Swift Trust - State-of-the-Art and Future Research Directions

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Introduction

In 1996, the year after Fukuyama (1995) published his major work on the role of social trust in the economic development of various societies, Kramer and Tyler edited an important collection of articles in the book, *Trust in Organizations.* In this volume Meyerson, Weick and Kramer introduced the concept "*swift trust,*" which they argued applied to the rapid emergence of trust in temporary groups or what they referred to colloquially as "organizational one-night stands," during which important, but finite, tasks are accomplished often by relative strangers with varying degrees of success.

They list the significant characteristics of such groups and indicate how traditional conceptions of the development of trust generally fail to capture the ways trust functions in these more temporary forms of organizing.

In this chapter we review briefly the nature of swift trust as conceptualized by Meyerson, et al. (1996) and the empirical work that has attempted to test some of the propositions they laid out. In addition, we comment on the limitations of this conceptualization and how new organizational phenomena require us to extend their work to capture innovative efforts in many domains that also exhibit rapidly forming or "swift" trust among those who engage in these enterprises. We discuss whether this conceptualization applies to knowledge creation activities, among other types of activities, in various settings (referred to as "fast trust," see Blomqvist, 2002 and 2005; Blomqvist & Cook, 2014).

The influential article written by Meyerson et al. (1996) twenty years ago describes swift trust as "a unique form of collective perception and relating that is capable of managing issues of vulnerability, uncertainty, risks, and expectations" required in temporary systems where "familiarity, shared experience, reciprocal disclosure, threats and deterrents, fulfilled promises, and demonstrations of non-exploitation of vulnerability" are not typically available (Meyerson et al. 1996, 167). The focus on temporary systems is significant because since the mid-nineties there has been a steady increase in the range and extent of activities and tasks handled by teams of people (often strangers) brought together, both within and between organizations, for

brief periods to accomplish their goals. There has also been rapid growth in the connections between those within and between organizations as networks increase the potential for creative linkages between individuals and groups to work together across boundaries - virtual, physical and cultural in nature.

Trust is generally most likely to have the greatest effect in situations in which weak organizational structures exist and where risk, uncertainty and complexity are prevalent (Dirks & Ferrin, 2001). Trust enhances coordination among team members and strengthens their commitment to the accomplishment of shared goals (Dirks, 1999; De Jong & Elfring, 2010). Trust is clearly important for coordination and cohesion in ad hoc temporary organizing activities, but as Meyerson et al. (1996) suggest, its bases may be different from those in more traditional organizational settings where relationships are more structured and conditions more stable or static.

Temporary organizing efforts usually lack the characteristics of more established social systems with traditional sources of trust such as familiarity, shared experience, reciprocal disclosure, threats and deterrents, fulfilled promises and demonstrations of non-exploitation of vulnerability (see Meyerson et al. 1996, 167). They typically consist of individuals who come together to address a specific need or solve a problem. These individuals are selected for the team due to their specific expertise and skills, do not necessarily know each other on the basis of past encounters, and may not work together again in the future. Often they have a short time frame in which to accomplish the task and they need to begin action immediately as demonstrated in swift starting

action teams, referred to as "SWAT" (Meyerson et al. 1996; Wildman et al. 2012; Bakker, 2013).

Temporary teams have actually been a common mode of organizing for some time in many project-based industries such as those involving construction and film (Goodman and Goodman 1976; Bechky, 2006), advertising, consulting and software development (e.g. Scarbrough et al. 2004), research and development (R&D), and in flight crews, combat groups and emergency response teams (Weick, 1993; Grabher 2002, Wildman et al. 2012; Bakker 2010 and 2013). These modes of production have often involved the emergence of "swift" trust among those engaged in the activity, since the individuals brought together to accomplish the task at hand may be new to one another and are typically reassigned on the basis of needs or roles and may not interact again.

In the current environment, the development of digital and social technologies make temporary organizing an increasingly lucrative option for firms interested in tapping into dispersed and specialized knowledge across organizational borders. The knowledge-intensification of products and services together with global competition have led to widespread interest in new forms of organizing knowledge-based production such as open innovation (Chesbrough, 2003; Boudreau & Lakhani, 2013), online communities (Faraj et al. 2011) and crowdsourcing (Afuah & Tucci, 2012). Thus, the rapid formation of teams to accomplish specific tasks clearly extends beyond emergency efforts to respond to critical events and other activities that support

the rapid deployment of expertise to accomplish an important task, often outside of standard organizational structures.

Even if technology plays a crucial role in efficiently connecting and facilitating the work of individuals and teams with dispersed knowledge and expertise, the human element is still the key differentiating factor determining success in knowledge-based, highly competitive environments. Ad hoc forms of organizing expertise and the use of digitalization to facilitate it are very challenging for firms, as well as for individuals, because of the lack of organizational structures, processes and cultures, not to mention "standard operating procedures". Increasingly, complex tasks require interdependence, a willingness to be vulnerable and an ability to rely on each other, especially under tight time constraints. The role of trust is further accentuated in knowledge-intensive contexts where trust is required for individuals to even begin to disclose their knowledge and to rely on one another's expertise (Gillespie & Mann, 2004; Holste & Fields, 2010). While trust is essential under these conditions, its evolution is not guaranteed. On the contrary, the lack of interpersonal familiarity and the existence of very tight time limits, as well as the technological mediation of communication, make the evolution of trust challenging.

