Representations of the concept of trust in the literature of Library and Information Studies

Dean Leith

University of Technology, Sydney

Abstract

Governments and organizations around the world are increasingly turning to knowledge and information sharing as a lead strategy for developing response capacity to address issues in a wide range of programs and policy areas. The sharing of information and knowledge within organizations may be influenced by a range of factors, one being trust. This paper seeks, firstly, to identify and explore some key theoretical approaches to trust applied in the broader social sciences literature, including trust as a 'leap of faith' or willingness to vulnerability; trust as a key component of social capital; and trust as a component of the concept of power-knowledge and truth-telling as found in the work of Michel Foucault. Second, the paper presents the findings of a meta-analysis conducted of recent library and information science (LIS) literature in order to analyze how these three theoretical approaches are represented. Findings of the meta-analysis indicate that the trust definitions offered by two of the three theoretical perspectives investigated are well represented in recent LIS research; that other simpler definitions of trust are also represented; and that over one quarter of the sample were found to offer no explicit definition of trust. Analysis of these latter studies suggest that trust is represented by the implicit views and assumptions of researchers and the focus is more on the embedded authority of the information or abstract system rather than on the trustor as an essential component of the trust dynamic.

Introduction

At the heart of the researcher's broader project are key questions about knowledge and information flows and the potential to increase our understanding of why, how and where knowledge sharing takes place in the workplace and, more broadly, between organizations, communities and national boundaries. This paper forms one of several components of this larger project to explore how trust may impact on organizational knowledge sharing. The researcher's interest in this area arises from over two decades of professional practice attempting to facilitate information and knowledge sharing within and between organizations. This professional experience has led to the proposition that trust may play a key role in information and knowledge sharing. More broadly, in the context of the wider research project, it is suggested that understanding the dynamics of organizational knowledge sharing, and the role of trust in this sharing dynamic, is central to developing an understanding of the factors that may impede knowledge flows in the broader social context of cosmopolitan civil societies.

This paper will begin by analyzing trust as it is conceptualized in three theoretical perspectives drawn from the wider social sciences literature which the author has selected based in an interest in a social constructivist perspective. These include that of trust as a 'leap of faith which brackets ignorance or lack of information' as found in the work of British sociologist, Anthony Giddens, and later researchers who emphasize a willingness for vulnerability and risk involved in the act of trusting; the approach to trust found in the broad range of research into social capital as exemplified in the research of Fukuyama (1995a), Putnam (2000) and Halpern (2005); and thirdly, trust as a potential component of the exercise of power-knowledge or truth-telling practices as found in the work of the late Michel Foucault. In the second part of the paper, the results of a meta-analysis of recent Library and Information Science (LIS) literature is presented and discussed in terms of how trust is represented by the use of explicit definitions of the concept. In instances of research studies where the concept of trust is not explicitly defined, an analysis shows how the LIS authors may be implicitly defining trust. Based on the results of the meta-analysis, implications of the findings are discussed and suggestions for future research offered.

Part 1: Theoretical approaches to trust from the social sciences literature

Trust as a 'leap of faith' or willingness to be vulnerable

British sociologist, Anthony Giddens (1991, p. 244) defines trust as, 'the vesting of confidence in persons or abstract systems, made on the basis of a 'leap of faith' which brackets ignorance or lack of information'. For Giddens, trust is learned in infancy and enables the individual to deal with the unknowable in the social context. Central to this view of trust is the concept of expertise whereby modernity has dis-embedded individuals from previous social institutions to such an extent that they must now negotiate a myriad of expert systems in order to deal with daily life. Such expert systems employ modes of technical knowledge and penetrate all areas of our social life, however they are not confined to areas of technological expertise. Such systems impact on a range of social relations such as in the seeking of medical, financial or other forms of advice. Giddens distinguishes between an individual's trust in embodied expertise, such as that held by other people, and their trust in these abstract systems. While he sees such systems as depending on trust, he sees them as providing none of the moral rewards of personalized trust and, indeed, as increasing the vulnerability, the essence of trust, of the individual. An example of such vulnerability may be that of an individual investor to the fluctuations of the global economy or, in the context of

information seeking, the vulnerability of the information seeker to the technical vagaries of an automated network holding key information required for their research.

