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Creating and sustaining trust in virtual teams

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KEYWORDS

Trust; Virtual teams; Communication; Team life cycle; Team development Abstract Conventional wisdom assumes that trust develops from a history of interpersonal interactions and communication, through which people come to 'know and trust' one another. In virtual teams, however, establishing trust can be complicated: members may have no past on which to build, no future to reference, and may never even actually meet face-to-face. Swift but fragile trust can develop early in a team's life cycle. Yet, if swift trust doesn't develop or even dissipates, members need to find ways of building trust in each other. To this end, an understanding of how trust impacts a virtual team's development will help managers and team leaders to facilitate and improve team success. Herein, we describe the three components of trust (ability, integrity, and benevolence) and identify which of these are critical to each life cycle stage (establishing the team, inception, organizing, transition, and accomplishing the task) of the virtual team. Proposed action steps for each stage show managers and team leaders how to help members develop trust and sustain it through the project's successful completion.

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1. Virtual teams and the importance of trust

Increasingly, organizations are taking advantage of innovations in communication technology to enhance performance by creating virtual teams. When valuable members are geographically and organizationally dispersed, the creation of virtual teams provides organizations with the flexibility to draw on knowledge, skills, and perspectives

that would not be available for on-site collaboration. Virtual teams enable organizations to pool the talents of their own employees, and employees of trading partners and consulting firms, to meet the demands of today's hypercompetitive global environment.

Yet, despite the sophistication of available technology and the expertise of team members, virtual teams often fail to meet their envisioned potential. Structuring the organization and its tasks through networks of teams creates managerial challenges that are different from those in traditional hierarchical relationships. Because team members operate remotely from their manager and from each other, the traditional social and cultural norms are not available for influencing

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Stage	Trust	Manager's actions	Team leader's actions
1. Establishing the team	Dispositional trust Foundation for the development of trust	Choosing members	
2. Inception	Swift trust Build bonds of cohesion for the development of trust	Introductions	Team-building exercise
3. Organizing	Trust in teammates' —Ability —Integrity	Evaluate participation in organizing activities • Include contribution to organizing activities in evaluation criteria • Recognize and encourage leadership while discouraging domination and cliques Evaluate communication patterns • Include communication patterns in evaluation criteria	Encourage participation in organizing activities • Encourage participation from all members • Acknowledge and commend suggestions of individual members to the whole team • Do not exclude non-contributing members Monitor communication patterns • Require timely and substantive responses • Prohibit unsanctioned subgroups from communicating without including entire appropriate group • Encourage social aspects of communication
4. Transition	Trust transition —From ability and integrity —To benevolence and integrity	Be available • Support • Guidance	Move focus from procedures to accomplishing task • Punctuate the end of the organizing stage and the beginning of the task with an 'event' • Change focus from individual to group
5. Accomplishing the task	Trust in teammates' —Benevolence —Integrity	Support members	Encourage supportive communication in accomplishing the task • Establish interim deadlines and celebrate when met • Encourage members to express their appreciation of each other's contributions • Continue to encourage social aspects of communication • Continue to require timely and substantive responses

team members' attitudes and encouraging cooperative behavior. When team members are co-located, familiarity with one another is developed both informally and through task-related activities. Managers and team members are able to observe first-hand the time and effort expended by members. But when team members are dispersed, it is more difficult to build relationships. Many traditional forms of monitoring and control are not feasible. Communication has to be deliberately composed and, if the team members work in different time zones, responses may be delayed.

In this article, we show managers and team leaders how to help virtual team members use appropriate communication and interactions patterns to develop trust. First, we discuss the three components of trust: ability, integrity, and benevolence. Then, we identify the stages in the life cycle of a virtual team and provide action steps for managers and team leaders to take at each stage (Table 1). Taking these action steps will facilitate the development of trust among members and enable them to sustain it through the project's successful completion.

2. Have a little faith

People trust individuals who perform reliably and competently, and display concern for the well-being of others. Being on a team involves a certain amount of risk because members are dependent upon each other to complete the team's task successfully. Members can also potentially experience negative outcomes, such as the loss of time, recognition, or reputation, due to the behavior of other group members. If one member does not follow through on commitments or tries to take advantage of the other members, this behavior can cause more work for the team and can lead to poor performance evaluations. In virtual teams, reliance on electronic communication can promote free riding and lack of commitment because members do not actually have to 'face' one another. This makes members of a virtual team more vulnerable than members of co-located teams. Trust in other team members reduces concerns about their behavior and allows teammates to depend on each other and move forward with the team's task.