Despite its popularity, it is not clear how applicable the current conceptualization of "swift trust" is to relatively new business environments characterized by globalization, rapid technological change, and the necessity of continuous innovation. In our conclusion we discuss whether the original conceptualization of "swift trust" should be

broadened to encompass these new forms of organizing, or whether a new concept should be developed that is more appropriate for explaining rapidly evolving trust and cooperation in the domain of knowledge-intensive enterprises. We first analyze some of the past empirical research on swift trust at the team level. Then we discuss recent conceptual and qualitative research on trust to help us evaluate the boundaries of swift trust and its applicability to new domains of temporary organizing in the innovation context, and we conclude with suggestions for further research.

Swift Trust: A Review and Commentary

Conceptualization of Swift trust

Meyerson et al. (1996, 191) defined swift trust as *a unique form of collective perception and relating that is capable of managing issues of vulnerability, uncertainty, risk and expectations.* Swift trust, they argue, is "more a cognitive and depersonalized action form of trust than interpersonal and there is less emphasis on feeling, commitment, and exchange" (Meyerson et al 1996, 191). According to them, "groups that have more time for their tasks also have more time to develop complex relations that may become problematic". They suggest that behavioral expectations should be defined more in terms of tasks and specialties than personalities and that relationships in a temporary system are among role occupants as much as between individuals with distinct personalities (Meyerson et al. 1996, 173). The bounded nature of the temporary group focuses the mind on the task at hand thereby keeping interpersonal relations less complex (Meyerson 1996, 190).

The term, "swift trust," was coined to apply to temporary systems defined as "a set of *organizational actors* working together on a complex task over a limited period of time" (Meyerson et al. 1996, 168; originally used in Goodman & Goodman 1976, 494). The characteristics of temporary systems relevant to swift trust formation include: the existence of participants' clear roles, diverse skills, limited history and prospects of working together, as well as being part of a small pool of talent often from overlapping networks, working on non-routine (unique) and complex interdependent tasks that require continuous interaction, clear deadlines and explicit goals (Meyerson et al (1996: 169, 173, 181).

In such contexts the inherent vulnerability, uncertainty and risks involved must be managed together with the mutual expectations of the participants. The authors suggest that: "*trust must be conferred presumptively ex ante*" (Meyerson et al. 1996, 170). The temporary system characteristics required for the emergence of swift trust are viewed simultaneously as potential sources for building trust. Given vulnerability, individuals may cultivate alternative partners, projects and networks. They may also cultivate their adaptability and feeling of mastery, being able to handle anything; or they may presume that others are trustworthy, possibly initiating a positive trust-building cycle. In addition, individual reputation and the prospect of future interaction (if it exists) enhance their willingness to build trust and to be trustworthy. Role clarity also facilitates trust building in such time-constrained situations in which strangers come together relatively quickly to jointly accomplish a task.

The Meyerson et al. (1996) article is in many respects surprisingly timely despite being published twenty years ago. These authors clearly identified the changing nature of temporary systems characterized by intensified competition requiring immediate adaptability, the rise of network based organizations, an increase in the number of temporary workers, and time compression (Meyerson et al. 1996, 169). In the following section we discuss some of the most notable empirical research on swift trust[1]

Empirical Studies of Swift Trust

In one of the early empirical papers on swift trust, Iacono & Weisband (1997) studied fourteen student teams in three universities carrying out interdependent tasks. Their findings indicate the importance of *initiating interaction, responding to one another, a*nd the *frequency of interaction*. They also found that a focus on *work content* and sufficient *social penetratio*n during the early phases of the project increased the teams' work effectiveness. In a subsequent study of global virtual student teams, Jarvenpaa et al. (1998) were the first to show that the perceptions of other team members' *integrity and ability* were more important than assessments of their *benevolence* in building team trust. They also discovered that members' *own propensity to trust* had a significant positive effect on trust. In a related study, Jarvenpaa & Leidner (1998)

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[1] In selecting the articles for review (included in Table 1 in Appendix 1) we searched for articles published after 1996 in which swift trust was one of the key concepts or mentioned in the abstract. This yielded over three hundred article abstracts, which we reviewed to find empirical work on swift trust, preferably in which there were propositions about swift trust. In line with Meyerson et al (1996) our primary interest was swift trust in teams. Given this focus we excluded literature from the e-commerce context. Because the number of empirical studies about swift trust in teams was scarce we added selected conceptual and/or qualitative articles not specifically including propositions on swift trust, but enhancing our understanding of the nature of rapidly evolving trust.

emphasize the fragile and temporal nature of swift trust, indicating that better *communication about the project and the relevant tasks* clearly helped create and maintain trust.

