Initial Trust Formation in an Online Social Action Network

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Abstract

This study explored initial trust formation in a computer-mediated social action network. The social action network studied was a voluntary non-profit organization that provided information and communication resources to individuals and groups. The risks and interdependencies inherent in the organization's work, combined with limited online identity cues, influenced not only the organization's choice of trust antecedents but also where these pre-conditions were found. Although online information provided cues for shared social identity, it was insufficient to extend initial trust to prospective members. The decision to approve individuals for membership required the use of offline information, specifically third party endorsement by known and trusted colleagues. Since other social action groups had public reputations, both in the real world and in the online environment, the organization felt able to extend membership to these groups with minimal or no real world vetting. Further research is required to examine the impact of information and communication technology on trust formation across contextually diverse computer-mediated social action communities.

Social action groups play an important role in the non-profit sector. They advocate for marginalized communities and challenge hegemonic interests of government and big business. Successful collective action involves both risk and interdependence, making trust between participants essential. Increasingly, social activists are turning to computer-mediated communication to support their work (Deibert, 2000; Diani, 2000). Although online interaction creates new opportunities for activists, it also poses a challenge for the development of trust. In an environment where individual identities are difficult to verify and where actions cannot be easily sanctioned, text-based information may be insufficient for the development of the trust and commitment required for collective social action (Ayres, 1999; Calhoun, 1998; Tarrow, 1998).

Although the question of trust has been raised in the context of online activist groups, scant research has been directed towards exploring its formation in a computer-mediated environment. Trust is contextual. Its development is shaped by the social relations inherent in specific situations (Granovetter, 1985). Online activist organizations are often subject to different vulnerabilities and interdependencies than other online communities. Social action groups rarely exist solely in an online environment (Agre, 2002). Social activists frequently have co-existing off-line and online networks of relationships and make use of a range of communication options to facilitate their work. These factors may affect which antecedents of trust are most relevant for initial trust formation.

The study described in this paper explored initial trust formation in a computer-mediated social action network. The objectives of this study were: (1) to examine the perceived risks and interdependencies that were present in the initial decision to accept applicants to a computer-mediated social action network; (2) to investigate what online information provided antecedents for initial trust formation in this context and (3) to explore whether this information was sufficient to extend initial trust towards an applicant.

The paper is organized as follows: first, the relevant literature that informed the study is reviewed; second, the methods employed in this research are described; third, the findings are presented; and finally the key results are discussed and some direction for further research is suggested.

Conceptual Background

Trust is fundamental to our ability to function in a complex world where we depend on other people to behave in accordance with our expectations (Govier, 1997; Luhmann, 1979). Although there is a general consensus that trust is an essential factor in the development of interpersonal and collaborative relationships (Axelrod, 1984), there is little agreement about its exact meaning (Hosmer, 1995). Most definitions of trust, however, rest on two essential conditions: risk and interdependence (Rousseau, Sitkin, Burt, & Camerer, 1998).

Risk occurs when a person enters into a relationship or situation where perfect information is unavailable, where the future outcome is unpredictable, and where there is a possibility of loss or harm (Chiles & McMackin, 1996; Lewis & Weigert, 1985). Risk creates an opportunity for trust development (Golembiewski & McConkie, 1975; Luhmann, 1988). Interdependence is the second essential feature. Trust grows out of the interdependent nature of activity, where one party relies on another, or perhaps many others, to achieve desired results (Rousseau et al., 1998). Risk and the nature of trust vary depending on the level of perceived mutual dependence (Sheppard & Sherman, 1998).

Kramer (1999) describes six bases of initial trust formation: dispositional trust, history-based trust, role-based trust, rule-based trust, category or identity-based trust and third-party trust. These conditions reflect both cognitive and interpersonal factors. Their relative influence on the initial decision to trust, either singularly or in combination, is contingent on perceived levels of risk, interdependence and on contextual factors (Bigley & Pearce, 1998).

