breakdown in communication was subsequently revealed, but the history was a strong culture builder, and some refused to believe the excuse.

Fifth, teams bargain in somewhat predictable ways with an AB Coalition being formed about 80% of the time. This is a reflection of the rational economic decisions made by each team. Simply, the most money is obtained when these teams agree on allocation. An AC or BC coalition means that only 80% or 60% of the stake is allocated back to the students. As an interesting aside, the instructor can also put money into the pot (usually twice what the individuals put up) and, in so doing, become another player with a personal interest in the stake. When we first began using the design this way, we announced that unallocated funds would be donated to a social action group (e.g. Campus Out-Reach to the Homeless). However, participants were too ready to act against self-interest and explain their actions as "Let them have the money, it's for a good cause." Charity is admirable but was observed to be something as a smoke screen obscuring some reluctance to push the bargaining.

The solution to this was to announce that the facilitator would keep any or all money not allocated through a valid coalition. This changed the dynamics of the exercise, so that teams had more motivation to allocate the entire sum (AB) or to consider the difference as a cost of doing business in service of a greater goal. The facilitator gives the money back if an AB coalition is not formed; although the participants do not know this ahead of time. Usually, the winning teams do the same.

Sixth, the most frequent strategies are that Team A will seek to maximize profit based on their favorable position in the exercise. Team B is frequently torn between profits and an interest in establishing themselves as independent operators who are not swayed by Team A's focus on the money. Finally, Team C starts out feeling disadvantaged but occasionally (20% of the time) is able to paint Team A in such an unfavorable light that Teams B and C form a coalition to teach "those arrogant Team A people a lesson." This outcome is more likely when Team C's FTF interaction with Team B can be used to poison Team B's interpretation of their CMC negotiation with Team A. That is,

Team C takes advantage of the flat affect medium being used by their adversaries.

And finally, in contrast to the FTF condition where only the negotiators speak to their adversary, the teams gathered around the PC collaborated continuously with less regard for status or role. Participants report feeling less constrained than when using typical negotiating protocols. In this sense, CMC facilitated shared leadership, greater participation, and increased commitment to the decisions of the group.

DEBRIEFING THE EXERCISE

Topics for debriefing can include the following:

- Questions and comments that help participants understand the emotional/affective domain when people are communicating over distance.
- Guidance to appreciate the silences and subtext in online communication as a replacement for nonverbal communication (i.e., What did they mean by that?).
- Questions and comments that support the observation that just as in other forms of interpersonal behavior, it is dangerous to allow inferences to replace observations in understanding online communication.
- Questions and comments that highlight the need to study the interstices (the space between things) in understanding group behavior. This aspect is focused by remote site communication (i.e., What is happening in the areas we cannot see or hear?).
- Observations, questions, and comments that help participants consider the role of the nonconnected group in the exercise. This can be approached from a power perspective, strengths, and weaknesses of technology-mediated versus FTF communication, or ethical issues involved in dealing with groups or organizations without access to connective technology.
- All of the above questions and comments can be put to use in understanding communication across cultures and national boundaries.
- One week prior to the event, have participants write a short paper on the relative advantage or disadvantage of computer-mediated interaction versus FTF interaction. Following the event, the earlier papers can be examined in light of the recent experience. Participants might then do a follow-up paper indicating how their perceptions have changed as result of the exercise.

FACILITATOR SELF-ASSESSMENT

How we think about innovative teaching technologies has impact on our use of essential OB content (e.g. experiential learning, group dynamics, and communication skills). One strategy to assess readiness to use new forms of connectivity is to work through a series of self-assessing questions.

- List your sense of the core values (e.g., experiential learning or attention to process) as opposed to topics (e.g., motivation or communication) of organizational behavior.
- Identify a new teaching technology of particular interest to you (have used, using currently, or would like to use).
- From the core values identified, consider how each might be affected by the new teaching technology identified above.
- How does the new technology support the core values?
- How does the new technology threaten the core values?

The desired outcome of this exercise is awareness of one's underlying biases and frames regarding CMC. Consideration of these questions enables the management educator to more fully consider ways to use the heart of organizational behavior as a sense-making tool in the use of technology-mediated interaction.

Appendix **Coalition Bargaining:** **An Exercise in Power and Negotiation**

INTRODUCTION

A coalition may be loosely defined as a group of individuals, or subgroups, that join together to exert influence on one another. In an environment in which there are many individuals, there are often many different points of view, but each individual would like to have the system be representative of one's views. In a typical work environment, the views that are represented are usually those of a subgroup who have agreed to work together and support one another's views in exchange for having a stronger impact on the system than each individual could have working alone.