Following Jarvenpaa et al. (1998), Kawanattachai & Yoo (2002) subsequently investigated international MBA students' business simulations of cross-functional teams revealing that virtual teams developed a higher degree of *cognition-based trust* than affect-based trust. They also found that the cognitive dimension of swift trust was positively related to team performance and that high-performing teams that established trust quickly were better at developing and maintaining high-levels of trust throughout the project. Extending this work, Robert et al. (2009) conducted a vignette study of distributed student teams and showed that *category-based processing* of team member characteristics and an individual's own *disposition to trust* dominated the initial formation of swift trust. They also found that once individuals obtained sufficient information to assess a team member's trustworthiness, the effects of swift trust declined and trust based on knowledge of their team members' behaviors dominated.

The more recent Crisp & Jarvenpaa (2013**)** study of global, virtual, ad hoc student teams enhances our understanding of the normative action components of these situations, such as *standard setting and monitoring* that helps to maintain the more fragile, early trust beliefs that form. They also discovered significant paths from early trust beliefs to normative actions, and from normative actions to later trusting beliefs,

indicating the important mediating role of actions that establish and enforce norms, which then sustain trust.

Most of the existing empirical research on swift trust is carried out with student teams in experimental settings, however, there are some interesting field studies. Chuboda & Maznevski (2000), for example, study three global, virtual teams including those from a large U.S. manufacturing firm and its strategic partners. They show that effective teams fit their communication patterns to the task and generated a deep rhythm of face-to-face communication interspersed with periods of remote communication. A related ethnographic field study by Kotlarsky & Oshri (2005) of two globally distributed, software development projects emphasizes *collaboration as renewing the set of relations* between globally distributed project members through continuous participation and engagement. Later Sarker et al. (2011) studied two distributed hybrid student teams engaged in developing information systems applications for real clients. They discovered that *communication and trust work together* to influence performance, supporting previous empirical work on swift trust.

Based on a conceptual study of swift trust in a humanitarian aid supply network, Tatham and Kovacs (2010) argue that the antecedent conditions influencing the formation of trust include *third party information, dispositional trust, rules (including contracts, processes and structures), categories, and roles*. Wildman et al. (2012) integrate research on trust into a theoretical framework to describe how individual team member's trust towards their team builds based on cognitive, affective,

behavioral and contextual perspectives. They suggest that trust-related schemas and emotional reactions together mediate the relationship between surface level cues and individual-level trust in the team. Individual team members' propensities to trust have a direct effect, and imported information moderates the relationship between these surface-level cues and the mediators (Wildman et al. 2012: 4). Later Bakker et al. (2013) found in their experiment on creative teams that short-term project teams used more heuristics in their decision-making. They suggest that time pressure may lead to category-driven information processing and confirmation, rather than accuracy and in the limited time available evaluation seems to be based on surface-level cues such as group membership (Williams, 2001) or third-party trust (Wildman et al. 2012**).**

Swift trust has been studied conceptually, qualitatively and quantitatively through the use of surveys and experiments. In the virtual context, researchers have primarily used surveys, complemented with participant observation and qualitative interviews (Jarvenpaa et al. 1998; Wilson et al. 2006), but they have also employed trust games and other experimental settings to investigate trust in teams (Piccoli & Ives, 2003).

The bulk of the empirical research on swift trust, however, has involved students solving relatively complex tasks requiring interdependence. Using students as the primary research population has allowed stable conditions for comparable research designs and experiments. However, the composition of student teams often lacks certain types of diversity, a limitation of the existing work on swift trust for its applicability to newer forms of organizing. Diversity is an important condition especially

for knowledge creation and innovation, yet it is challenging to study with research designs that use groups of students as the main source of data. Longitudinal empirical research is helpful since it employs research designs in which trust is measured before and after various experimental interventions (e.g. exercises in which students can familiarize themselves with each other and/or evaluate each other's trustworthiness based on a pilot task they engage in prior to the experimental manipulation).

The studies we have cited have provided some valuable information concerning how trust can be intentionally built over time in virtual teams. However, Piccoli & Ives' (2003) longitudinal experimental study on virtual student teams demonstrates that behavior control mechanisms such as reneging and incongruent behavior revealing a failure to meet obligations had negative effects on trust in virtual teams by increasing vigilance that makes trust failures more salient. These authors point to a significant managerial dilemma: any managerial intervention that increases salience and vigilance may actually weaken virtual team trust.

What do we know in general about swift trust based on past research? First, the existing empirical research on swift trust confirms the proposition that the *trustor's disposition to trust* has an impact on swift trust. The important role of the trustor's generalized trust can be understood in light of the trustor's limited information concerning the trustee's behavior in the early phases of collaboration.

Second, empirical research supports the Meyerson et al. (1996) idea that *swift trust is founded primarily on cognition* instead of affect. Of the trustee's attributes that reveal their trustworthiness, empirical research confirms that the *ability and integrity* dimensions have an effect on swift trust, whereas benevolence does not. It has been proposed that ability and integrity are more general and somewhat easier to evaluate with less information and time, whereas benevolence is relationship specific and requires more information, interaction and experience to assess (Wildman et al. 2012). This reasoning is in line with the collective and role-based nature of swift trust as portrayed by Meyerson et al. (1996). Further, the technology-mediated virtual team research setting, as well as the tasks examined, may be more conducive to acquiring cognitive rather than affect-based information.