Dispositional and history-based trust evolve through trust-related experiences where information from past relationships provides a basis for managing present situational risk and interdependence (Boon & Holmes, 1991; Lewicki & Bunker, 1996; Rotter, 1967). However, since it is impossible to obtain first-hand information about everyone with whom we interact, impersonal trust antecedents are used as substitutes for direct knowledge of trustworthiness. Role-based trust is extended to people based on the roles they play in society (Barber, 1983). It is

predicated on our expectation that people have the knowledge to competently carry out their role and that there are accountability mechanisms in place to ensure role compliance (Meyerson, Weick, & Kramer, 1996). Rule-based trust presupposes a shared understanding of a system of rules and appropriate behaviour in a given context (March & Olsen, 1989). Role and rule-based trust are useful in the initial stages of trust formation as they provide guidelines for appropriate behaviour and reduce uncertainty in interdependent relationships (Kramer, 1999).

Based on social identity theory (Tajfel & Turner, 1986; Turner, 1987), category or identity-based trust suggests that we use social comparison and categorization to assess whether other parties are similar to ourselves (McKnight, Cummings, & Chervany, 1998; Meyerson et al., 1996). Fellow category members are felt to share our values and goals, supporting a perception of interdependence and shared fate, which increases our willingness to trust their motivations and intentions (Brewer, 1999).

The theory of third-party trust proposes that, in the absence of a relationship history, information from known trustworthy people facilitates the initial decision to trust an unknown party (Burt & Knez, 1995; Uzzi, 1997). If A has developed a trustworthy relationship with B, and B vouches for the reliability of C, then A may be more willing to trust C. Reputation, a form of third-party trust, refers to public information about a person's past performance that allows us to predict the likelihood of that person behaving in a similar manner in the future (Axelrod & Douglas, 1988; Burt & Knez, 1995). A positive reputation is a valuable asset that is built slowly through "word of mouth", through information from trusted third parties. A reputation for trustworthiness can act in lieu of a positive interaction history (Burt & Knez, 1995) and can encourage trustworthy behaviour (Yamagishi & Yamagishi, 1994) since a negative change in reputation can be detrimental to the development of future relationships (Burt, 2001).

Although many social scientists propose that trust develops slowly over time as individuals accumulate knowledge of others through multiple interactions (Jones & George, 1998; Lewicki & Bunker, 1996; Mayer, Davis, & Schoorman, 1995; McAlister, 1995), some theorists suggest that initial trust can form at a high level even when there is no history of past interaction (McKnight et al., 1998; Meyerson et al., 1996). Computer-mediated interaction is an example of a context where trust behaviours can occur without a history of interaction. The medium's reliance on text-based communication, however, may influence which of the above conditions support trust formation in online environments.

Computer-mediated Communication

Computer-mediated communication (CMC) may be broadly defined as any form of human interaction that is enabled through the use of computers (Wood & Smith, 2001). The four elements that best characterize CMC are speed, interactivity, reach and anonymity (Gurak, 2001). For many people, the appeal of

CMC rests on the medium's ability to send information quickly and inexpensively at the touch of a keystroke (Wood & Smith, 2001). This is true not only for information shared between specific individuals, but also for many-to-many communication that occurs in various kinds of online discussion forums. The speed with which information travels encourages people to share messages with a wide audience; it encourages them to increase the range of their social relationships (Wellman, 2001). The capacity to send messages to a large number of recipients allows people to maintain contact with and to retain partial membership in diverse groups that span temporal and geographic boundaries (Haythornthwaite, Wellman, & Garton, 1998).

Speed, interactivity and reach, either singularly or in combination, are features that are shared by other communication technologies such as telephone, radio, and television. CMC combines all of these features and adds the element of potential anonymity (Gurak, 2001). Since computer-mediated interaction depends on textual information, the medium allows people to alter or obscure their identities. Some people alter some portions of their true selves, while others assume identities far removed from the ones they inhabit in the physical world (Turkle, 1995). A well-known *New Yorker* cartoon (Steiner, 1993) depicts two dogs in front of a computer screen with a caption that reads, "On the Internet, no one knows you're a dog". This old joke reminds us that we can never be sure who is at the other end of a computer-mediated interaction (Donath, 1999).

