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What is Trust?

A Conceptual Analysis and An Interdisciplinary Model

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Abstract

Trust is a vital relationship concept that needs further conceptual analysis, not just empirical testing. Trust has been defined in so many ways by so many different researchers across disciplines that a typology of the various types of trust is sorely needed. This paper justifies and develops such an interdisciplinary typology and defines the constructs within the typology. These constructs, though defined at the personal level, are scalable to various levels of analysis and may be used in various trust situations, including IS/customer relations.

Trust is central to interpersonal (Golembiewski & McConkie, 1975) and commercial (Morgan & Hunt, 1994) relationships. Trust is crucial wherever risk, uncertainty, or interdependence exist (Mayer, Davis & Schoorman, 1995; Mishra, 1996). These conditions flourish in many settings, and certainly exist in the relationship between Information Systems (IS) people and their customers. Trust has been found to be important to IS/customer performance (Nelson & Coopridge, 1996), and is also key in virtual teams (Jarvenpaa & Leidner, 1998) and e-commerce (Ba, Whinston & Zhang, 1999; Hoffman, et al., 1999; Jarvenpaa, Tractinsky & Vitale, 1998; Noteberg, Christaense & Wallage, 1999; Stewart, 1999). As conditions become more uncertain because of downsizing, mergers, and more complex business dealings, the need for trust grows (Mishra, 1996).

The State of Trust Definitions

A good deal of trust research has recently been initiated, with the potential to produce significant understanding of various IS phenomena. However, an understanding of what the term 'trust' means is needed in order to interpret and compare trust results. In this paper, we justify and specify a conceptual typology of trust constructs. Then we define the four resulting constructs and ten measurable subconstructs. Distrust constructs are not the same as trust constructs (Lewicki, et al., 1998), and lie outside our present scope.

Several researchers have reported that trust definitions are numerous and confusing (e.g., Lewis & Weigert, 1985a; Shapiro, 1987; Taylor, 1989). Some have said that trust is an elusive concept to define (Gambetta, 1988; Yamagishi &

Yamagishi, 1994). Others have chosen not to define trust (e.g., Granovetter, 1985; Ouchi, 1981). Why the confusion?

One reason is that each discipline views trust from its own unique perspective. Like the story of the six blind men and the elephant, a disciplinary lens causes psychologists to see trust as a personal trait, sociologists to see trust as a social structure, and economists to see trust as an economic choice mechanism (Lewicki & Bunker, 1995).

However, the other reason is that trust is itself a vague term. In ordinary English usage, trust has acquired a large number of meanings. That is, depending on the context, we may think of many different things when someone uses the word 'trust.' An analysis of the word trust in three unabridged dictionaries (Websters, Random House, and Oxford) showed that trust had far more definitions (9, 24, and 18, respectively) than did the terms cooperation (3, 2, 6), confidence (6, 8, 13), and predictable (1, 2, 1). Cooperation, confidence, and predictable are the terms which Mayer, et al. (1995) used to discriminate trust from similar concepts. On average, trust had 17.0 definitions, while the others had an average of 4.7. Hence, trust is naturally hard to narrow down to one specific definition.

Few have addressed this issue head-on by trying to reconcile the various types of trust into a sensible set of constructs (exceptions: Barber, 1983; Bromiley & Cummings, 1995; Dobing, 1993; Kee & Knox, 1970; Mayer, et al., 1995; Mishra, 1996). In part, this is because of disciplinary perspective. For example, sociologists Lewis & Weigert (1985b) argued that psychological views of trust are invalid because trust cannot be reduced to a personal characteristic. Thus, social structural definitions (e.g., Shapiro, 1987) are almost impossible to reconcile against personal expectancy definitions (e.g., Rotter, 1971).

The other problem has been that empirical research has driven most definitions of trust, and one need only define one type of trust to do empirical research. Therefore, each researcher has developed a narrow conceptualization of trust that fits the type of research they do. They defend their narrow trust conceptualization by referring to the factor analysis. Van de Ven (1989: 487) warned that when theories on a topic widely diverge, the advocates "for each theory engage in activities to make their theory better by increasing

its internal consistency, often at the expense of limiting its scope...[S]uch impeccable micro logic is creating macro nonsense!" This seems to be happening in trust research. A more beneficial way would be to recognize the various types of trust that exist and to specify which type of trust is being addressed in the current work. In this paper, we will use the term "trust" to refer to the broad, generic trust concept.