Third, in line with Meyerson et al.'s (1996) original characterization of swift trust, empirical research strongly supports the role of *communication* as an important antecedent of swift trust. Researchers emphasize especially early, frequent and proactive communication, e.g. *initiating and responding behavior*, and factual communication about the *project, work content and the tasks involved* as means to increase the effectiveness of teams.

Fourth, for strong team performance it has been found important that trust needs to be established quickly. Fifth, because of its fragile and temporal nature, trust also has to be maintained actively throughout the project. Building *norms for communication and behavior*, such as *standard setting,* has been found to maintain swift trust.

Sixth, despite the emphasis on role-based trust and task-based communication, the existing qualitative research indicates that *relational communication* could strengthen emerging swift, yet fragile, trust, and have a positive effect on knowledge sharing (Kotlarsky & Oshri, 2011) and task performance (Adams et al, 2007). For example, Iacono & Weisband (1997, 412) report that teams with a high level of trust actively engaged in *socialization* and that *both cognitive and affective-based trust* were present in such teams. Based on their qualitative data, Jarvenpaa et al. (1998) suggest that *positive tone* and *empathetic task communication* reinforce trust. The Adams et al. (2007) study on swift trust in military simulations reveals that individuating information and the sharing of identity had positive effects on the rate of trust formation, as well as on task performance. In a similar vein Jarvenpaa & Leidner (1998) found that *sharing personal information* at the beginning of the project was related to high initial team trust.

Finally, based on longitudinal studies of virtual teams it was also discovered that once individuals obtained sufficient information to assess a team member's trustworthiness, the effects of swift trust declined and trust based on knowledge of their team members' behaviors became dominant.

More recent conceptual studies of swift trust emphasize the role of *third party trust* and rules, such as contracts, processes and structures. This theorizing includes more complex models including mediating and moderating relationships. In addition, team

members' emotions, not addressed much in empirical studies in virtual team contexts, are emphasized in theory development.

Studies carried out in various contexts reveal different aspects of swift trust providing a richer view of the phenomenon. It is interesting to note how the Meyerson et al. (1996) original definition of swift trust tended to dismiss consideration of the feelings, commitment and exchange so central to human social interaction by noting that swift trust is "more a cognitive and depersonalized action form of trust than it is interpersonal" (Meyerson et al 1996, 191).

Twenty years ago the idea of rapidly evolving trust was highly novel and it may be that the de-emphasis of the more relational aspects of trust building can be partially explained by the specific time constraints and task conditions they focused on, as well as by the dominant understanding at the time that trust evolves mainly through gradual risk-taking and learning. The original theory of swift trust partly draws its novelty from showing that in time-constrained contexts trust evolves without relational investments that were viewed as costly and as potential sources of friction. As noted by the authors: "Moreover, there isn't time to engage in the usual forms of confidence-building activities that contribute to the development and maintenance of trust in more traditional, enduring forms of organization" (Meyerson et al. 1996, 167). Instead, "in temporal organizations members manage their vulnerability by cultivating adaptability, feelings of mastery, alternative partners, and by presuming that others are trustworthy" (Meyerson et al. 1994, 172).

The authors do not discuss knowledge-intensive collaboration, accentuated more recently in contemporary contexts, yet they do pay attention to context by noting that the nature of the task interdependence and the vulnerability involved may be enough to trigger the rapid development of trust (Meyerson et al. 1996, 175). This discussion reflects their specific notion of swift trust. In the past few decades there has been less research on the role of emotions and trust in organizational contexts (with some exceptions, e.g. Williams, 2001) and only relatively recently has there been a call for more research on the relationship between emotions and trust in the organizational context (Schoorman et al 2007).

The role of trust depends on the nature of the tasks involved as well as the situation. Much of the research on trust is carried out in virtual contexts where the computer-mediated nature of the communication tends to depersonalize the interactions. Knowledge-intensive creative tasks may require more or different types of trust than other types of tasks. Some situations provide more information concerning trustworthiness than others do.

We expect that the depersonalizing effect of computer-mediated-communication, as well as the changing nature of the tasks and the participants involved, will affect the emergence of swift trust and its impact (for more on the contextual nature of trust, see Lewis & Weigert, 1985; Rousseau & Fried, 2001; for trust in the Internet see van der

Werff et al., this volume). Next we discuss these changing contexts involving new types of organizing efforts as well as the applicability of the notion of swift trust.

Extending Swift Trust to New Domains of Organizational Activity

In this section we identify some potential directions for future research based on the nature of current business environments and an increasing focus on knowledge-intensive products and services. To illustrate the changing nature of trust and its application at both the dyadic and community levels, we briefly outline ongoing research on rapidly evolving trust in encounters between Silicon Valley investors and start-up founders (e.g. Blomqvist & Cook, 2014), as well as research on experts solving complex problems on a digital platform (Blomqvist et al. 2015). We reflect on the implications of changes in the contemporary business context for rapidly evolving trust and whether such phenomena require a broader conceptualization of swift trust. In the process, we identify some of the weaknesses or limitations of the existing conceptualization.