Despite its increasing popularity, online communication is not a simple substitute for face-to-face interaction (Flaherty, Pearce, & Rubin, 1998). Recent research presents an ambiguous picture as to whether information and communication technology can support meaningful relationships. On the one hand, the medium's lack of physical and social cues has led some theorists to argue that CMC cannot support complex relationships (Daft, Lengel, & Trevino, 1987; Kiesler, Siegel, & McGuire, 1984; Short, Williams, & Christie, 1976). On the other hand, some researchers propose that these same limitations have the potential to democratize relationships and to encourage the exchange of diverse opinions (Haythornthwaite, 2002; Sproull & Kiesler, 1991). These theorists argue that people compensate for the lack of nonverbal and social cues and that online relationship development is influenced more by time and by participant perceived similarity than by the limitations of a text-based environment (Spears & Lea, 1992; Walther, 1996).

The Social Information Processing and Hyperpersonal Models (Walther, 1996; Walther, Anderson, & Park, 1994; Walther & Burgoon, 1992) suggest that when time restrictions are removed, interpersonal relationships formed under CMC conditions become similar to face-to-face relationships. People modify their language in order to compensate for their reduced ability to transmit social nuances in a text-based medium. Participants in CMC environments edit their communications and construct more deliberative and articulate messages, thus managing and improving the impression they create. In addition, online

participants tend to overvalue minimal text-based cues and form idealized perceptions of each other (Walther, 1996). In some cases these idealized relationships can exceed the intensity found in face-to-face encounters.

Based on social identity and social categorization theories (Tajfel & Turner, 1986; Turner, 1987), the Social Identity Model of Deindividuation Effects (Spears & Lea, 1992) proposes that since online communication provides minimal cues in terms of individual identity and difference, participants are more likely to focus on social identity. In text-based interaction it is the participants' similarities that prove to be salient and it is the emphasis on these perceived attributes that foster attraction and attachment. Identity ambiguity results in a shift of focus from the individual to the group, enhancing the significance of social boundaries and the stereotypical categorization of others (Postmes, Spears, & Lea, 1998).

Although these models do not directly address trust formation in a computer-mediated context, the argument that participants in online environments over attribute and use idealized category or social identity information to form relationships may have implications for online trust development.

Online Trust

Internet researchers acknowledge that there are distinct differences between offline and online interactions that affect the formation of trust (Friedman, Kahn Jr., & Howe, 2000; Herring, 2002). Since computer mediated communication (CMC) facilitates interactions that span geographic locales, it potentially eliminates social history as a basis for trust development. Role and rule-based conditions can also be compromised by partial membership in multiple communities and by the medium's lack of hierarchical structure and standardized procedures (Rheingold, 1993; Sproull & Kiesler, 1991; Wellman & Hampton, 1999). Most significantly, CMC's reliance on text-based interaction creates the opportunity for participants to change their identities and manipulate their interaction histories (Donath, 1999; Turkle, 1995; Walther, 1996). The resulting identity plasticity can provide significant challenges for the development of trust. So how do we come to trust the people we interact with online?

Security mechanisms, for example access control, have been proposed as a means to allay anxieties about misinformation and fraud perpetrated online by anonymous individuals. This perspective has been described as "trust through security" (Nissenbaum, 2001 p.103) and assumes that a perfectly secure system will ensure trustworthy online behaviour (Castelfranchi & Tan, 2001). However, this view has been criticized as a fundamental misunderstanding of the concept of trust (Nissenbaum, 2001) and as unrealistic, since online environments cannot be made totally secure (Denning, 2001).

Friedman et al. (2000) observe, "People trust people, not technology" (p.36). When people approach an unfamiliar situation, they attempt to apply experiential rules that have helped them in the past (Kramer, 1999). In the physical world, we

look to social and environmental cues to facilitate our decision to trust another party. Online trust requires an examination of how people transfer their previous experience with trust antecedents to a computer-mediated environment.

Identity information is a significant factor in our assessment of another's trustworthiness (Kramer, 1999; Rousseau et al., 1998). In a computer-mediated environment, identity information may be derived from a domain name since these Internet addresses have reputations and may imply varying degrees of social identity information (Donath, 1999). A second identity cue is writing style (Gurak, 2001). A person's use of language gives us a sense of their "voice", a sense of how similar they are to us. These textual cues, however, are limited in terms of trust formation since a domain name may not be directly linked to a real world individual (Donath, 1999) and a person can shape their writing style to better manage their online image (Walther, 1996).