Trust traditionally arises in two ways. One is based on rational or calculative assessments and is called cognitive trust. It is the result of an evaluation of evidence of performance reliability and competence. Cognitive trust has been modeled as a function of the other person's integrity and ability. The second way trust arises is based on emotional ties and is called affective trust. It is the result of the social bonds developed in a reciprocal relationship in which there is genuine care and concern for the welfare of the other person. This type of trust is based on assessments of benevolence. Most discussions of trust now include all three components — integrity, ability, and benevolence — and describe a trustworthy person as honest, able, and caring.

Trust has traditionally been assumed to be based on a history of interactions, through which people come to 'know and trust' one another. But in virtual teams, members meet only occasionally, if at all. Surprisingly, high levels of trust have been found in the early stages of temporary teams, which are typically formed to accomplish a given task in a finite period of time. Meyerson, Weick, and Kramer (1996) identified this phenomenon in their study of co-located teams, and several researchers (including Jarvenpaa, Knoll, & Leidner, 1998; Jarvenpaa & Leidner, 1999; Jarvenpaa, Shaw, & Staples, 2004) have since documented it in global virtual teams. Members that have never worked together, do not necessarily expect to work together again, and do not have the traditional sources of trust (e.g., shared experiences, reciprocal disclosures, fulfilled promises) would be expected to have low levels of

trust in their teammates. Nonetheless, evidence indicates that high initial levels of trust often exist. This type of trust is known to be fragile, however; it dissipates easily. As such, managers and team leaders need to take an active role in ensuring that this initial trust actually develops and evolves into more traditional forms of trust.

3. Why is sustaining trust so difficult in virtual teams?

Trust is critical to the cooperative behavior that leads to the success of all teams, but it is especially important in virtual teams. Two interrelated factors, diverse locations and technology-enabled communication, contribute to making trust more difficult to develop in virtual teams than in traditional hierarchical relationships and on-site teams.

In on-site teams, members have the opportunity to easily develop relationships. Brief interactions in the hallway or before a meeting is convened allow members to interact socially and get to know each other. Members can discuss each other's work and their reactions can be conveyed verbally (through both content and tone) or non-verbally (e.g., a frown, a nod, or a questioning expression). Both the social bonds and the professional respect leading to trust can be developed during these interactions.

Different locations can create disparities in working contexts and situations that can lead to disruptions, misinterpretations, and misunderstandings. Members may be unaware of differences in the situational and contextual factors that impact other team members; what is normal behavior to some may be disruptive and/or disturbing to others in different locations. When teammates are dispersed, it is more difficult to create the bonds of cohesion that can lead to trust based on assessments of benevolence. There are no conversations at the water cooler, over coffee, or during lunch that help teams form a collective identity and group norms. Additionally, it can be hard for members to 'see' themselves as belonging, as the team is only visible electronically. Even if videoconferencing is used, the development of relationships is difficult because the social dimensions of working together virtually are not enacted in the same manner as when co-located.

Communication among virtual team members is also constrained by the use of technology. Technology-enabled communication does not convey the same richness of emotion and reaction that face-to-face communication enables; managers and team members do not have many visual cues that signal behavior and attitude. This means that communication in virtual teams must be more explicit because members

cannot see eyes rolling, nods of assent, or heads shaking in disagreement. What constitutes an appropriate written response to replace body language may not be known to team members and may differ from geographic location to location.

These factors make it critical to focus on communication content and patterns. Managers and team leaders should not just allow, but actually encourage social conversation in addition to task-related communication. Wilson, Straus, and McEvily (2006) compared the development of trust in computer-mediated and face-to-face teams, and Walther and Bunz (2005) examined trust and performance in virtual teams. Both demonstrated that the social bonds necessary for trust can be created in virtual environments; it just takes longer than face-to-face.

4. A team's life: The stages

Research and practice have shown that teams go through predictable stages. In studies on co-located teams, Tuckman (1965) and Gersick (1988, 1989) found that early in a team's life, members focus on organizing activities such as getting to know each other, clarifying goals, setting expectations, resolving conflicts, and planning how to accomplish their task. The transition from organizing activities to task-related activities is important because it signifies that the team has established norms of communication and behavior, and is ready to move on to the assigned task. Later in the team's life, as their completion deadline becomes more pressing, members focus on the activities directly related to accomplishing their task.