Thus, for Giddens, the 'leap of faith' at the center of trust involves the trustor experiencing a lack of expertise in a particular area of their life and acknowledging that the expertise they require to address this lack is held by another individual or system. They either consciously or subconsciously make a 'leap of faith' to trust in that individual or system in order to address the lack of information or accept the authority of the 'expert' until they have evidence to the contrary. Giddens sees this 'leap' as underlying a multitude of day-to-day decisions, but, as he states,

> '…trusting is not by any means always the result of consciously taken decisions;
> more often it is a generalized attitude of mind that underlies those decisions,
> something which has its roots in the connection between trust and personal
> development' (Giddens, 1991, p. 19).

In the context of the LIS literature, Jansson (2012) borrows Giddens's definition and develops the concept of 'sectors of reflexivity and trust' based on his concept of the 'lifestyle sector' defined as, '…a time-space slice of an individual's overall activities, within which a reasonably consistent and ordered set of practices is adopted and enacted' (Giddens, 1991, p. 83). In this context, reflexivity may be defined as regarding oneself and one's surroundings from a distance, that is, to be conscious, but not necessarily reflective, in terms of one's actions (Rasmussen & Jochumsen, 2007). Jansson distinguishes between *social* and *systemic* reflexivity and trust in which the former refers to trust in social rules and conventions and a willingness to act in accordance with those conventions. *Systemic* reflexivity and trust refers less to other people and more to 'abstract' systems through which social life is administered such as monetary, technological and other 'expert' systems. Jansson argues that all these systems depend on trust and we must count on the predictability and correctness of these systems to live in the modern world. He argues though that it is certainly possible for such systems to fail and we need to deal with such failures as well as adapt to new systems and reinventions of older systems and integrate them into our pre-established 'lifestyle sectors'. In the context of LIS, systemic reflexivity involves the client, or user, needing to count on the predictability and correctness of the information systems, to deal with instances of system failure, and to adapt to new systems as they develop, integrating them into their information practice. Information practice here, and throughout this paper, refers to the interdependent acts of information seeking, use and sharing directed by professional and social rules and

norms, and affected by an individual's stock of knowledge, which become meaningful through contributing to projects of various kinds, both generic and specific (Savolainen, 2008).

In line with Giddens's concept of trust as a 'leap of faith' is a commonly applied definition of trust proposed by Mayer et al (1995) in which trust is seen 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 important to the trustor, irrespective of the ability to monitor or control that other party' (Mayer et al, 1995, p. 712). This definition of trust is similar to Giddens's in that it emphasizes the vulnerability or risk involved in the act of trusting. It differs from Giddens's definition in that it focuses on the conscious willingness to trust as well as the context of the modern organization. Mayer also distinguishes trust from *cooperation*, where the latter does not necessarily imply risk; from *confidence* which, unlike risk, does not presume previous knowledge as trust does; and from *predictability* which differs from trust in that it is insufficient to increase the likelihood of risk-taking and indeed, if the prediction is of negative consequences, will reduce the willingness to be vulnerable or take a risk.

Mayer et al (1995) also identify characteristics of the trustee or trustworthiness, which include ability, benevolence and integrity and analyze the role of context in the study of trust such as the stakes involved, the balance of power, the perception of the level of risk and the trustor's available alternatives. Mayer's definition however is limited to one trustor's interaction with a particular trustee rather than trust in a wider social system and is thus only unidirectional in nature.

Trust as social capital
The concept of social capital originates from the founding fathers of the social sciences such as Adam Smith, de Tocqueville and Durkheim, who all emphasize the key role that community plays in individual prosperity. Bourdieu defines social capital as 'the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition' (1985, p. 248). This concept, made more visible and popular in American sociology by Coleman, may be defined by its function, namely as 'a variety of entities with two elements in common, where they all consist of some aspects of social structures, and they facilitate certain action of actors-whether personal or corporate actors-within the structure' (Coleman 1990, p. 301).

Portes (1998) sees this definition as rather vague and insists that any systematic treatment of social capital, must distinguish among a) the possessors of social capital (those making demands), b) the sources of social capital (those agreeing to these demands) and, c) the resources themselves. He concludes that there is a consensus in the literature that social capital stands for the ability of actors to secure benefits by virtue of membership of social networks and other social structures.