We are all familiar with the work of coalitions. The patterns of influence in politics and government provide us with excellent examples. In the private sector, strategic partnerships have developed in industries and within businesses to leverage influence, resources, and expertise. Organizations are composed of a variety of functional groups—production, marketing, research and development, and so on—each with a different sense of organizational priorities and practices. In addition, various stakeholder groups (employees, shareholders, customers, suppliers, and regulatory agencies) also make demands on the organization. In this model, organizations are complex webs of pressure among subgroups, striving to have their own priorities adopted as the primary goals of the organization.

This exercise demonstrates how coalitions form and how they can exert influence. Participants will also gain insight into the rewards that various coalitions feel they deserve if they are successful in their influence attempts.

PROCEDURE

Step 1: 5 Minutes

Form three teams with approximately an equal number of members on each team. Your group leader/instructor will designate teams A, B, and C. Each member should contribute money to the stake for the game.

Step 2: 10 minutes

Read the following rules.

RULES OF THE GAME

Objective

Form a coalition with another team to divide the stake. The coalition must also decide on a way of dividing the stake to satisfy both parties to the agreement.

The Stake

Each team has unequal resources. In spite of the fact that you each contributed the same amount of money, you will receive a different stake, depending on the coalition you form. The following table should be filled in with information based on the number of participants.

AB coalition will receive 100% of the stake = _____

AC coalition will receive 80% of the stake = _____

BC coalition will receive 60% of the stake = _____

The Strategy

Each team will meet privately to develop a strategy before the negotiations. You also will need to select a negotiator.

Rules for Negotiation (Team A and Team B)

1. Each team will meet in separate areas for planning and/or negotiation.
2. All members of a team will be present for negotiations; however, only the negotiators may directly communicate. In the case of face-to-face negotiations, only the team-selected negotiators may speak.
3. Notes may be passed to your own team's negotiator if desired.
4. A team may change its negotiator between meetings if desired.
5. Team A and Team B will only communicate using the linked computers. Each Team will have a PC in their planning space.

6. Team C will, at all times, communicate face-to-face with the other teams. Team C will be available for negotiation with Teams A and B in a designated neutral space.
7. At the end of the game, the stake will be allocated only if a valid coalition has been formed.
8. Only one formal coalition will be permitted and validated.
9. If no coalition is reached, no funds are allocated.
10. Negotiations will be conducted in the following fixed order and for the following fixed periods of time.

<i>Order of Negotiation</i>	<i>Time for First Round of Negotiation</i>	<i>Time for Second and Third Rounds of Negotiation</i>
Team A and B	5 minutes	3 minutes
Team A and C	5 minutes	3 minutes
Team B and C	5 minutes	3 minutes

The team not in the negotiations—that is, while the other teams are negotiating—must be absent from the process by going offline or leaving the negotiating space.

Valid Coalitions

1. A coalition will be considered valid if the following criteria are met: (a) No two teams are permitted to have the same amount of money (money must also be allocated in whole dollar amounts), and (b) neither team in the coalition is allowed to receive zero.
2. After negotiations, all three teams are given the opportunity to submit a written contract in the following form: “Team ____ has a coalition with Team ____ whereby Team ____ gets \$ ____ and Team ____ gets \$ ____.” When a written contract meeting the above requirements from any two teams agree, a valid coalition has been formed.

Step 3: 20 Minutes

Meet in a separate area with your team to plan your strategy. During the strategy session, you will want to decide with which team you might want to form a coalition, how you might want to divide the stake, and what kinds of offers the other team might make. You must also select a negotiator.

Step 4: 25 Minutes

Each pair of teams will report to the negotiation area for 5 minutes to conduct its discussions. Only the negotiators will speak or directly negotiate, but other team members can observe and send notes to their negotiator. At the end of each 5-minute block,

the group leader will stop the negotiations and move to the next pair. The team not in negotiations on a particular round must leave the negotiation space or go offline.

Step 5: 20 Minutes

Each pair of teams reports to the negotiation area in person or online for a 3-minute meeting for the second and third rounds in the same sequences as above.

Step 6: 5 Minutes

The group leader/instructor will ask each team to meet separately and to submit a contract stating the coalition that they believe was formed. The forms are read out loud in the large group, and the stake is allocated if a valid coalition is achieved.

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