The Need for Consistent Trust Definitions

Researchers should agree on what trust types exist for two reasons. First, common definitions would enable researchers to sort out findings across studies. Currently, this is very hard to do (Golembiewski & McConkie, 1975). Without agreed-upon definitions, effective meta-analyses would be difficult and ineffective. A search in ABI Inform yielded only two meta-analyses about trust, both published very recently. This meager result may be a symptom of the difficulty of comparing trust studies. What trust research needs is a set of rules to translate one result to another, as Rubin (1988) recommended for the love literature. Consensus knowledge about trust will progress at a more rapid rate when study results can be compared.

Second, consistent definitions provide a means for researchers to communicate clearly with practitioners and provide them better prescriptions. This dialogue would both enable trust research to be more valuable to practitioners and provide researchers the value of intuitive practitioner knowledge. Researchers like social psychologist Harold Kelley (1992) have commented that the interplay between common-sense psychology and scientific psychology is useful to both parties.

Also, it is troublesome that trust prescriptions to practitioners are typically couched in the same vague term ('trust') that has confused so many researchers. Vague prescriptions about generic trust are dangerous because they may not address the specific problem in a productive way. Worse, the researcher/consultant's narrow type of trust may be prescribed mistakenly to situations in which it is not appropriate. This is like giving a patient a pain medication for a heart problem because it worked for a headache. As an example in IS, what better leads to adoption of an information system, user trusting perceptions about the IS group or user disposition to trust? Both have been called trust, making it difficult to sort out what really leads to what.

One Suggestion: Create a Trust Typology

The key to defining trust lies only partially in empirical work or even in construct validation work. After all, it is the plethora of empirical trust studies that has brought trust research to its current state. Wrightsman (1991: 411), who studied trust empirically for years, said, "...the general concept of trust deserves much more theoretical analysis. Measurement has advanced more rapidly than conceptual clarification..." Several trust researchers agree (Kee & Knox, 1970; Lewicki & Bunker, 1995; Taylor, 1989). Other

scientists have argued that effective conceptualization is vital to progress in validating *any* construct (Kaplan, 1964; Schwab, 1980). Thus, building a good *theoretical, conceptual* view of trust is a key to moving trust research forward.

Because trust is so broad a concept, and because so many definitions have proliferated, a typology of trust constructs seems appropriate. A good typology of trust concepts would do two things (Tiryakian, 1968). First, it would create order out of chaos by distinguishing clearly among concepts that at first appear to be the same concept (trust). Second, it would permit one to postulate how the different types of trust relate to each other (Schwab, 1980), creating a model of trust types. "This is because a good typology is not a collection of undifferentiated entities but is composed of a cluster of traits which do in reality 'hang together.'" (Tiryakian, 1968: 178)

To produce an acceptable typology requires analysis of existing trust definitions. We compared various definitions, as in grounded theory (Glaser & Strauss, 1967), to find conceptual trends. Among about eighty articles and books on trust, we identified sixty-five that provided definitions of trust. These articles and books were from psychology/social psychology (23), sociology/economics/ political science (19), and management/communications (23). Each was either cited by others or had a unique trust definition.

By analyzing these definitions, we found two broad groupings of definitions. First, many definitions could be categorized into *different conceptual types*, such as attitudes, beliefs, behaviors, and dispositions. Second, many definitions could be categorized as reflecting *different referents*: trust in something, trust in someone, or trust in a specific characteristic of someone (e.g., one's honesty). In terms of specific characteristics, sixteen categories of trust-related characteristics were identified (Table 1).

As Table 1 shows, the sixteen categories may be distilled into five second order conceptual categories by comparing one type of characteristic with another. Most of these categorizations are intuitive; however, based on the literature, we decided to distinguish between Predictability and Integrity by defining the latter as value-laden and the former as value-less. Thus, the value-laden definitions of dependable and reliable we found in the literature would more closely fit in the Integrity category than in the Predictability category. Four second order categories (competence, benevolence, integrity, and predictability) cover 91.8% of the characteristic-based trust definitions found in the 65 sources.

The two types of groupings of trust definitions (construct type and referent) seemed relatively exclusive, in that the first refers to what type of construct trust is, while the second refers to the object of trust. Therefore, we used these two categories as an N X N table that enabled us to depict the types of trust definitions researchers have used. Table 2 shows the result of using these two groupings as table dimensions. We mapped each of the definitions in the sixty-five articles and books onto these dimensions. The result was

the expected finding--that trust definitions were almost (excuse the expression) all over the map.