Fukuyama (1995b) sees social capital as closely tied to the concept of trust in that it is seen to arise from the prevalence of trust in a society, or certain parts of it. Putman (2000), too, identifies trust as a key driving force in the development and operation of social capital. Trust here is seen as arising within a community of regular, honest and cooperative behavior, based on commonly shared norms on the part of other members of that community (Fukuyama, 1995a, p.26).

Halpern (2005, p. 3) defines social capital as the 'web of social understandings of how to behave in society which forms a social fabric of connection and tacit cooperation' and identifies what he sees as functional sub-types of social capital. The most important of these are described by Putman (2000) and Gittell & Vidal (1998) as the bonding and bridging distinction. Bonding social capital tends to be inward looking and to reinforce trust and bonds with exclusive identities and homogeneous groups. Bridging social capital, on the other hand, is outward looking and encompasses people from across diverse social boundaries. Granovetter's (1973) concept of the 'strength of weak ties' focuses on bridging social capital in that it stresses the importance of more peripheral contacts and trust relationships as opposed to those in families or well defined close-knit groups. In a study of professional, technical and managerial job changes in Boston, he found that weak professional ties with colleagues are an important resource for facilitating job mobility opportunities and creating a 'sense of community' between otherwise disconnected networks.

Granovetter (1985) later found that the degree of embeddedness within concrete personal relationships and structures within economic networks is key in generating trust and discouraging malfeasance. While positive reputational information may encourage trust and co-operation between colleagues, direct personal experience is preferable because it is cheap; one trusts one's own information best; the expectation of future transactions is motivation to

be more trustworthy; and finally because, economic motives aside, continuing economic relationships become overlaid with social opportunities so expectation and experience of trust and honesty is increased.

Leonard and Onyx (2003) later challenged Grannovetter's findings concerning the 'strength of weak ties'. In a study of participants connected through dispersed urban and rural community organizations in New South Wales, they found that close multi-functional ties are preferred for both bonding (within group) and bridging (between group) connections. Further, they found that the only loose ties that are used for bridging are those with formal professional status. Such findings stress the central importance of trust both within and between communities in order to grow social capital.

Trust as a component of power-knowledge and truth-telling
Michel Foucault, sees knowledge as inextricably linked to power and, indeed, elaborates his theory of power-knowledge in a 1978 lecture presented at York University, Toronto, as follows,

> 'No power is exercised without the extraction, appropriation, distribution or retention of knowledge. At this level, we do not have knowledge on the one hand and society on the other, or science and state; we have the basic forms of power-knowledge' (Foucault, 1978, p.20).

Foucault also sees resistance as a necessary and constant companion to power in that, while power may be visible and dominant, resistance, being less visible and carried in oppositional discourses, will be both a support but also a constant limit to power.

While this view of the inevitability of the exercise of power-knowledge has been applied to LIS theory and research, the concept of trust has not generally been identified as a key component of Foucault's contribution. His later work on 'the care of the self' however, concerns a form of truth-telling which potentially has, as a central component, the concept of trust between the truth-teller and their listener. Indeed, Luxon (2004) argues that in Foucault's later lectures at the College de France, delivered between 1982 and 1984, where he elaborates on the ancient ethical practices of *parrhesia*, or truth telling, there is scope for identifying the concept of trust as playing a key role in this work. In these lectures, Foucault describes parrhesia as 'telling all', but tied to the truth: telling the whole truth, hiding nothing of the truth, telling the truth without hiding it behind anything' (Foucault, 1984 [2008]).

While such truth-telling forms the basis of *parrhesia*, Foucault also imposes other conditions on the practice, or on the *truth-teller*, namely that there must be a fundamental bond between the truth-teller and the person to whom the truth is addressed; that they provide their opinion unreservedly and are bound to that truth; and, also, that they run some degree of risk through telling this truth.

Luxon contends that, in presenting the practice of truth-telling in this way, Foucault develops a powerful contemporary model. More importantly, for the purpose of this paper, the potential ethical contribution of the concept of *parrhesia* is that it is a process of the development of the subject governed by relations of trust, ultimately enabling the education and *development* of individuals rather than mere *production* of subjects. Indeed, *parrhesia* may be seen as a means of reversing the effects of the coercive practices explored in Foucault's earlier work and presenting the possibility of learning how to be active in creating and testing authority figures and making them productive through trust relationships. Trust then, in the context of Foucault's later work, may sit at the heart of what is termed the *parrhesiastic* game or as a central component of the process of truth-telling.