Research regarding virtual teams has found five distinct stages: (1) establishing the team, (2) inception, (3) organizing, (4) transition, and (5) accomplishing the task. The challenge for managers and team leaders is to encourage the development of trust initially and to nurture trust throughout the team's life. This challenge is particularly daunting because evidence indicates that trust is based on different assessments at different stages in the team's life, as shown in Fig. 1 and discussed in the

next section. To further complicate the situation, factors other than the stage of the project also affect trust. These factors include the training and the reward function for the team. Given the complexity of the manager's job in managing how these factors impact the team, guidance on action steps for each of the stages would be useful.

5. Action steps for creating and sustaining trust

Understanding the components of trust needed at each stage can help managers and team leaders take actions that encourage team members to develop trust. Managers and leaders can guide members toward behavior that demonstrates their trustworthiness to other members and that positively influences their trust assessments. Presented next are steps that managers and team leaders can take to help team members develop the types of trust needed at each stage of the life cycle.

5.1. Stage 1: Establishing the team

Even before team members first interact, managers need to take steps to create a foundation for trust. When assembling a team, the first characteristic of a potential team member that managers usually consider is the member's functional role. Functional proficiency is necessary for successful completion of the task, but it is not always enough to ensure that trust will develop. Potential members also need to have the personal characteristics and the interpersonal and team skills necessary for working in a virtual environment. If the potential members do not have these characteristics and skills, training should be given in these areas in effort to increase the probability of success. In addition, the organization's reward structure needs to be designed to encourage trust.

5.1.1. Choosing members

As previously noted, the functional role a potential member has in the organization and the set of



Figure 1 Type of trust required in team stages.

technical skills and operational knowledge that person possesses are important in accomplishing the team's assigned task. Managers usually assign appropriate members to the team based on their functional proficiency. Managers should communicate to the team the reasons why each member was chosen for the group. The manager's description of each member's functional proficiency inspires other teammates to make positive assessments of the ability of that member. Since ability is one of the two components of cognitive trust that other members will be assessing early in the organizing stage, the more proficient team members are in their functional area, the more likely it is that trust will develop.

A personal characteristic of team members that is conducive to the development of trust in others is dispositional trust (i.e., the predisposition to trust; the tendency to be more trusting). McKnight and his colleagues (McKnight, Choudhury, & Kacmar, 2002; McKnight, Cummings, & Chervany, 1998) found that a propensity to believe others can be counted on to do what they say they will do is an important precursor to the development of trust. This is true for the initial development of swift trust, and then for the development of trust in teammates' integrity and ability. Although a predisposition to trust does not guarantee that a member will actually develop trust, it will influence the member's trust assessments of other members. A member that trusts a teammate will interpret communication delays less negatively than a member that does not trust his or her teammate. The absence of a high predisposition does not preclude a functionally qualified potential member from selection. In order to achieve the desired level of trust within the team, however, managers and team leaders should compensate by paying particular attention to each of the action steps discussed below. This will provide an environment conducive to increasing trust.

5.1.2. Training

It is important that team members be trained in how to efficiently and proficiently use group-employed communication and application-specific software. Lags in responses that are due to user incompetence may be misinterpreted as reflecting a lack of functional ability or commitment, something which could lead to quicker dissolution of swift trust than would otherwise be expected. It may also lead to slower development of cognitive trust and can destroy established trust at any time. In one situation involving team members located in two countries, a disparity in communication software skills clearly contributed to lower assessments of abilities. This led to delays in accomplishing the task.

Training on being 'virtual' is also important. Kock (2004) pointed out that the 'natural' communication medium is face-to-face, and that it requires more cognitive effort to transfer knowledge via computer-mediated communication than face-toface communication. This actually makes working in a virtual team more difficult. In addition, team members may not be aware of the importance of careful composition and expression of ideas and opinions when members have diverse technical and cultural backgrounds. For example, joking, kidding, or chiding to encourage members to conform with group norms may work in some face-to-face situations, but can cause virtual team members to feel they have lost 'face' and the respect of the team. It can also cause any member that is the object of the joking to form negative assessments of the benevolence of the member(s) making the joke. Some team members may be comfortable using IM (instant messaging) language; however, this may cause other members of the team who are not familiar with that language to feel excluded. Exclusion can also cause any member to form negative assessments of the benevolence of other members. Training can help members become aware of these potential issues and teach individuals how to avoid them.