The majority of studies that examine social aspects of online trust formation concentrate on reputation and third-party trust. Research about online reputation has examined its effect in Usenet newsgroups (Kollock, 1999), online auctions (Kollock, 1999; Resnick, Kuwabara, Zeckhauser, & Friedman, 2000) and on the development of consumer trust in web merchants (Jarvenpaa, Tractinsky, & Vitale, 2000). In these studies, reputation has had a strong main effect on participants', or consumers', decision to engage in transactions and to trust unknown partners.

Intermediaries and website hyperlinks have also been proposed as antecedents of third-party trust. For example, Trusted Third Parties (online organizations who act in a similar fashion to Better Business Bureaus) have been examined as verifiers of online merchants' trustworthiness and for their contribution to the development of positive reputations (Palmer, Bailey, & Faraj, 2000). Another proposed third-party trust antecedent relies on the Internet's capacity to support hyperlinks between websites. Should a website be perceived as trustworthy, the hyperlink connection between it and another site may increase the likelihood of trust being generalized to the second site (Stewart, 1999).

Online trust formation has been a particular focus in e-commerce research (Iacono & Weisband, 1997; Jarvenpaa & Tractinsky, 1999; McKnight, Choudhury, & Kacmar, 2000; Resnick et al., 2000). While these studies provide a useful examination of this complex concept in a cue-limited environment, limited research has been directed towards exploring initial trust formation in other online contexts, for example, activist groups who have embraced the use of computer-mediated interaction to further their social action campaigns (Ayres, 1999; Deibert, 2000; Diani, 2000).

Social Activists' Use of the Internet

CMC offers social activists several potential advantages over traditional means of communication. Activists use computer networks to communicate with each

other, build support for social change, recruit new members and coordinate their action agendas (Diani, 2000; Myers, 1994; Spears, Lea, Corneliessen, Postmes, & Ter Haar, 2002). Public protests are increasingly conceived, planned and evaluated with the help of the Internet (Ayres, 1999; Capling & Nossal, 2001; Deibert, 2000; Kobrin, 1998; Smith & Smythe, 1999). By venturing online, activists expand not only the range of social action tools at their disposal but also the ways in which they connect with like-minded individuals (Spears et al., 2002).

The Internet enables rapid diffusion of information at minimal cost, so that the time and resources required for sending a message to hundreds of people is negligible as compared to circulating that information by telephone or post (Diani, 2000). The use of information technology increases the coordination and effectiveness of national and international social action activity. For example, computer-mediated interaction has been credited as an element in the successful campaign against the Multilateral Agreement on Investment (Deibert, 2000).

Online social activist interaction, however, is not without disadvantages. CMC's rapid and cost-effective spread of information can prove to be a double-edged sword. Impression dressed as fact, unsubstantiated rumour and deliberate misinformation are frequently circulated through e-mail networks (Ayres, 1999; Gurak, 2001). Although activists benefit from CMC's forwarding capabilities, where original messages can travel through multiple e-mail lists without distortion, there is no guarantee that the information originates from a reliable source.

Participants in social action networks often hide their personal identities. While activists at risk from repressive regimes and those that engage in direct action benefit from CMC's capacity for identity plasticity (Diani, 2000), trust takes on a new meaning when interacting with a disembodied stranger whose actions cannot be tied to a verifiable identity (Kollock, 1999). Social scientists who study online activist groups have questioned whether identity-based trust, formed solely through text-based communication, is sufficient for the development of the collective trust and mutual support required for social action (Ayres, 1999; Calhoun, 1998; Deibert, 2000; Diani, 2000; Tarrow, 1998).

Methods

Exploratory studies provide an opportunity to generate information on topics that have received little scientific attention (Miles & Huberman, 1994). This study employed qualitative methods, specifically an online focus group and observation of the new applicant decision-making process, to understand initial trust formation in a computer-mediated activist network.

Description of Research Setting

The computer-mediated social action network (CMSAN) is a voluntary organization that provides information and communication resources for individuals and groups who engage in social action. CMSAN regulates access to

its communication facilities and political networks through a closed membership. Individuals and groups apply for membership by completing an extensive online application form that asks for information about personal identity, activist involvement, referral sources and, if applying as a group, a description of group purpose. Since CMSAN is dependent on volunteer support to provide service, it also requests applicants to consider how they can contribute to the maintenance and growth of the network.