Applications of Foucault's theoretical perspective to LIS research include a range of studies undertaken in a variety of contexts, though not specifically with respect to trust. Such applications include the analysis of business information (Gordon & Grant, 2005), the nursing profession (Johannisson & Sundin, 2007) and in university researchers 'truth statements' and discursive practices (Olsson, 2007). Frohman argued as early as 1992 that LIS theory is so extraordinarily unreflective about its institutional underpinnings to warrant the hypothesis that power's invisibility is the consequence of a deliberate discursive strategy and concludes that any analysis between knowledge and power in the discipline, as found in the work of Foucault, was long overdue (Frohman, 1992, p. 368). Savolainen (2007, p.109) in a systematic analysis of LIS literature, identifies concepts such as information practice as an 'umbrella concept' in LIS literature and warns that, unless such discourses are investigated and challenged, researchers are in danger of 'becoming trapped in their own discursive formations' as Foucault (1972) had earlier warned.

Olsson (1998, 1999) presents a comprehensive theoretical framework for examining information behavior of groups based on the concept of discourse and draws on Foucault's theoretical perspective in a variety of settings including that of academic information

behavior researchers and their social construction of an 'author' (Olsson, 2005a, 2005b) and amongst theatre professionals (Olsson, 2010a & 2010b). Olsson also calls for a re-thinking of the concept of information users in LIS research and a greater focus on 'context, on long-term relationships, and the complex role of emotion and embodiment in people's sense-making' (Olsson, 2009, p. 22). McNabb (1999) too, adopts Foucault's view that every society/institution imposes strong constraints on the production of discourse through a process that is at once controlled, selected, organized and redistributed according to a range of procedures (Foucault, 1972, p. 216). These constraints, McNabb (1999) contends, restrict what modern institutions can classify as knowledge; the rules and procedures that determine what statements can be made about knowledge and, further, who has the authorizing power to speak about knowledge.

Although providing apparently diverse conceptualizations of trust, the three approaches outlined above have some areas of commonality. Both Giddens' and Foucault's work may be seen as representing a social constructivist approach in that they are both engaged in considering how social phenomena or objects of consciousness develop in social contexts. Both also share an interest in the dynamics of power and power relations and both see power as a generative force in modern society and as being neither inherently positive nor negative. They differ, however, in their view of structure and agency in that Giddens is mainly concerned with agency as the primary object of study within a social context, whereas Foucault foregrounds the importance of discourse in the exercise of power over subjects. For Foucault, individuals do have an active role in producing themselves as subjects through which discourse may act (Kendall, 1999), however, his focus, at least in most of his work, is on the way power produces knowledge, discourse and subjects.

Other parallels include that between Mayer et al and some strands of social capital theory in that they both arise out of economics and organizational theory. Both take a strongly empiricist perspective and are concerned with the operation of trust within organizations and how trust may be developed to achieve successful business practice. In contrast, other strands of social capital theory, such as that developed by Putnam (2000) and Coleman (1990), have more in common with Giddens stemming from the tradition of sociology.

Part 2: Meta-analysis of recent LIS trust literature

In the light of these three broader theoretical approaches to trust, this study sought to investigate how these perspectives are represented in recent LIS literature both in terms of the explicit trust definitions used by researchers and, in studies where explicit definitions of trust are not provided, the implicit representations and assumptions offered by researchers and/or practitioners.

The research article sample was identified by conducting an advanced title search for the term 'trust' for the period 2007-2013 in the LISA: Library and Information Science Abstracts (ProQuest) database as provided via the University of Technology, Sydney library website. In addition to the term 'trust' in the title, other search elements included peer review, English language, conference papers/proceedings or scholarly journals and the document type included conference reports, journal articles or literature review.

A total of 137 articles were analyzed by a comprehensive search for references to any formal definitions of trust. The primary focus of the analysis was literature review sections with corresponding checks in bibliographies for authors cited, however all sections were scanned for such definitions. The aim was to identify if the author offered an explicit definition of the term trust in the article. If no definition was offered, the article was analyzed according to the characteristics identified in the literature review for each of the three concepts.

