

THE ROLE OF INSTITUTIONAL BASED TRUST IN THE WEB MEDIATED INFORMATION ENVIRONMENT (W-MIE):

User Perceptions on Design Requirements

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Abstract. The question on how to impose the sense of “legitimacy” in designing information artifact which can be rationalized and control as part of the interface design strategy and future IS construction for sensitive settings becomes our primary aim of this research. Drawing the attention to the web based information for Islamic content sharing sites, the paper present and discussed empirical results that explicate the role of institution which encapsulate within the notion of “institutional symbolisms” representation. Finally, some implications will conclude this paper.

1. Introduction

Trust entails in many forms of exchange where risk, uncertainty or interdependence exists in such environment, starting from the theoretical introduction of trust in an interpersonal form by Aristotle (Kennedy, 1991) to the 20th century of commercial custom and practice within the B2C (Business to Consumer) and B2B (Business to Business) commerce, see figure 1. However with the increasing number of websites that offers services, advices and information to consumers within sensitive fields such as religion, health, political, legal, financial, career and relationship are some of the evidence where consumers are extending their web usage to present and acquire knowledge that affect their personal lives as well as establishing personal and organizational connections. Hence, we coined the term *W-MIE* to collectively refer to the activities involved in acquiring, seeking and disseminating information within the information exchange mode (E.N.M. Ibrahim et. al.,

2007). As interaction becomes more impersonal, anonymous and automated it bring forward issues concerning the original and the copy, fraudulent behavior, forgery and deception, given the new conditions of knowledge transactions and exchanges: increasing asymmetrical distribution of information and assessment capabilities and more opportunity for forgery identity (Furray, 2004). Thus, deliberate users trusting decision to use their own knowledge to evaluate the information in its own terms.

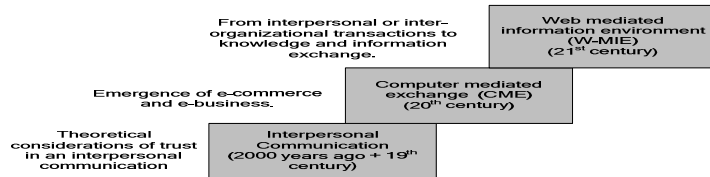


Figure 1: Evolution of research on trust issues.

While many criteria are applicable for evaluating informational websites through the quality indicators (Alexander and Tate, 1999) and credibility perceptions (Fogg and Tseng, 1999) however the works are being criticized because the operationalization of trust was not understandable (Krauter-Grabner and Kaluscha, 2003). This gives way to our initial assumption on how to design technology artifact in this case the information that is perceived trustworthy, which can be understood, rationalized and control as part of the overall interface design strategy. We believe the solutions would be to understand the trust operationalisation by taking the assumption of human forces, focusing on those parts of the system directly experienced and understand by the ordinary people. What we really need is an integrated knowledge and understanding of two critical values – *institutional and cultural* so that designers could make the alignment between formal and informal signs of trust between transacting parties in order to find common heuristics and framework in which the information domain reside. Hence, our key challenge of describing trust operationalization within sensitive information context lies in the understanding of what ‘*social legitimacy*’ means to safeguard trustworthy interaction between the user and the information presented; and how designers could impose the legitimacy through the institutional lens. Of our interests, we established a conceptual framework of institutional symbolisms and its underlying four dimensions (*content credibility, emotional assurance, trusted third party and brand/reputation*) via explication of institutional theory and symbolic interaction as reported earlier in (E.N.M. Ibrahim et. al, 2007). It looked at the aspect of the ‘soft’ trust dimensions underpinning institutional structure that takes into account on emotional and cognitive models for the assessment of trust semiosis as a key step in the design and evaluation of tangible and intangible

trust. The approach is based on the understanding of social norms and individual affordances. This makes it easier for human to reason about trust online through the institutional 'signaling' standpoint rather the knowledge or understanding of effective IT mechanisms for self protection on the Internet. In this paper we present the results generated from the card sorting study and in depth interview on the pragmatic and semantic aspects of institutional symbolism properties from the user's perception. In this case, the operationalization of institutional trust takes place within web based information for Islamic content sharing sites environment. Our reasons are twofold: first, it introduces a critical process of meaning making and trust constructions on the level of users, a particular set of communicators having its own unique identities, language systems of non verbal communication, cultural material, history and social structure. We believe this is an audience whose requirements online offerings attempt but fail to address. Second, the context is relevant to HCI in the sense that it provides understanding by capturing non functional user requirements, especially where these non-functional requirements are culturally or otherwise imbued makes a significant difference to user centric design.