5.1.3. Reward structure

In a study on rewards and trust, Ferrin and Dirks (2003) found that competitive versus cooperative reward structures influence trust through actions (e.g., information sharing) and perceptions (e.g., perceived motives and perceived performance of others). Competitive rewards base remuneration on individual performance and sometimes involve performance rankings. In contrast, cooperative rewards base remuneration on overall team performance. The authors found that competitive rewards had a negative impact on members' perceptions of the information sharing and motives of others, on members' willingness to share information, and on members' assessments of team performance; conversely, cooperative rewards had a positive impact. In general, competitive rewards have a strong negative influence on trust and cooperative rewards have a strong positive influence on trust. Competitive rewards can detrimentally influence the willingness to share information. They can also influence the way team members perceive the behavior of others and result in negative evaluation of others' integrity. Increasing competition among individuals fosters secrecy and inhibits information sharing. Since most teams require cooperative behavior to reach their objectives, the reward structure should be designed to encourage it by using cooperative rewards.

5.2. Stage 2: Inception

When first placed into teams, members initially look to external sources to develop the swift trust that is necessary for the team to immediately start working together. Since most members do not know each other, they rely on their own dispositional trust and on external cues rather than their assessments of the characteristics of the other team members. In an article on trust in virtual teams, Hung, Dennis, and Robert (2004) identified three important external cues: personal endorsements from known third parties, role-based information, and rule-based factors. Upon team inception, the manager should provide members with enough information in these three areas to create a high level of swift trust.

5.2.1. Introductions

Because members rely on endorsements from third parties, the manager's introduction of team members should include individual endorsements of each participant. If the member has experience on virtual teams, this should be noted; if not, other characteristics that qualify the member should be included. For example, the member may have suggested innovative changes to processes or procedures that have been implemented and have succeeded, or he or she may be excellent at integrating ideas and concepts into solid actionable statements.

In the absence of information about an individual, members may adopt a presumption about that person based on their knowledge of that member's functional role (e.g., accountant, sales manager). The manager's introduction should include the member's functional role qualifications and why that function is important to the success of the team. This validation of roles will allow members to develop initial trust in each other and help lay a foundation for later trust in members' abilities. The team building exercise described in Section 5.2.2. would then expand on this information and reinforce the importance of the functional role.

Importantly, managers should delineate the 'rules of engagement.' The best practice is to first identify the similarities between the team's virtual work procedures and established procedures, and then identify differences caused by working in a distributed team. Even if the manager is not knowledgeable concerning these differences, it is important to identify the rules for communication and interactions. In their article examining communication rules for distributed teams, Walther and Bunz (2005) identified imperatives such as: start immediately, communicate frequently, acknowledge others, be explicit about what you are thinking and

doing, and observe deadlines. The authors found that merely setting a single rule requiring frequent communication led to a reduction in uncertainty and an increase in trust over no rules.

5.2.2. Team-building exercise

The team leader should initiate a team-building exercise that is designed to enhance swift trust and set the stage for increasing cognitive and affective trust. Since the functional role of the team member contributes to swift trust and team member ability contributes to ongoing trust, the exercise should provide a mechanism for members to identify the abilities of each participant and how they can be an asset to the team. One way to do this involves asking each member to 'interview' a teammate and introduce them to the rest of the group. To ensure that the exercise is successful, the team leader can suggest probing questions that elicit elaboration, covering such topic areas as education and qualifications, functional expertise, and virtual experience.

Most of the time, members use this exercise as a chance to get to know each other both professionally and personally. Participants frequently find that they have some common experience or similar interest, such as they have both worked with another employee or they have both been to the same annual meeting. Interpersonal bonds based on common experiences or interests can increase cohesion, which is desirable in teams. As mentioned previously, Walther and Bunz (2005) examined communication in distributed teams. They found social communication, including simply saying 'hi' at the beginning of an email, had a positive impact on trust. Creating social bonds early in the project lays the foundation for benevolence (affective trust), which is important in later stages of the project. This was exemplified by, and clearly the case for, a virtual team whose members discussed their hobbies by way of introduction and used emoticons throughout their communications. Such strong bonds had been established during the final stages of the project that members presenting the team task report in one time zone were voluntarily assisted via videoconference by other members — at 1:00 a.m. their local time!

5.3. Stage 3: Organizing

At this stage, uncertainty and ambiguity still exist within the team. Even though introductions have taken place, members will probably not know all of the other participants and/or may not have worked with them in a virtual setting. Even when the task is well defined, which is certainly not always the case, teams still have to establish their norms of behavior, procedures for assigning tasks, interaction patterns,

and decision rules. As noted above, it has long been acknowledged that during this stage, the team's primary focus is on getting organized.

