

Advances in Distrust and Trust Research: Digital Technologies in Organizations and Beyond

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Abstract

Within the Hawaii International Conference on System Sciences (HICSS), we organize for the sixth time a mini-track on trust and information technologies. This year, the mini-track highlights distrust along with trust. Through the presentation of six papers and an open discussion, the mini-track participants will have another round of lively debate that involves a variety of modern day information technologies in contexts such as autonomous vehicles and blockchain environments, addressing topics such as (dis)trust and technology adaption, technostress, datafication, and trust transfer.

1. Introduction

This year, the mini-track highlights both trust and distrust. While trust is an established research area in information systems (IS), research on distrust is more limited. Even beyond the information systems field, compared to trust, our understanding of distrust – its antecedents, dynamics, and outcomes continue to be limited [5].

The current turbulent times have heightened the presence of distrust and called for an improved understanding. Distrust refers to negative expectations, whereas trust refers to positive expectations [11]. Further, these confident negative expectations are “a fear of, a propensity to attribute sinister intentions to, and a desire to buffer oneself from the effects of another’s conduct” [11, p. 439]. Govier [4, p. 34] writes about distrust, ...lack of confidence in the other, a concern that he or she may act so as to harm us, that he or she does not care about our welfare, intends to act harmfully, and will not abide by basic moral norms, or is hostile towards us.” Hsia [7] called the distrust originating from breaches or violations due to technical incompetence

“reliability-related distrust,” and distrust originating from cultural assumptions and social incompetence “value-oriented distrust.”

1.1 Distrust vs. Trust

Distrust is now recognized as a concept distinct from trust in both the IS and organizational literatures. Sitkin and Roth [16] as well as Kramer [10] note that trust and distrust have distinct configurations of beliefs, interactional dynamics, and causal mechanisms. There is now ample evidence that distrust is not low trust but constitutes its own construct with different antecedents, manifestations, and consequences [3,15]. Distrust can be much more consequential than trust as distrust can have much longer endurance. Distrust grows in cycles of negative reciprocal interactions and can spread far beyond the original targets [2]. McKnight and Chervany [12] write that “While trust is cool and collected, distrust is fiery and frenzied.” Hence, trust and distrust dynamics have a different logic.

1.2 Consequences of Distrust

Vast majority of studies on distrust in the IS and organizational literatures assume that distrust leads to dysfunctional behaviors that undermine each party’s efforts irrevocably [11, 15, 17]. High distrust can also lead to irrational and highly emotional behaviors [10]. Williams [18, p. 597] acknowledges, “When the potential for harm and loss exists, counterparts may cease to view a cooperative project as an opportunity for joint gain and may come to view it as a threat to their goals, concerns and well-being.”

Yet, in many other fields, distrust is seen benign and even constructive. Liberal political theory is founded on distrust of government. Hardin [6] discusses how distrust is not necessarily causing harm, but protecting from it, such as when parents distrust caretakers such as priests in the case of their children. The IS and organizational literature has also

begun to recognize the benefits from distrust [2, 8]. Jarvenpaa and Majchrzak [8] argued that in highly vulnerable situations, high trust and low distrust can create mindlessness. High distrust should be coupled with high trust to enable vigilant behaviour. They advocated the design of systems that promote both high levels of trust and distrust.

1.3 Processes and Mechanisms of Distrust

Komiak and Benbasat [9] develop a theoretical model and provide some empirical evidence of distrust-increasing processes. A process that is most associated with distrust building is awareness of the unknown, which makes people suspicious of others' motives. They speculate that to reduce distrust-building processes, the distruster must be allowed to fully express his or her awareness of the unknown and receive detailed explanations to his or her questions.

A number of scholars argue that when the distruster is strongly wary of the distrustee, the distruster regulates the behavior of the distrustee and, thereby, reduces or eliminates the injurious conduct or the impact of it [6, 16, 11]. Such regulatory behaviours include monitoring [11], control [1, 6, 11, 12], legal action [16], and hedging [13]. For example, Lewicki et al. [11, p. 446] indicate, "Distrusting parties may devote significant resources to monitoring the other's behaviour, preparing for the other's distrusting actions [14]." Legal action may involve restructuring the relationship in concern until it reaches a low level of uncertainty and vulnerability. Lewicki et al. [11] underscore that it is the distruster who engages in stringent controls or preemptive strikes. These behaviours focus on compartmentalizing and constraining the relationship so that the interaction can take place within parameters where distrust is less present, but they do not reduce distrust.