Table 1 shows the definitions that were used to analyze the articles. Table 2 shows the results of this first level of analysis. Subsequently, those 37 articles which offered no explicit definition of trust, (ie. those in category 5), were analyzed in their entirety to identify the main subject or content area of the research. The findings from this level of analysis are presented in Table 3. Four of these articles have been identified for further discussion below. These have been identified as Articles A, B, C and D, rather than by the name of their author. This is to indicate that they have been chosen as representative of the group of 37 articles offering implicit definitions of trust.

Table 1: Criteria for classification of trust - definition provided by article authors

Theoretical approach – trust definition category:	Operational definition of trust	And/or reference to researchers such as:
1. Trust as a 'leap of faith' or willingness to be vulnerable	Article refers to a definition of trust which identifies a risk or vulnerability addressed by a willingness to make a 'leap of faith' toward another person or entity in order to seek a, usually positive, outcome.	Eg. Giddens, Mayer et al
2. Trust as a component of social capital	Article refers to a definition of trust which explicitly identifies trust as the essential element or 'glue' of a positive social relationship or explicit reference to trust as a component of 'social capital'.	Eg. Fukuyama, Putnam, Halpern
3. Trust as a component of power-knowledge or truth-telling	Article refers to a definition of trust which explicitly identifies trust as an essential element in the operation of power-knowledge or truth-telling.	Eg. Foucault
4. Trust as defined by another theoretical approach (not defined in 1-3 above)	Article provides a clear and explicit definition of trust which is not able to be categorized in 1-3 above.	Eg. Millar (2006) defines trust as 'belief in the responsibility of others'
5. No explicit definition of trust provided in the article	Article provides no explicit definition of trust and makes no reference to any theoretical or operational definition of trust.	

Findings

In terms of the explicit definitions of trust used by researchers, over 70% of the studies in the sample offered a clear definition of trust; conducted and provided a review of previous trust research; and opted for an explicit definition previously identified in the literature as shown in Table 2. The majority of these studies (50%) offered either Giddens's or Mayer's definition of trust, namely as a 'leap of faith' or a willingness to be vulnerable or to take risk. The vast majority of this category quoted Mayer's definition. The LIS literature contains numerous examples of the application of Mayer's definition of trust which arises out of research within an organizational and management context and, given much traditional LIS is also conducted in such a context, such as in libraries and their 'parent' organizations, this level of application is unsurprising. The strong presence of managerialism in the LIS context (McMenemy 2007) may also account for such a finding as it may be expected that researchers and practitioners would select a definition commonly used in this organizational context. Indeed, Mayer's definition had, in 2007, been cited over 1,100 times according to Google scholar (Schoorman et al, 2007, p. 344) and the popularity of this definition across a number of disciplines, including LIS, accounts for this strong representation in the period following his initial research and publication.

Table 2: Number and percentage of articles assigned to each of 5 trust categories.

Trust Category:	No of articles in category	% of total articles
1. Trust as a 'leap of faith'	68	49.63
2. Trust as a component of social capital	17	12.42
3. Trust as a component of power-knowledge or truth-telling	0	0
4. Trust as defined by another theoretical approach	15	10.95
5. No explicit definition of trust provided in the article	37	27.00
Total:	**137**	**100.00**
N/A – Either the article was unavailable in full-text or the term trust in the title refers to a trust entity, eg. 'Primary Care Trusts in North England'	*20*	

In the context of LIS research, these studies generally present the trustor, in many cases the 'user' or 'client', as lacking in expertise and therefore needing to make a 'leap of faith', or exhibit vulnerability, vis à vis another individual or system in order to address this lack. Several of the studies concerned trust in other people, but by far the majority concerned the trust in abstract or expert systems. This conceptualization of trust in the context of LIS research is reflective of what Dervin and Nilan (1986) identified as a significant move in information needs and uses research from a focus on systems and their embedded authority to a focus on library and information services users and their concerns. These studies acknowledge the trustor as an integral component of the trust dynamic or, as Dervin and Nilan propose, 'posits human beings as actively constructing, rather than passively processing, information' (Dervin & Nilan, 1986, p. 24).

A definition of trust as an integral component of the operation of social capital appeared in about 12% of the articles analyzed. The majority of these articles concern trust in social networking on the Internet, or trust in e-government, and it would be expected that researchers in these fields may tend to focus on trust as a component of social and community networking and related activities. It is interesting to note that the majority of these articles were also concerned with information sharing and information practice and focused on trust as an essential element in these activities. In contrast to the 'leap of faith' category, these articles primarily focused on trust between people or groups, albeit in some studies mediated through some form of technology. This reflects the conceptualization of trust as an integral

component of the development of social capital and the trust experienced by, say, the 'user' or 'client' for the librarian, knowledge manager or information specialist.