During the organizing stage, trust is based on cognitive assessments. The two important determinants of team members' trust in other teammates are the assessment of others' ability to accomplish the project's goals (i.e., competence) and the perception of others' integrity in their interactions in the team. Managers and team leaders should actively encourage appropriate behavior and promote communication practices that enhance accurate perceptions.

5.3.1. Participation in organizing activities

Participation of all team members in the organizing activities allows them to get to know one another. Managers can emphasize the importance of participation by including it as an evaluation criterion in members' performance reviews. Because teams spend a substantial portion of their time getting organized, team success depends not only on members' functional contributions toward accomplishing the assigned task, but also their contributions to this stage of the project. At this juncture, some teams prepare a 'blueprint' or 'roadmap' for how they are going to accomplish their task. Managers can assign some percentage of the final performance evaluation to the team's performance of the activities accomplished during this stage. These activities include research, interaction patterns, determination of relevant decision rules, and equitable assigning of tasks.

Team leaders can encourage participation by directly asking non-participating members for their input. Team leaders should also acknowledge and commend the suggestions of individual members to the whole team, and encourage group members to acknowledge each other's contributions. Responses as simple as "Good idea," or "Great start — I'll take the next step and...," indicate that member efforts are valued. Members recognizing the contributions of others can lead to increased trust in their ability, which is an important component of trust at this stage. Affirmation and encouragement help engage team members and build cohesion.

5.3.2. Communication patterns

When managers evaluate team performance, they typically focus on the task at hand, and sometimes on the functional contributions of the individual participants. An area that has frequently been overlooked is members' communication content and patterns. Because communication patterns are critical to the development of trust, managers should have identified communication and interac-

tion rules at the inception stage. Accordingly, the manager should focus on communication patterns of team members, evaluate these patterns, and provide feedback to members. While participation levels are usually higher in virtual settings than in on-site settings, members' contributions to the organizing process should still be emphasized and identified through their communication patterns. Team leaders should also monitor communication patterns. Jarvenpaa and her colleagues (Jarvenpaa et al., 1998; Jarvenpaa & Leidner, 1999; Jarvenpaa et al., 2004) found that timely and substantive responses to the contributions of other team members are characteristics of successful teams and lead to trust. Additionally, they discovered that continuing to include non-contributing members enhanced trust.

In virtual teams, the leadership role may be assumed by different members at different points in the project's life. Monitoring communication allows managers to encourage leadership from members other than the team leader, while providing the opportunity to identify and discourage domination by some overly 'vocal' members. Allowing domination to go unchecked can lead to negative assessments of the integrity of other team members and does not allow all members to display their abilities.

Team leaders should also encourage non-task-related communication. In their theory development and empirical research article, Walther and Bunz (2005) found that the limitations of virtual communication can be overcome with time. They demonstrated that social bonds can be developed in virtual settings; it just takes longer than when team members are co-located. While the importance of assessments of benevolence in developing trust increases over time and has only been found to be significant in the later stage of the team's life, social communication in the organizing stage allows the emotional bonds required for benevolence to develop.

While encouraging social communication, team leaders should watch for the development of unsanctioned subgroups and prohibit them from communicating on project matters without including the entire appropriate set of members. Being excluded from task-related communications can lead to negative assessments of integrity of the unsanctioned subgroup and undermine the development of trust.

5.4. Stage 4: Transition

During this stage, the team's focus changes from organizing activities to accomplishing the task. During the organizing stage, ambiguity and uncertainty existed regarding the ability of the team to

accomplish its task, the procedures for making decisions, and the tone of the interactions among members. By the transition stage, members should have exchanged information, established roles and responsibilities, and developed working relationships. Once these organizing activities and the related cognitive assessments of trust are complete, uncertainties are reduced or eliminated and the focus shifts to the task itself.

The determinants of trust also change. During the organizing stage, team members made their cognitive assessments of others' abilities and integrity. As members get to know each other and develop relationships, the impact of cognitive trust fades and the impact of affective trust increases. While integrity will still be somewhat important in the next stage, accomplishing the task, the importance of benevolence (affective trust) increases. To assist members during the transition stage, managers and team leaders need to affirm team member contributions of the previous stages, provide guidance, and help shift members' focus to accomplishing the task as a team.

5.4.1. Be available

It is during the transition period that team members are most likely to again look to external sources. The manager needs to be available to acknowledge the effort that went into the organizing activities and provide guidance for accomplishing the task. The need for clarifications or explanations of the assigned task may arise at this point. It is essential that team members be made to understand that managers recognize the early organizing stage was not 'wasted' on non-task-related activities, and that they still have the support and confidence of management.