2. Accepted Mini-track Papers

The first mini-track paper studies the relationship of trust and distrust from the self-reported measurement point of view. The paper, entitled "The same or different? Investigating whether trust and distrust are orthogonal constructs or span a continuum" is authored by Capiola, Alarcon, Gibson, Jessup, and Hamdan. The paper finds that trust and distrust are on the continuum. We expect a lively debate as the paper challenges the current prevailing view of trust and distrust in information systems.

The second paper entitled "Painting a holistic picture of trust in and adoption of conversational

agents: a meta-analytic structural equation modelling approach" is authored by Anton, Oesterreich, Schuir, and Teuteberg. The paper synthesized the broad research on the technology acceptance model (TAM). Meta-analytic studies are imperative to our understanding of trust phenomenon as they are able to account for error variance in individual studies and more accurately approximate the true relationships of the variables. The authors synthesize research advancing the understanding of the variables of interest in the study but also the overall TAM. The findings from this study will influence future trust research on conversational agents and theoretical understanding of the TAM.

The third paper entitled "The impact of trust in technology on the appraisal of technostress creators in a work-related context" is authored by Zielonka. The paper examines the effect of trust in technology on the perception of technostress creators in a work setting, using data from 200 employees' experiences using online tools. The paper is well linked to the existing literatures of trust in technology and technostress. The authors found that both system-like trust and human-like trust significantly impact how people perceive technostress through technostress creators. They also pointed out that the higher trust people have towards online technology (Microsoft Team), the higher their job satisfaction is. Particularly in the context of Covid-19, the focus on human coping strategies with technostress is highly relevant.

The fourth paper entitled "Exploring the chemistry of datafication control – pathways for a trust-enabling use of smart workplace technology" is authored by Schafheitle, Weibel, and Rickert. This paper on a timely topic contributes to the discussion on datafication as means to enact organizational control, and how it relates to trust inside the organization. For this novel field authors provide an interesting contribution based on a survey data with less applied QCA method.

The fifth paper entitled "Understanding the necessary conditions of multi-source trust transfer in artificial intelligence" is authored by Renner, Lins, Söllner, Thiebes, and Sunyaev. The paper examines trust transfer in the context of autonomous vehicles. The authors argue that while the current academic debate on trust transfer is a promising perspective on trust in AI-capable technologies, the convergence of AI with other technologies challenges existing theoretical assumptions. The authors surveyed over 400 users of autonomous vehicles. They contribute to research by finding that both trust in AI and the vehicle technology are necessary trust sources for trust transfer. Their findings offer a more nuanced

view on trust sources as they consider the dual role of trust.

The sixth and final paper is entitled “Enhancing trust in trust services: towards an intelligent human-input-based blockchain oracle (iHIBO)” and authored by Yu, Xichichi, Markovich, and Najjar. Blockchain applications continue to be a nascent and growing area of applications. The paper is very timely as it proposes an integrated framework named Intelligent Human-input-based Blockchain Oracle (IHIBO) for formal argumentation and negotiation within a blockchain environment for making the decision-making processes of fund management transparent and traceable. The method is based upon widely used Dung’ framework for agent argumentation. The framework acknowledges that trust is a major challenge in the current state of blockchain applications and proposes some of the ways to alleviate obstacles.

3. Advice for Future Trust Researchers

We would also like to highlight some weaknesses that persist in trust research. These refer to conceptual, theoretical, and methodological aspects. Conceptually, papers would benefit from clearer and streamlined definitions and separation of concepts such as between trust and trustworthiness or trust and control. There are often weaknesses in the theoretical background as well. By now there is a large body of research on trust including information systems and research can be strengthened by appropriately acknowledging what is already known. While authors’ interest in trust research may be driven by the desire to make sense of novel phenomena (such as the sharing economy, artificial intelligence, VR, autonomous vehicles, algorithmic leadership/management), it is pivotal for researchers to avoid presenting “old wines in new bottles”. Not sufficiently connecting to previous research makes it more difficult to derive a compelling research contribution, thus, we encourage researchers to meaningfully connect to existing work.

Another challenge authors face is to streamline and develop a compelling narrative addressing trust/distrust research, rather than “getting lost” by focusing on constructs that are only loosely related to trust research. For example, authors may extensively discuss topics such as blockchain technology and complexity and claim that their research addresses trust and distrust, without working out the explicit connections and relationships to trust research. It is pivotal to be crystal clear about the unit of analysis, and to not conflate trust and distrust constructs with non-trust related constructs. To this end, we

encourage researchers to zoom into trust and distrust constructs and work out how a paper extends or refines previous research. Doing so will allow them to carve out a compelling contribution.

We look for ever more exciting papers for next year’s conference.

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