From organizational relationships to interpersonal relationships

Meyerson et al (1996) focused on temporary systems defined as "a set of *organizational actors* working together on a complex task over a limited period of time" (Bakker 2010, 468; Meyerson et al. 1996). Goodman & Goodman (1976, 492) emphasized the diverse set of individuals involved in the theater context identified as: "a set of *diversely skilled people* working together on a complex task over a limited period of time". A focus on the interpersonal context is relevant in the current

environment in which the rapid development of IT-based and social technologies has made it possible and increasingly common for individual agents (often not affiliated with specific organizations) to engage in temporary groups to solve ad hoc tasks on digital platforms (e.g. Yoo et al. 2012).

From cognitive to affective based trust

As discussed earlier, rapidly evolving "swift" trust is conceptualized as being based on cognitive processes, not on affect. However, the increasing knowledge intensiveness of team tasks calls for affect-based trust that enables individuals to share ideas and discuss personal insights derived from their tacit knowledge. Affect-based trust provides the relational space often required for such creative interactions and the generation of new knowledge essential to the production of innovative outcomes. Interestingly, it is not only the intensification of knowledge, but also the rapid development of complex mediating technologies, that requires an emphasis on the role of emotions in heuristic decision-making regarding trustworthiness, as argued in the van der Werff et al. chapter on trust in the Internet in this volume. Current research on trust and fairness (see Chapter 10 by Lind, this volume; also Chapter 14 by Tomlinson, this volume re: causal attributions of trustworthiness) indicates that early assessments of the fairness and integrity of the actors involved is also key to whether trust develops. Lind (this volume), in reviewing the relevant evidence, notes that fairness heuristics are typically used as early clues to the potential trustworthiness of others, especially of those in authority relations. Clearly, future research should focus

more on affect and the emotional components of swift trust, de-emphasized in earlier work (with a few exceptions, e.g. Wildman et al. 2012).

To support this line of inquiry we note that Jarvenpaa & Leidner (1998), based on qualitative data, find that empathetic task communication and the adoption of a positive tone had a positive impact on team processes and outcomes. In addition, some of the early research on temporary forms of organizing indicates that interpersonal liking is an important factor in team leadership (see Bakker, 2010). The role of emotions and positive affect is accentuated especially in the case of relatively demanding, creative tasks and contexts that focus on innovation (Blomqvist & Cook, 2014).

From pre-specified contributions to creative collaboration requiring tacit knowledge
Empirical research on swift trust, as noted above, has mainly dealt with student teams working on interdependent tasks such as the development of business plans. These teams tend to lack the full range of characteristics that define collaborative, creative teams. Creative teamwork involves building synergy across domain specific knowledge, the continuous generation of ideas, and very few pre-specified contributions (Malhotra et al. 2001), as might be involved in more routine role-based tasks. In line with Malhotra et al. (2001) we argue that the continuous pursuit of innovation and the need to focus on solving complex problems in the current environment requires new ways of working given the open-ended nature of the tasks

at hand, instead of the enactment of pre-planned modes of operation (and/or role based performances) that tend to assume the existence of more predictable tasks.

From clear to more ambiguous expectations

Meyerson et al.'s (1996) definition of swift trust in temporary teams involves clear tasks and explicit deadlines. Wildman et al. (2012: 2) describe the immediate and urgent nature of task performance as the defining characteristic of swift starting action teams as they perform the relevant task "almost immediately" upon team formation. Meyerson et al. (1996, 175) suggest that trust in temporary systems can develop swiftly because the expectations that are invoked tend to be general, task based, plausible, easy to confirm, and stable.

In contemporary business environments, in contrast, ad hoc teams may start to collaborate without a clear task. In expert communities, such as those involved with *Ideo* and *Solved* that apply design-thinking methods, complex problem solving may begin with a "define" phase during which participants make sense of the task before actually attempting to solve the problem. Sometimes experts start interacting even earlier, discussing the possible problem or opportunity before moving to the task definition phase. The unclear and more ambiguous nature of the task changes the focus and the temporal rhythm that is characteristic of the evolution of swift trust. Individuals' expectations may be more ambiguous and dynamic when they are not easy to confirm and not based on clear tasks or divisions of labor. This type of situation

involves greater uncertainty and risks that make us question whether swift trust, if it occurs, is sufficient in these contexts for efficient team collaboration.

More fluid than stable team composition

Digital technologies and platforms provide opportunities for the generation of fast product and service pilot projects that benefit not only the focal firms, but also their complementary ecosystem partners. The ambiguous nature of the complex problem to be solved and the technology involved leads to the formation of increasingly fluid temporary teams, where experts join and exit the innovation process along the way (Brandon and Hollingshead, 2004). The fluidity of these teams provides a challenge for the existing conceptualization of swift trust because it requires ongoing efforts on the part of team members to build reciprocal trust with new individuals who join the team, as well as a focus on maintaining team-level trust when the composition of the team changes. Roles and norms have to be continuously renegotiated and re-enforced. In addition, new member socialization has to be fast paced and effective.