An example of the application of the social capital approach to trust in the LIS literature includes that taken by Tötterman and Widén-Wulff (2007) who identify three dimensions of social capital, namely the structural or network dimension; the relational or trust/identity dimension; and the content or communication dimension. The *structural* dimension constitutes the social network through which resources are exchanged and form the information and knowledge channels between participants. The *relational* dimension is the component in which trust resides and refers to communication and trust relationships developed in the community. Tötterman & Widén-Wulff (2007) see these trust relationships between community members as the very foundation of social capital and a key mechanism in generating more social capital via the development of a common knowledge base, especially in the organizational context. Here trust is the social 'glue' that binds community members and builds social capital both for the individual and the community. In a review of the literature on social capital, Bakker et al. (2006) identify two general approaches through which social capital is presented. The first considers social relations equating to social capital so that the more ties maintained, the greater social capital created. The second represented by Gabbay and Leenders (1999), argues that social ties only produce social capital if they are related to the social goals of the actor.

The LIS literature contains a wealth of studies describing how social capital impacts on a range of settings including online social ties on knowledge sharing (Su and Shin, 2010); virtual groups and computer mediated communication (Walther & Bunz, 2005); social capital and libraries (Goulding, 2004) and a range of others. Cox (1995) and Goulding (2004) stress the positive nature in which social capital is presented in that they emphasize that social capital, as opposed to human and physical capital, lead to community well-being, beneficial outcomes and desirable goals for the benefit of the community. These beneficial outcomes are said to be a consequence of the trust that individuals feel towards one another as a result of their engagement in social networks and this trust enhances the community's capacity to join together in collective action in order to resolve common problems or to ensure governments address such problems.

The finding that no articles in the sample defined trust with reference to Michel Foucault's description of the dynamics of either *power-knowledge or truth-telling* may be seen as somewhat surprising given the recent application of Foucault's theoretical approach to LIS research. Foucault's application to LIS research and literature is analyzed by Radford (1992, 1997, 2003), Anderson & Skouvig (2006), and Buschman (2007) and his relevance and importance to LIS practices and methodologies continue to be debated in the literature. Irrespective of the debate, Hannabuss (1996) contends,

> 'It is impossible fully to understand knowledge management in the modern age, and the infinite variety of information gathering behaviors observed in information work, without acknowledging the intellectual heritage of Foucault's work' (Hannabuss, 1996, p.98).

Such a result may reflect the perception that the primary concern within Foucault's oeuvre concerns the dynamics of power and power-knowledge and, until more recent analyses of his later work such that by Luxon (2004) have appeared, it has been perceived as having little application to research into the dynamics of trust. Indeed, many argue, like Nealon (2008), that, rather than Foucault's later focus on subjectivity representing a significant theoretical shift away from his archaeological and genealogical periods, he never abandoned his mid-career focus on power. That is, that the later apparent shift towards ethics and subjectivity, as suggested in the secondary literature, merely represents an intensification of earlier concerns.

Just over 10% of the articles analyzed explicitly used *alternative definitions* of trust to the three forming the focus of this study. The majority of these definitions were more simplified definitions of trust than found in 1 to 3 in Table 1 above, such as trust as a 'belief in another entity' (Mital et al., 2010), or trust as 'relying upon or placing confidence in someone or something…' (McDonald & Walters, 2010). These definitions define trust as a belief or a confidence in an outcome and, while presenting a more simplified view of trust than Giddens, Mayer or social capital theorists, they still acknowledge the role of the trustor and their relationship to the trustee. The studies in this category are generally concerned with predicting behavior of the individual while interacting with data and systems, rather than people, though some analyze interactions with people via online systems.