Applications for membership are posted to a subgroup of CMSAN who review the applicants' information, forwarding ones they perceive as priorities to face-to-face membership meetings. If anyone has reservations about either the applicant or the information provided, membership is either denied or postponed pending further investigation.

Privacy and confidentiality were important concerns for CMSAN. These issues assumed even greater significance after the events of September 11, 2001. Although I was known to the organization, following September 11, the general atmosphere of caution resulted in a more considered negotiation of the research process. CMSAN consented to my recruiting members for an online focus group and to my observing the face-to-face discussions of new applicants based on the following conditions:

- that the participants in this study, and any verbatim excerpts of their communications or discussions, be anonymous in the final presentation of this research.
- that the study be limited to an examination of the antecedents of trust that enable members to accept new applicants and not include any reference to specific social action activity.
- that the purpose of my observation of the discussion of new applicants be explained at each face-to-face meeting and that I withdraw from any meeting where there was an objection to my presence.

Online Focus Group

This study employed an online focus group (Chase & Alvarez, 2000; Gaiser, 1997) to explore the conditions that allow CMSAN to trust and accept new members. An asynchronous focus group procedure was used, as it was the most common form of interaction for CMSAN members and allowed for maximum inclusion of potential participants. Focus group participants were recruited through an e-mail post sent to active CMSAN members, including the subgroup that reviews applications. Eleven members of CMSAN volunteered to participate, three of whom were involved with the sub-group that reviews initial applications.

A modified form of nominal group technique was used to provide structure for the group. Questions were posed one at a time. All initial responses to each question were collated, clustered in terms of similarity, and returned, anonymously, to the participants for review and discussion. The results of this subsequent round of posts were collated, clustered again if necessary, and returned once more to the

participants for final review and comment. The study retained ten out of the eleven initial participants, with all ten participating in at least one round of each question.

Observation of Decision-making

The second qualitative procedure employed in this study was observation of the face-to-face discussion of prospective members' applications (Patton, 2002). The participants in the observation part of the study consisted of core members of CMSAN as well as general members who attended the weekly meetings. Eleven individual applicants and six group applications were discussed over a five-week period of observation.

Data Analysis

Theories from relevant literature were used as sensitizing concepts to develop a categorization framework for the data analysis (Miles & Huberman, 1994). Returning the findings to the focus group participants facilitated initial identification and categorization of emergent themes and provided a measure of respondent or internal validity (Silverman, 2000). The field notes from the observation component of the study were analyzed using the same conceptual framework. Observation of the face-to-face discussion of applications provided a means for verifying or challenging the focus group findings and provided a second measure of internal validity for the study's findings (Patton, 2002; Silverman, 2000).

Limitations of the Study

The limitations of this research include the study's small sample size and the potential bias of my prior knowledge of the organization. The limited number of participants in the study makes it difficult to say whether the findings were indeed a trustworthy depiction of initial trust formation in this organization. Although I perceived my familiarity with CMSAN as an asset, I was also aware that my insider knowledge could potentially privilege certain aspects of my findings. My use of nominal group method and the sharing of data with the study participants were attempts to address this potential limitation.

Findings[1]

> There are many unique problems that online collectives face in figuring out whom to add to a project. The main problem being that most of us have never met face-to-face. Not being able to meet potential members of your project is a big hurdle. How can you trust the new person? (3)

Risk and Interdependence

Risk and interdependence are significant factors in the initial decision to trust another party (Dowling & Staelin, 1994; Rousseau et al., 1998). Focus group participants described five areas of risk and three areas of interdependence that

[1] Numbers following quotations refer to the identification assigned to the participant.

they felt were significant in the process of accepting individual or group applicants. The perceived vulnerabilities were: potential incompatibility of political or social identity; damage to the organization's reputation or credibility; limited volunteer resources; threat of infiltration by agents opposed to network's goals; and technical security. In addition, the focus group participants felt that CMSAN and its members were interdependent in the areas of political or social identity, reputation and mutual support. These interdependencies heightened the perceived risks associated with the decision to accept new applicants.