2 Theoretical Framework

2.1 INSTITUTIONAL BASED TRUST

In general, institutional structure is seen as a domesticating system within a cultural container governing the specific procedures and operations to ensure the stability of an environment or situation by imposing norms risk censure, punishment and/or marginalization imposed and uphold by the social actors. It provides the infrastructure for both the skills and the tools available to help users deal with the issues of trust in the offline environment for example trust placed on legal systems in which individual interact in their everyday's life. In the IS literature, the notion of institution is encapsulate within institutional based trust (McKnight et. al., 1998), system trust (Chopra and Wallace, 2002) and reputed credibility (Fogg et. al., 1999). Current conceptualization of institutional trust is seen as a backdrop that envelopes and safeguards interaction based on the perception that effective IT enabled mechanisms are in place varying in its problems and dimensions (Pavlou and Gefen, 2004). However, institutional theory fills a gap by arguing that much of the environment consists of social and cultural forces rather than the production of resources and task-related information. It considers the processes by which structures, including schemas, rules, norms and routines become established as authoritative guidelines for social behavior and to provide environment

stability. Hence, we contend that trust in W-MIE is not simply oriented to interpersonal and inter-firm research context, also not a question of developing more sophisticated technologies, rather it is characterized by the elaboration of rules and requirements to which information designers must conform in order to receive 'legitimacy' or support in managing information on the web. Hence one of the methods to transmit these institution elements is through the 'symbolic interaction' where rules, laws, values and expectations yield the process and structure of a system and the internalization of the artifact used within the system (Scott, 2004).

2. 2 SYMBOLIC INTERACTION

Based on Bandura's (1986) social cognitive theory, individuals are imbued with capabilities to 'symbolize' which allow them to extract meaning from their environment, construct guides for action, solve problems cognitively, support thoughtful courses of action, gain new knowledge by reflective thought, and communicate with others. Symbolizing also enable people to store the information required to guide future behaviors that one can anticipate the consequences of an action without actually engaging in it. While, symbolic interaction examines the creation of meaning; semiotics takes that examination to the level of science that relates to the 'fundamentals of information' (Stamper, 1995). Semiotics maintains that the construction of meanings depends in part, on the context of the sign in relation to the interpreter and the culture in which both are situated. Semiotic does not recognize that any particular sign is truly 'universal', rather it depends on the context: both local and global. This implies that information is mediated by signs and their meanings would vary in different culture which stands to somebody for something; in some community or social context (Stamper, 1995). This allow signs to be treated as governing its own principles, the context it emit and receive and the determinant of their content where applicable.

2.3 INSTITUTIONAL SYMBOLISMS

In order to account for the semiosis process of trust in information the notion of institution is encapsulate within a system of representation and symbols defined as *institutional symbolisms*. Institutional symbolisms is a visible, physical manifestation of the institutional characteristics, behaviour and values represented by *trust marks*; signs that depict and present connoted message of some 'assurance' which signified under these four dimensions and its underlying properties, see Table 1. This assurance implies the sense of '*legitimacy*' that safeguards the overall impersonal structures and situations on the web in which the information domain reside. It implies that the symbols carry its own disposition and meaning; the trust warranting

properties manifested via textually or graphically presented on the website. In this sense, institutional symbolisms are seen as a form of social trust where trust is initiated through its social mechanism that imposed or restricting behavior and values through the means of symbolic representation.

TABLE 1: The Framework of Institutional Symbolisms Trust Inducing Features (E.N.M., Ibrahim et. al., 2007).