From a limited to an unlimited pool of talent and less common ground

Meyerson et al (1996, 173, 181) explicitly list the characteristics of temporary systems that have an impact on the emergence of swift trust. One such characteristic is that the "participants are part of a limited pool of talent in overlapping networks". This fact creates fertile ground for trust in part because overlapping networks reinforce reputations and norms of trustworthiness. Globalization, together with the rise of the digital talent platforms, has changed the situation so that in the current business

environment there is an almost unlimited pool of talent and many of those willing to be engaged do not come from networks that overlap. As a result over time there may be more unfamiliar members joining the ongoing enterprise, much less third party "guaranteed" trust, and fewer social control mechanisms readily available as antecedents of swift trust.

The increasingly unfamiliar and heterogeneous nature of the actors joining these innovation efforts implies a need for different social, economic and legal relationships (Purvis et al. 2001; Yoo et al. 2012, see also Chapter 22 van der Werff et al., this volume). In many current business environments digitalization and the distributed innovation process increase the heterogeneity of the knowledge resources available through connecting distinct industries and previously unrelated bodies of knowledge. Such efforts require an understanding of how to integrate these heterogeneous knowledge resources derived from highly specialized professions and industries (Yoo et al. 2012; 1401). The complexity involved necessitates trust, even trust that emerges quickly, but it is not based on clear roles, standardized expectations, existing normative frameworks, or network-based reputations.

Based on our review of the concept *swift trust* and the subsequent empirical research on this topic, we have learned that swift trust is first and foremost about cognitive trust. This rapidly evolving type of trust is based on predispositions, heuristics, social categorization, active communication and actions supporting the heuristics or providing trust as a byproduct of action. Benevolence and affect have not been viewed

as part of swift trust, even if the complementary qualitative data (Jarvenpaa et al. 1998, Iacono & Weisband, 1997; Kotlarsky & Oshri, 2011; Adams, 2007) and conceptual research (Williams 2001, Wildman et al. 2012) indicate that affect-based trust may support high performance teams. In addition, our qualitative data from past and ongoing research in knowledge-intensive contexts such as R&D collaborations in small and large technology firms (Blomqvist 2002 and 2005), first encounters between start-up founders and investors (Blomqvist & Cook, 2014) and expert teams solving complex problems on digital platforms (Blomqvist & Cook, 2015) support the importance of affect in rapidly evolving trust between diverse and unfamiliar parties engaged in knowledge-intensive collaborations.

In qualitative research on a virtually operating expert community Blomqvist et al. (2015) find that experts have expectations beyond those that derive from cognitive trust concerning other experts as individuals and not just as occupants of particular roles. A more extensive form of trust based on affect, as well as cognition, enables them to share valuable tacit knowledge and to understand how to communicate in ways that enhance mutual understanding. While role-based trust and task-based communications may suffice for relatively tangible tasks, they do not suffice for intangible, creative and open-ended tasks in which participants need to engage as individuals, without the restrictions often produced by formal roles. These factors result in an increase in vulnerability and require stronger trust than that associated with role or task-based collaboration. Exchanging personal views, ideas and intuitions

under these conditions makes it possible to co-create or innovate based on participants' shared tacit knowledge.

In first encounters between start-up founders and investors, founders are very attentive to multiple cues and they analyze the *behavioral, cognitive and affect-based cues* given off by potential investors. Investors prefer to spend time only with founders they like and find coachable. Thus, *interpersonal affect* plays a key role in investor decision-making, which is, not characteristic of interactions that tend to be based on "swift trust" (Blomqvist & Cook, 2014).

We argue that the cognitive view of swift trust is too narrow especially for contemporary knowledge-intensive contexts in which knowledge sharing, co-creation and innovation have become the raison d'être for collaboration. Findings from recent research indicate that affect *complements but does not substitute for* the cognitive basis of rapidly evolving trust. The importance of affect is accentuated in time constrained situations since warmth and liking are often processed intuitively even *before* cognitive evaluations occur (Fiske et al 2007). Analytical evaluations of the competence dimension of trustworthiness becomes more difficult the greater the diversity of the parties involved. Positive affect may also be interpreted as a signal of goodwill trust providing a type of heuristic or set of cues concerning the perceived trustworthiness of the parties involved in the task at hand (Dunn & Schweitzer, 2005; Izard, 2009). In general, we view the findings concerning the bases of swift trust and its impact to be dependent on the research context. More field research in various

contexts could provide a richer view of the wide range of settings in which trust emerges rapidly and is central to task success.

Conclusions

The rapid pace of technological change and the increasingly dispersed nature of valuable knowledge makes it ever more important for individuals and organizations to make new connections, for which the ability to build trust quickly is a significant element of potential success. We expect that the time currently needed to develop trust through technology-mediated communication is likely to decrease due to the existence of media-rich communication platforms and applications that enhance virtual communication across space and time. The ongoing technological developments together with social media tools and the changing culture of communication provide opportunities for media-rich, multiplex communication that produces information concerning different bases of trust including personality and identity.

Further research is needed on the relational perspective and how parties learn of each other's personal identities. Meyerson et al. (1996, 173) note that: "people who enact roles in an innovative and idiosyncratic manner could incur distrust". Roles provide predictability, yet the contemporary need for continuous innovation calls for synergies through the creative combination of diverse and idiosyncratic thinking from agents acting as individual personalities, not only as role occupants. The focus on role-based trust is thus a limitation of the concept, *swift trust*, especially in the relatively new era

of knowledge-based innovation, since task-relevant roles are rarely fully explicitly defined *a priori* in such uncharted territory.