CMSAN is a cooperative project where members rely on each other for political, social and economic support. Sharing a similar political agenda is an essential prerequisite for membership in CMSAN. The risk of applicants providing selective social action histories and agreeing to CMSAN's principles in an online form is that this provides limited evidence of true beliefs and actual behaviour.

> Granting someone membership in CMSAN means that you trust that they have agreed to the principles in good faith, and in practice. This is a risk particularly when a new member doesn't organize with other CMSAN members and lives far away from any place where CMSAN members live and organize, it is almost impossible to know whether the new member's work is actually in line with CMSAN's demands and CMSAN's politics. (4)

The focus group felt that the risk involved in relying on social identity information provided by the online application might open CMSAN to applicants whose incompatible social agendas could change the nature of the organization and undermine the group's political goals. Group applicants were considered to be less of a risk in terms of verifiable social identity. Other activist groups tend to have some known social action history and frequently have public statements of principle that can be assessed for compatibility with CMSAN's agenda.

> It was easier to consider groups, initially, because they could largely be assessed in broad terms on the basis of the known role and work done by the organization. (2)

A good reputation for collective social action projects and a solid base of credibility within the activist community are valuable assets for CMSAN's communication and education projects. The focus group felt that applicants were attracted to CMSAN because of its reputation for relevant social action projects and that the organization, in turn, was dependent on its members to continue to foster the network's credibility. At the same time, the focus group recognized that its reliance on computer-mediated interaction for their social action projects made this asset vulnerable. In the online environment, people are prone to make quick judgments about a person based on their textual communication (Walther, 1996). This judgment may then be generalized to include the organization to which the person is affiliated (Donath, 1999).

> When I see e-mail posts from people with CMSAN addresses I judge not only them but also CMSAN based on the content of those e-mail messages. So, when giving someone a CMSAN membership, CMSAN's reputation is at risk. (9)

The risk to the network's reputation underscored the importance of verifying an applicant's identity and social action goals. Here again, the focus group felt that group applications were easier to assess in terms of potential damage to CMSAN's reputation, since the applicant's reputation is public. However, when groups who are affiliated with CMSAN engage in political actions that negatively affect their own reputations, CMSAN's reputation by association may suffer.

> When groups using CMSAN do make politically problematic decisions or take positions that are messed up or incompatible with CMSAN's principles, the ramifications of those decisions are usually greater than when individuals do -- and (this sounds trite, but we are talking about reputation here) news of the ensuing controversy generally spreads quite broadly in the activist scene. (4)

CMSAN is dependent on volunteer labour and members' financial contributions to maintain its services and facilities. The membership, in turn, is dependent on CMSAN for information and communication resources. The focus group perceived that the organization was vulnerable to applicants who might take advantage of the services provided without contributing much in return. They felt that CMSAN's political identity and reputation had an influence on the membership's willingness to support the organization.

> For whatever reason, CMSAN has a certain cred [credibility] to it within the white anarchist/anti-globalization/etc community, and by giving someone a membership we are stating to the rest of this community that they have our trust and are good to work with (to some extent). So if CMSAN does bad here...then CMSAN's cred [credibility] goes down, the ppl [people] that support CMSAN, do fundraisers etc., will value CMSAN less. (7)

CMSAN's vulnerability to infiltration by agents opposed to the organizations' political goals and the security of its technological resources were the other risks discussed by the focus group. The participants perceived that social action groups were always vulnerable to infiltration, whether groups conducted their activities online or off. However, since computer-mediated interaction supports a certain plasticity of identity, this risk was seen as being more significant for online social action groups.

> When a stranger comes to us and asks for an account (or even comes physically to a collective meeting), it is difficult for us to know whether that person is honestly an activist interested in involvement or somehow involved in law enforcement or state intelligence gathering. As an activist,

> that is a risk with all types of activism, though once you add the "online" component where you may never meet someone face to face, it's even an easier target for infiltration. (8)

In addition, since CMSAN provides computer-mediated resources for numerous local, national and international activist groups, an infiltrator could potentially gather not only information about CMSAN but also information about other groups affiliated with CMSAN. The security of CMSAN's information and communication resources was seen as a ubiquitous risk, as the participants believed that technological systems could never be made totally secure. Although these vulnerabilities were felt to be serious, the focus group participants concluded that beyond verifying applicant identity, little could be done to minimize these risks.