Over 25% of the articles in the sample provided *no explicit definition* of trust and this finding is worthy of more detailed analysis. An analysis of the subject matter of these 37 articles was

undertaken by analyzing the articles in their entirety to determine the focus of the content or subject area. Results are provided in Table 3. While many of these studies provided literature reviews, and, in some cases, these were quite comprehensive, the researchers did not provide an explicit definition of trust, despite using trust as a term in the title of their article; including trust as a variable in their research; and referring to trust throughout their research reports. The majority of these articles concerned technology and automated systems and the focus of the research appears to be the technology under investigation rather than the 'user' or 'client'. In the absence of an explicit definition of trust it appears that the author's assumptions about the meaning of trust are offered instead. As noted, trust was seen to be concerned with the authority or expertise of the information system. The point of view of the trustor, or service or system client, is secondary or absent.

Table 3: Category of subject research area for 37 articles providing implicit definition of trust

Subject area/content description category	Number of articles
a) Trust in computer systems, technical research and implementation	12
b) Trust in library or archives services and practice	9
c)Trust through website user interface design and development	8
d) Trust in e-government	4
e) Other- Eg. Trust in using the internet for research sampling	4

Particularly clear examples of this are found in Article A, which reported outstanding success in the implementation of a secure digital repository and concluded that 'security is a combination of responsibility, trust and goodness'. Here, there appear to be assumptions being made on the part of the researcher or practitioner that trust is achieved by the provision of a secure, authoritative and well-functioning information system, without reference to, or acknowledgement of, their users' opinions. Another example is Article B which, despite reporting on consumer's trust in web-based information, offers an evaluation with no reference to users of the websites. If trust is indeed a variable identified in this study, it seems to be an implied trust in what Giddens may define as the abstract system, however no explicit definition is provided so it remains unclear. In other examples, even where 'system users' are components of the research, in the absence of an explicit definition of trust in the research report, it is difficult to establish that trust, as originating from a trustor or client is indeed being measured at all. In these studies, trust appears to be used as a surrogate term for

'authority' or, as Wilson (1991) investigated, 'cognitive authority'. Such authority concerns 'claims to special knowledge' which characteristically require social recognition, may be of wide or narrow scope, and are based on reputation and/or performance. Chatman extended Wilson's work with respect to authority and information behavior in a range of 'small world' settings including amongst janitors (Chatman, 1991), elderly women in a retirement complex (Chatman, 1992), and female prisoners (1999). 'Small world' here refers to those settings found in everyday life in which people have little contact with people outside their immediate social milieu. Huotari and Chatman (2001) investigate authority, trust and information sharing in other settings such as higher education and concluded that authority and trust is strong in 'small worlds' but information is not shared with outsiders when they are not trusted.

While focusing more on trust in librarians, the library reference service or information literacy services rather than technology or automated systems, various other studies in this category make assumptions about trust without reference to the trustor. A particularly representative example is Article C which reported on research in which librarians cooperated with faculty staff to 'build trust', relieve student anxiety and increase literary skills, without explicitly defining what trust and its outcomes actually mean. Here, it may be that the ability to cooperate or collaborate is taken as an indicator of trust. However, as Meyer (1995) suggests, cooperation differs from trust in that it does not necessarily imply vulnerability or risk, thus, while the study may be measuring cooperation or even collaboration, without explicit definitions, it is difficult to determine if they are measuring trust as defined by any of the three perspectives.

Similarly, Article D makes the claim that 'public libraries have always been valued and trusted institutions in society' and that 'libraries have come to earn the trust of their communities', without explanation of what trust is or how this has been achieved. Here, trust is presented as a moral value, with institutions being, to some extent, given human characteristics of trustworthiness, authority and expertise. This example is interesting in that it does recognize the contribution of people to the creation of intellectually-based information systems which take their place in a shared community environment.

The studies in this category appear to represent trust through the lens of the researcher's implicit assumptions that are presumably based on their research experience or professional

practice, rather than with direct reference to the user or trustor in the context of a trust dynamic with a person or system. With respect to Dervin and Nilan's (1986) work, many of these studies focus more on the automated system and its perceived authority and operation, rather than the user of the library or system. The absence of an explicit definition of trust and explicit consideration of the trustor's role in these studies tends to place greater emphasis on the system and its role in the trust dynamic. Trust then becomes a universalized consequence of expertise and of authority, expected as part of a power-knowledge relationship by those who are vulnerable and lack information.