Dimensions	Values	Measurements
Trust marks that reflect third party assurance or seals of approval.	A belief that it will perform a particular action, to monitor or to control that certain acts and behavior is warranted.	Trust marks that symbolized: 1. Protecting privacy 2. Providing security 3. Demonstrating consumer satisfaction 4. Providing reliability 5. Providing assurance or guarantee.
Trust marks that reflect credibility of the web content	A belief that it has the ability and competency to carry out the obligations.	Trust marks that symbolized: 1. Competence (knowledge, expertise and skill). 2. Reliability (accuracy, currency, coverage and believability). 3. Predictability (stability of information).
Trust marks that evoke emotional assurance or security.	A belief that it will provide a sense of comfort that is reflective, thoughtful and careful.	Trust marks that symbolized: 1. Benevolence (goodwill and objectivity) 2. Honesty (validity and, openness). 3. Integrity (fiduciary obligations).
Trust marks that reflect trustworthy expectations derived from the message.	A belief that it signifies positive or prominent identities and values.	Trust marks that symbolized: 1. Reputation - Offline reputation 2. Brand - Brand Image - Brand Personality

3. Methodology

The focus of this study is to uncover how trustworthy information is perceived and signaled via institutional properties within Islamic context. In this research, we refer the Islamic content sharing sites as websites that highlight information, knowledge and services, be it commercial or entertainment in nature that reflect Islamic ideologies, content, norms or values. A card sorting technique is used to probe into the mental models of users in order to achieve a stable picture of user's preferred structure on the non functional quality aspects of websites followed by an in depth interview. The interviews were transcribed and subject to content analysis. The results will allow us either to add new content or eliminating existing content to an existing framework. A focus group of 15 users consists of 10 females and 5 males, having at least a bachelor degree qualification and 2 years experience on online transaction activities participated in this study. The subjects were presented with two *e-halal* official websites from Malaysia (www.halaljakim.gov.my) and Singapore (www.muis.gov.sg) and used them

to search for halal information either on products, services, advices or articles.

4. Results– An Overview

TABLE 2: Institutional Symbolism Dimensions and its Properties from the User’s Perceptions

Institutional Dimensions	Generated Categories	Institutional Elements
Content Credibility	Content Trustworthy (truth, validity)	Authority/ Authorships
		Past experience/ Previous encounter with the site
		Attributions
		Content Reliability
		Content Believability (links, accuracy, currency)
	Language	
	Content Legitimacy (lawful, evidential)	Information Legitimacy
		Information Protection/ Disclosure
Content Presentation (appearance, functionality)	Navigation of Content	
	Design and Layout	
Emotional Assurance	Site Benevolence (identification)	Organization/ Institution ‘s Values
		Perceived Organization/ Institution’s Positive Intentions
	Site Integrity security application and enforcement)	Security and authenticity
Trusted Third Party/ Seals of Approval	Demonstrating User’s Satisfaction	Demonstrating User’s Satisfaction
	Guarantees and safety nets	Providing Third Party on Site Security
		Providing Third Party on Information Privacy
	Information practices	Site policies and practices validation
Content Credibility validation		
Brand/ Reputation	Ethics (obligations)	Purpose
		Perceived Institution/ Organization’s Ability
		Social Roles or Functions
	Expertness (authority, knowledge)	Sources
		Offline Reputation

5. Discussions and Conclusion

Classic or traditional information quality and credibility attributes are unrepresentative of coherent system of rules to support social and technological aspects that is contextually and culturally bound. Institutionalization provide new lens for understanding the mechanisms supporting and restricting social behavior through social and cultural forces in order to achieve harmony although this may lead to minimal or constraint choices of actions and behaviors within a particular context and culture. Since institutions do not exist (empirically), we have to look for instances where they materialize in order to give illustrative examples of what they are. From table 2, it can be seen that there is great variability in the user's mental model and in the assumptions they used to describe the same concepts in which the generated categories and its elements are differ from the initial framework (table 1). The results yield empirical evidence of the institutional phenomena from the Muslim perspective on how they perceived "legitimacy" of Islamic information online. It is shown that element of *truth, lawful, identification, ethics, expertise* and *validity* are the determinants of legitimate information. Hence, our framework has explicitly accounted for the social and cultural values and the contribution allows researchers to take up an empirical study that test the construct. However, due to the huge population of the Muslims with different ethnic groups, the research is unable to capture the perceptions of trust of the general order. What we present here are the 'possible dimensions' of institutional based trust that exist amongst Islamic communities and not as something definitive. Nevertheless, we contend that designing information artifact should consider cultural and social aspect in which the information domain resides because essentially different culture within which a person operates would have shaped his or her perception of trust and call for differences in management and communication practices. Hence, creating the right appearances on the web by imposing social legitimacy, appropriate communication styles and languages are some of the integral issues for the designers to consider in developing information systems for sensitive setting.

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