Direct observation of the face-to-face discussion of new applicants supported the focus group's perception of the organization's vulnerability and interdependence in the areas of political or social identity, organizational reputation and, to a lesser extent, volunteer resources. Although potential infiltration by persons or groups opposed to CMSAN's political agenda and security breaches were frequently raised as concerns in the general meetings, these risks were not addressed in any discussion of new applicants.

Conditions for Initial Trust Formation

The focus group participants agreed that compatible social or political identity was a significant factor in their initial decision to trust an applicant. They felt that online information about a prospective member's activist involvement, descriptions of their social justice concerns, and their response to the organization's statement of principles influenced their intention to accept the applicant.

> I would look for familiar flags to start swaying my trust level. Information about the specific political work the group does, or that the individual does –i.e., the name of the group, its basis of unity (that should then be compatible with CMSAN's), what campaigns the group has undertaken, or what sort of campaign the individual is working on, how long the group has been around. (2)

Social identity information was felt to be of equal importance for group or individual applicants. However, group applicants' were thought to be easier to assess since other activist groups frequently have their own statements of principle that can be assessed for compatibility with CMSAN's agenda.

> Groups I would tend to be more aware of their existence or politics/work and could make a decision a little faster. I would also feel more trustful that they would be making use of their account to do good activist work;

> whereas individuals would have to show a lot more on their applications for me to trust them. (7)

Since CMSAN relies on its members for political, social and economic support, several focus group members felt that applicants, who acknowledged the interdependencies inherent in social action projects and who were inclined to engage in some form of support for the organization, would be viewed more favourably for membership.

> As has already come up in people's comments, promises of specific sorts of tech labour and particularly of regular financial support would seem to make new membership applications more appealing to the folks who take on the task of approving them. (5)

Online Information Is Not Enough

Although online information about social or political identity and an applicants' commitment to support the organization were perceived to have an influence on the deliberations to grant membership, they were not considered sufficient for initial trust formation.

> As far as people joining online, if I have never heard of the person or group before, I come from an initial position of distrust -- and I think that's probably true of many of the people in CMSAN. (6)

> It really comes down to who you know and what you or your organization is known for. (2)

Reputation and third party information acted as substitutes for direct knowledge of an applicant's identity and trustworthiness. Reputation was thought to be an easier criterion to use for group applications.

> Organizations are a little easier, because in most cases they have been around for a little while, or are operating in our cities. To the extent that groups have a 'reputation' that can be 'checked out', I am more willing to extend initial trust to that group. (10)

The focus group members felt that individual applicants needed to provide references from known and trusted CMSAN members in order to be seriously considered for membership. In addition, applicants who were members of known groups were perceived to be trustworthier.

> If a person fills out an application, and provides a CMSAN worker or other known CMSAN member as a reference, it makes it much easier to check out and ensure that the person is who they say they are, and is engaged in the type of work we want to support. I really want to know from

> individuals, who aren't referred, what organizations they have been a part of – again it helps in checking them out. (4)

At the face-to-face meetings, individual applicants were carefully assessed for shared social identity, their social action history reviewed in detail. CMSAN members were particularly interested in whether an applicant was affiliated with any activist group, and if they were, whether this group shared CMSAN's social and political values. Five of the eleven individual applicants were accepted based on their being known and vouched for by at least one CMSAN member present at the meeting.

The remaining six unknown individual applicants had all provided references or details of their social action group affiliation. Five of these applications were stayed pending further verification of their references and group membership. In the case of one these applicants, the members felt that minimal verification was needed, since the group with which that person was affiliated had solid credibility with CMSAN. The last unknown individual applicant was denied membership, as her affiliation with a non-reputable group raised suspicions of her reliability.

Group applicants' social identity information generated less discussion, as the members were familiar, at least through reputation, with the political work and social identity of all but one group. Four of the six group applications were accepted on the basis of their reputations for credible social action projects. One group applicant, a new social action organization was put hold pending further information about their social action agenda. The last group application, described below, necessitated further negotiation.