Conclusions, implications and further research

In summary then, this paper offers three contrasting theoretical approaches to trust which may usefully contribute to the researcher's future project of exploring the role of trust in organizational knowledge sharing. At the center of Giddens's view of trust is a commitment or expectation, through a suspension of doubt, that is learned in infancy and enables the individual to deal with the unknowable in the social context. At the heart of this expectation is the view of the individual as both an autonomous and active participant in the trust relationship. Mayer et al. take a similar view of trust and see the willingness to be vulnerable, or take a risk, as an essential element of their definition.

Social capital theorists, on the other hand, do not focus on a 'leap of faith' but see trust as an expectation of regular, honest and cooperative behavior and one that is deeply embedded in a social context. In essence, trust for them is the 'glue' at the center of a sense of community. They see trust as operating to seek benefits and advantages, enhance a community's capacity to bond, take collective action, or to resolve common social issues or problems. Further, the individual is seen as an active and autonomous social being participating in social practice which has both a structural and an agency component.

In contrast, Foucault's work is largely concerned with the ubiquitous nature of the exercise of power-knowledge and discursive practices, and how these dynamics impact on the subject in society. As suggested by Luxon (2004), trust exists in Foucault's later work as a central component of the act of truth-telling where participants in the ancient ethical practice of *parrhesia* build relationships through trust.

The results of the meta-analysis suggest that the trust definitions offered by two of the three theoretical perspectives investigated are well represented in recent LIS research. Foucault's theoretical perspective on the other hand, while applied to a range of other LIS research contexts, is not represented with respect to trust in the articles in this sample. This may be the result of the perception of Foucault's prominence in the areas of the analysis of power and power-knowledge rather than in the area of trust and/or the impact of the sample selection process.

In addition to these definitions, other simpler definitions of trust are also represented in the sample, however, over 25% of the sample were found to offer no explicit definition of trust. More detailed analysis of these studies suggest that trust may be represented by the implicit assumptions of the researchers' or practitioners' view of trust, that is, one that is focused more on technology and system rather than the trustor, or the system or service client.

The implications of the study's findings for LIS research and practice warrant further consideration. First, the findings have highlighted that, despite the article authors representing a mix of both academics and practitioners, over one quarter of the sample did not recognize a need to offer an explicit definition of a central concept in the title of their research report. While, for some observers, this may not be surprising, it does appear to assume the reader will share a similar understanding of the term trust or, as Foucault's work would suggest, the sharing of a common discourse between author and reader. While this may well be the case in some circumstances, it is generally considered common practice in research to offer definitions of central terms and, in turn, to acknowledge the source of such definitions. The findings suggest that attention still needs to be directed to meeting such expectations.

Second, given that the explicit definitions of trust identified in the literature all assume, and indeed focus on, the presence or 'point of view' of an agent, trustor, or, in the case of LIS practice, a 'client', the results suggest a lack of acknowledgment of this role or even the presence of this 'client' in the information practice described in the research. This suggests that the emergence of a greater client-focus and less of a systems orientation within LIS practice, as described by Dervin and Nilan (1986), may still have a way to go. This meta-analysis suggests a strong need for LIS researchers and practitioners to continually re-focus their attention on to their clients and their client's point of view, rather than make implicit

assumptions about services and systems based on their own personal or organizational perspectives.

What appears to be occurring in these studies is an unspoken set of professional beliefs, values and practices that, on the one hand, assume client trust is present but, on the other, removes the client from the research process by both failing to define trust, and thus the trustor's role. LIS researchers in this category may need to make stronger attempts to link their technical and systems research to the viewpoints and perspectives of end users or 'clients' of those systems. Placing the 'client', or trustor, at the center of the research by acknowledging their role in an explicit definition of trust assists in placing them at the center of the research. That is, the 'client' or trustor needs to be placed in the context of a relationship with the trusted person, professional, service or system as an essential component of the information practice being studied.

This research forms one component of a wider investigation into the role of trust in organizational knowledge sharing. It follows that the findings suggest a number of avenues for further investigation for the wider project. In the context of knowledge sharing, it would be instructive to undertake further research into the concept of expertise as a component of the dynamic of trust. If, as Giddens suggests, trust results from ignorance or a lack of information, it would assist to gain more of an understanding of how expertise is conceptualized both as being embodied in another person and/or by an abstract or expert system. Similarly, it would be instructive to expand the investigation of conceptions of ignorance and how individual trustors recognize their vulnerability or take risks, in order to, either consciously or unconsciously, address this ignorance through the act of trusting.

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