5.4.2. Move focus

At this juncture, the team leader must facilitate a shift of focus from the organizing activities to the task itself. During the inception and organizing stages, members were getting acquainted with each other and deciding how to work as a team. Now, the emphasis should move from the individual team members to working together as a group on the task. Openly acknowledging the value of each member's contributions to the organizing activities can reinforce the trust that developed during that stage. An event such as a virtual 'awards ceremony', in which every member receives a certificate for a certain achievement (e.g., best coordinator, most innovative), can create the camaraderie needed to build affective trust in the final stage. While this ceremony would best be conducted as a face-to-face meeting, video conferencing or an 'awards page' on the website can substitute. However it is performed, the team leader should punctuate the ending of one stage and the beginning of another.

5.5. Stage 5: Accomplishing the task

In this stage, affective trust moves to the forefront. Team members should be helping and encouraging each other in the completion of the project. The pressure to meet performance standards and deadlines necessitates continued trust. Because the outcome depends on the group, social bonds and benevolence are the primary determinants of trust. Due to this reliance on other members, integrity of individual members continues to serve as a secondary determinant of trust.

5.5.1. Support members

One way that managers can support members at this stage is to release them from some of their local responsibilities. If members have multiple demands on their time and effort, it is likely that they will attend to local tasks first. By freeing up local demands, the manager emphasizes the importance of the team's task. If a person at the next desk has a request and another person that is many time zones away has a different request, the local request is much more salient and more likely to be accomplished. The impact of repeatedly postponing virtual team tasks can be devastating to trust. Delays in responses and missed deadlines can, correctly, communicate the lower priority of the team task. This indicates to other members that the tardy member doesn't care as much about the success of the team and the team members. It lowers assessments of benevolence and integrity, which are the determinants of trust in this stage.

5.5.2. Evaluate participation in accomplishing the task

If the team has prepared a blueprint, the manager can use it to identify interim deadlines and recognize achievement of those deadlines. An encouraging email or a short 'thank you' memo addressed to the entire team identifying how the work done (even if it is only by some members) contributes to overall team goals can be motivating. If the manager includes a suggestion that teammates congratulate each other and express their appreciation, he or she reinforces the importance of communication patterns on affective trust. This suggestion can also be a subtle reminder that performance is evaluated on communication, as well as on accomplishment of the task.

5.5.3. Celebrate the achievement of interim deadlines

Team leaders should also commemorate the achievement of interim deadlines. Managers and team leaders should find ways for the team to celebrate when deadlines are met. Graphical or gauge-type depictions, similar to those used in fund-raising campaigns, that measure the milestones can be updated and proudly displayed on the team's website or portal. This helps to build the strong social bonds needed for positive assessments of benevolence, which is the most important aspect of trust at this stage.

5.5.4. Encourage supportive communication

Like managers, team leaders should encourage members to express their appreciation of each other's contributions. An email saying "job well done" will benefit both the sender and the receiver by maintaining the social bonds of cohesion developed earlier. Team leaders should also continue to encourage social aspects of communication. Not only will this type of communication promote trust within the current team, it builds bonds that may be useful for future teams. Finally, team leaders should continue to require timely and substantive responses to other members. Substantive responses serve as a form of quality control in the accomplishment of the task and help members stay engaged toward that end.

6. A final word on trust

The process of developing and sustaining trust among members of virtual teams is wrought with complexity, yet important to successful project completion. External signals (reputation, roles, rules) and intrinsic factors (predisposition to trust) determine initial swift trust. Assessments of ability and integrity (cognitive trust) determine trust in early stages of a team's life. Assessments of benevolence (affective trust) and the continued assessment of integrity determine trust in the later stages. In virtual teams, communication patterns and the incentive/reward scheme influence how communication is interpreted and how the determinants of trust are assessed.

Herein, we have discussed the importance of developing trust among virtual team participants in the context of the virtual team development stages. Managers and team leaders are challenged with encouraging the development of trust at key points during these life cycle stages. Three components of trust were described and correlated to each stage in

the virtual team life cycle in order to improve the success of the virtual team's tasks. Managers and team leaders were provided specific actions needed to influence the development of appropriate trust components at each of the stages in a team's life. By understanding which trust components are critical in each stage of virtual team development, management can increase the team's probability of success by monitoring and orchestrating appropriate activities that influence trust components throughout the virtual team life cycle.

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