Mutual support was not a significant factor in the face-to-face discussion of new applicants. CMSAN members appreciated applicants' offers of support; however, this was only a significant factor in the deliberations concerning one group applicant and only because the prospective member was asking for extended service. CMSAN members appeared to trust this group based on their social identity and reputation. Their concern was about CMSAN's capacity to provide service with the admittedly limited financial and labour support available from the prospective group applicant.

Discussion

In the physical world we respond to a wealth of cues that indicate a person's identity. The online environment provides limited identity cues and its reliance on text-based communication allows participants to limit or manipulate their identities and social histories (Donath, 1999; Gurak, 2001; Turkle, 1995; Walther et al., 1994). The resulting identity plasticity can be a significant challenge for the development of trust in online relationships. It is difficult to trust disembodied strangers, whose identity information cannot be verified (Kollock, 1999).

Social identity has been described as a significant antecedent for initial trust development in social action groups (Brewer, 1999; Kramer, Brewer, & Hanna, 1996; Simon et al., 1998). Decisions about compatibility of social identity depend on our ability to assess the similarities we share with other people; that is, the relationship between their goals and ours (Hogg, 1992). Since an online environment can favour individuals who manage their self-presentation to emphasize their affinity with an organization (Postmes et al., 1998; Walther, 1996), it may be difficult to evaluate a person's true motivations and intentions.

CMC's capacity to support varying degrees of identity plasticity challenged CMSAN's initial trust formation process. The risks and interdependencies inherent in the organization's social action projects combined with the limited identity cues available in a computer-mediated context influenced not only the organization's choice of trust antecedents but also where these trust pre-conditions were found.

The primary risks and interdependencies that impacted the decision to trust a new applicant to CMSAN were perceived as issues of social identity, reputation and concerns over labour and financial support. These three themes were evident in the focus group responses and, to a lesser extent, in the direct observation component of the study. CMSAN's use of computer-mediated communication for their application process and the potential for identity plasticity heightened the perceived risks and interdependencies associated with the assessment of compatible social identity and the maintenance of a positive reputation, reinforcing the importance of anchoring an online identity to a real person or to a bone fide social action group.

Social identity, reputation, and third-party trust were the primary antecedents that influenced CMSAN's initial trust of new applicants. Online information from applicants provided cues for shared social identity; however, this information was insufficient to extend initial trust to prospective members. CMSAN's social action projects and its affiliation with organizations that engage in direct action required that an applicant's identity and politics be verified offline. Ultimately the decision to trust an applicant was based on the reputation of the applicant or as a result of third-party endorsement by a known and trusted colleague.

Group applicants proved to be easier to accept for membership because of their public social identities and reputations. A group's reputation not only provided sufficient identity verification, it also provided some indication of future behaviour (Axelrod & Douglas, 1988). A social action group's reputation is a valuable asset that is built slowly over time. Reputation has a significant impact on a social action group's ability to recruit new members and to solicit financial contributions. Group applicants would not derive any benefit from identity manipulation. CMSAN could extend initial trust towards a group applicant since this prospective member had more at stake in maintaining their own reputation, than did an individual applicant. The trustworthiness of unknown individual applicants was

more difficult to assess and required verification by trusted colleagues who were part of CMSAN's real world social and political networks.

The organization's concerns about limited resources and mutual support were frequently raised in both the focus group and in the face-to-face meetings. The focus group perceived these issues as both risks and interdependencies that affected initial trust formation. Mutual support and strained resources were topics of concern at the face-to-face meetings; however they did not impact the decision to trust a new applicant. For CMSAN, initial trust formation may precede mutual support. The formation and testing of initial trust may facilitate the sharing of enough reliable information and resources to allow for the future development of reciprocal relationships.

Implications for Future Research

CMSAN is but one example of the growing number of social action organizations that are using the Internet to support their political projects. Other online activist groups may be subject to different vulnerabilities and interdependencies that could affect their choice of trust preconditions. Trust is contextual. The relative influence of the different trust antecedents may vary depending on the purpose of the organization. Social action groups that use CMC primarily for mass communication may perceive their risks and interdependencies differently than grassroots organizations that employ electronic communication to plan their political activities and mobilize their members. Activist organizations that are engaged in persuasive political campaigns may have different initial trust requirements than groups who are committed to more confrontational strategies. Further research is required to examine the impact of information and communication technology on initial trust formation across contextually diverse computer-mediated political communities.

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