There is a great deal of practical interest in rapidly evolving trust not only among knowledge-intensive firms and knowledge workers, but also among those who develop digitalized business models such as those represented by TaskRabbit, Uber and Airbnb. Research on rapidly evolving trust has practical relevance in many types of online social interactions and transactions (e.g. among peers or P2P, consumers or C2C, businesses to consumers or B2C, and business to business or B2B) ranging from dating to the renting, selling, and even the sharing of goods and services (Sundarajan 2016; Parker et. al. 2016).

Automation, cloud technologies and artificial intelligence are predicted to replace up to 49% of the current jobs in Europe and the US (Frey and Osborne, 2013, see also McAfee & Brynjolfsson, 2014). During this shift, complex human abilities such as those involving interpersonal social skills and an ability to rapidly build interpersonal trust in face-to-face or online interactions are essential for a variety of human tasks. Studying individual mechanisms for coping with the management of vulnerability, risk, uncertainty and personal expectations in temporary freelance groups, could be highly relevant for those not only investigating, but also implementing digital talent platforms.

Furthermore, we expect that understanding the dynamics of rapidly evolving trust is essential for the continued development of social technologies enabling efficient and

effective, interdependent online collaborations. The more there is need for the interdependency, task complexity, and need for creativity, the more important is the ability to build trust rapidly. Finally, we expect that the most interesting and valuable applications come from combining trust-enabling social technologies with the high-level expertise of those equipped with the skills, values and norms to quickly build trust.

At its best rapidly evolving interpersonal trust makes cooperation more efficient and often personally satisfying. At its worst, if manipulated, it can also lead to opportunism and even distrust. The fast-changing context for work and business related social interactions requires revisiting our theories of trust and our assumptions about the evolution of trust. More fluid structures require quick assessments of trustworthiness and rapid trust building. Understanding these processes is likely to be increasingly useful and potentially very significant in an ever-changing global economy in which interactions and transactions are primarily digitally mediated. The work on swift trust opened the door to studying such phenomena. Now we need to extend that work and develop a broader conceptualization that will inform us about the terms of trust and its evolution in more complex, rapidly changing social and economic environments.

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Table 1. Selected research articles on swift trust

Reference	Conceptualization	Theoretical background	Research Context	Method & data	Task	Findings
Meyerson, D., Weick, K.E. & Kramer, R.M. (1996). Swift trust and temporary groups. In *Trust in organizations: Frontiers of theory and research*, 166 - 195	"A unique form of collective perception and relating that is capable of managing issues of vulnerability, uncertainty, risk and expectations". It is more a cognitive and depersonalized action form of trust than interpersonal, and there is less emphasis on feeling, commitment, and exchange" (Meyerson et al (1996, 191).	N/a	Temporary teams, mainly focus in F2F teams, illustrations from theatre and film industry.	Conceptual study with illustrations from practice and other studies.	Complex, non-routine (unique) tasks requiring interdependency and continuous relating	Paper is theoretical with illustrations from various contexts.
Iacono, C. S., & Weisband, S. (1997, January). Developing trust in virtual teams. In System Sciences, 1997, Proceedings of the Thirtieth Hawaii International Conference on (Vol. 2, pp. 412-420). IEEE.	A temporary, distributed work group as a group of people who must work closely together for a short period of time, learn from each other and accomplish specific goals, but for whom face-to-face contact is too costly or simply not possible most of the time.	N/a. Focus on naturally occurring communication in context. Communication is conceptualized as a social activity requiring the attention and interaction of two or more people.	Student teams from three US universities	A survey and discussion of analysis of 14 teams of students from three different universities	Interdependent work: research, write and present a five page policy paper	They analyzed team communication through discourse analysis as *initiations* and *responses* in communication interaction. They found that high levels of trust were maintained in teams that engaged in continuous and frequent interaction, were more efficient in moving through the phases of the project, focused on the work content of their projects, and achieved sufficient amount of social penetration during first part of the project (Iacono & Weisband 1997, p. 412).
Jarvenpaa, S-L; Knoll, K. & Leidner, D.E. (1998). Is anybody out there? Antecedents of trust in global virtual teams. Journal of management information systems, 429-64	Swift trust is based on broad categorical social structures and clear roles and later on action.	Meyerson et al. (1996) Swift trust	Global temporary virtual teams	8-week study where 3 virtual exercises given to 350 students forming 75 teams.	First two voluntary tasks to provide information of ability, goodwill and integrity, then to propose and present a www service or offering to global IS practitioners.	At first team trust was predicted more by predictions of other team members' integrity, and least by their benevolence. The salience of other members' perceived ability on trust decreases over time. Members' own propensity to trust has a significant effect on trust. High trust teams exhibit swift trust from the outset.
Jarvenpaa, S.L. & Leidner, D.E. (1998). Communication and trust in global virtual teams. Organization Science, 791–815	Swift trust is based on broad categorical social structures and clear roles and later on (depersonalized) action. Trust as the willingness of a party to be vulnerable to the actions of another party based on the expectation the other	Meyerson et al., (1996); McGrath (1991) Time, Interaction, and Performance (TIP) theory; Walther (1997) Social Identification/ Deindividuation theory (SIDE)	Global temporary virtual teams	8-week study with 3 virtual exercises given to 350 students forming 75 teams. (same as Jarvenpaa et al. 1999)		The results suggest that global virtual teams may experience a form of "swift" trust, but such trust appears to be very fragile and temporal. Communication about project and task appears to be necessary for maintaining trust. Social communication complementing task communication may strengthen trust.

	will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party. (Meyerson et al., 1996)					
Kawanattachai, P. & Yoo, Y. (2002). Dynamic nature of trust in virtual teams. *Journal of strategic Information Systems*, 11, 186-213.	Trusting other members from the beginning of the project, not on the basis of past experiences, but rather on the basis of their background, professional credentials and affiliations	Meyerson et al. (1996), McAllister (1995) on Cognitive and affect-based trust	Global temporary virtual teams	Web-based business simulation game with 146 MBA students of 10 nationalities forming 36 four-person virtual teams	A web-based strategic business simulation game where members of interdependent teams formed across functions make collective decisions.	Kawanattachai & Yoo's findings supported the role of cognition-based trust in virtual teams. They found first that virtual teams developed a higher degree of *cognition-based trust* than affect-based trust (H1). They also found that the swift trust in cognitive dimension was related to team performance (H2) and that the high-performing teams establishing trust quickly were better at developing and maintaining high-level trust throughout the project.
Kotlarsky, J., & Oshri, I. (2005). Social ties, knowledge sharing and successful collaboration in globally distributed system development projects. *European Journal of Information Systems*, 14(1), 37-48.	Key concepts are transactive memory and rapport	N/a	Distributed system development teams at SAP and LeCroy	An in-depth ethnographic study of globally distributed software development projects. A case study with 10 interviews from both companies	Distributed system development projects, no more information available on the tasks.	Based on their study of two distributed system development projects Kotlarsky & Oshri (2005, 45) argue that collaboration is about renewing the set of relations between globally distributed project members through continuous participation and engagement. They suggest creating social space between team members and introducing a variety of communication tools as well as clear communication procedures.
Robert Jr., L. P., Dennis, A. R., & Hung, Y-T. C. (2009). Individual Swift Trust and Knowledge-Based Trust in Face-to-Face and Virtual Team Members, *Journal of Management Information Systems,* 26(2), 241-2.	Category-matching process based on team member characteristics, not on their behaviors.	Meyerson et al. (1996); McKnight et al. (1998); Kramer (1999); Mayer et al. (1995)	Geographically and temporally distributed teams	Vignettes given to 203 undergraduate business students. Communication environment manipulated by describing the communication as occurring either f-to-f or through e-mail messages among geographically and temporally distributed team members.	Vignette scenarios on used to simulate teaming events related to swift vs. knowledge-based trust	Category-based processing of team member characteristics and an individual's own disposition to trust dominated the initial formation of swift trust. Once individuals got sufficient information to assess a team member's trustworthiness, the effects of swift trust declined and knowledge-based trust formed using team members' behaviors became dominant.
Sarker, S., Ahuja, M., Sarker, S., & Kirkeby, S. (2011). The role of communication and trust in global virtual teams: a social network perspective. *Journal of*	Trust as "the willingness of a party to be vulnerable to the actions of another party, based on the expectation that the other will perform a particular action	Authors call it networked individualism paradigm, a social network perspective	Distributed work teams	Two sets of distributed hybrid virtual teams engaged in systems development projects where teams worked	Student systems development projects for real clients	Sarker et al. (2011) test three proposed models (additive, interaction, and mediation) describing the role of trust in its relationship with communication to explain performance. They find that the concepts of communication and trust are inherently relational and

Management Information Systems, 28(1), 273-310.	important to the trustor, irrespective of the ability to monitor or control the other party". (Mayer et al. 1995, 712)			on developing (analyze, design, develop and test) IS application projects for real clients		not properties of individuals. They further argue that a social network approach is potentially more appropriate than attribute-based approaches that have been utilized in prior research, and suggest that the "mediating" model best explains how communication and trust work together to influence performance.
Crisp, C. B., & Jarvenpaa, S. L. (2013). Swift trust in global virtual teams: Trusting beliefs and normative actions. *Journal of Personnel Psychology*, 12(1), 45.	Swift trust as a cognitive and action form of trust.	Meyerson et al. (1996), Tajfel (1978), Social identity and self-categorization theories	Global virtual ad-hoc teams	8-week longitudinal quasi-experimental study of 68 ad hoc global virtual teams with 280 undergraduate students from four continents performing a virtual business plan exercise.	Writing a business plan for a new company related to b2b e-commerce	Crisp and Jarvenpaa (2013) show that early trusting beliefs have direct and mediated effects on late trusting beliefs. They found significant paths from early trust beliefs to normative actions, and from normative actions to late trusting beliefs. They further found out that late trusting beliefs had a positive effect on team performance, and that the relationship of team performance and late trusting beliefs was mediated by **normative action**s. High early trusting beliefs gave team members the necessary confidence to engage in normative actions, which became a sustainable basis of late trusting beliefs and performance.