Table 1 Trust Characteristic-based Definition Categories

Trust-related Characteristic	Second Order Conceptual Category	Count	% of Total
1. Competent		14	
2. Expert		3	
3. Dynamic		<u>3</u>	
	COMPETENCE	<u>20</u>	<u>20.4</u>
4. Predictable	PREDICTABILITY	<u>6</u>	<u>6.1</u>
5. Good, Moral		6	
6. Good will		10	
7. Benevolent, Caring		18	
8. Responsive		<u>4</u>	
	BENEVOLENCE	<u>38</u>	<u>38.8</u>
9. Honest		11	
10. Credible		1	
11. Reliable		8	
12. Dependable		<u>6</u>	
	INTEGRITY	<u>26</u>	<u>26.5</u>
13. Open		3	
14. Careful, Safe		3	
15. Shared Understanding		1	
16. Personally Attractive		<u>1</u>	
	OTHER	<u>8</u>	<u>8.2</u>
	Grand Total	<u>98</u>	<u>100.0</u>

A Typology of Related Trust Constructs

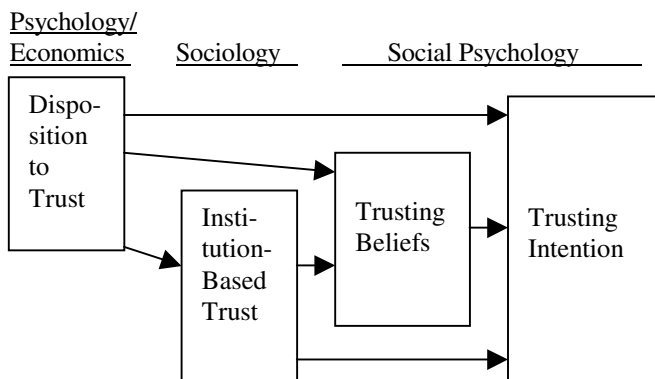
From this mapping, and from an analysis of how trust types were related to each other (McKnight, Cummings & Chervany, 1998), we saw the potential for an interdisciplinary model of trust types. The model (Figure 1) has constructs representing four of the columns in Table 2. The Attitude and Belief columns were combined into Trusting Beliefs, which are defined to have both affective and cognitive components (see Rempel, Holmes & Zanna, 1985). Trusting Behavior was dropped because the consequents of Trusting Intention already have other labels, (e.g., cooperation, information sharing, entering agreements with, risk taking, or involvement with). What these have in common is that, in each case, one *depends* on the other party.

Table 2 Mapping of Literature Trust Definitions

Type	Structural	Disposition	Attitude	Belief	Intention	Behavior
Competence			x	xxxxxxx xxxxxxx xxxxx		xxxx
Benevolence			xxxxx xxxxx x	xxxxxxx xxxxxxx xxxxxxx xxxx	xxx	xxxxx
Integrity			xxxxx xxxx	xxxxxxx xxxxxxx xxxx	x	xxxxx
Predictability			x	xxxxxxx xxxx		x
Other				xxxxxxx		x
Other Referent	xxxxxx	xxxxx	xxxxx xx	xxxxxxx xxxxxxx xxxxxxx	xxxxx	xxxxx xxxxx xx

Notes: 1. Each “x” represents one trust definition. 2. Attitude includes affect and confidence; Belief includes “expectancy”

Figure 1 An Interdisciplinary Model of Trust Constructs



The four constructs in Figure 1 may also be further subdivided into lower level constructs that are measurable via scales. Disposition to Trust includes the Faith in Humanity and Trusting Stance subconstructs. Institution-based Trust consists of Structural Assurance and Situational Normality. Trusting Beliefs include Competence, Benevolence, Integrity, and Predictability beliefs. These four types of Trusting Beliefs correspond to the first four rows of Table 2. Trusting Intention includes Willingness to Depend (Dobing, 1993) and Subjective Probability of Depending (Curall & Judge, 1995).

As the definitions below will show, these subdivisions of the four main constructs are proposed to be conceptually distinguishable from each other and from the construct itself. They are not simply two parts of a dual construct. Like the

subtypes of a data modeling supertype (Brown, 1993), each subconstruct partakes of the overall conceptual meaning of the supertype, but has certain attributes that distinguish it from the supertype and from other subtypes. Another example of this kind of typology is found in the categorization of the animal kingdom by biologists. A cow and an elephant are both mammals, for example, because they both give live birth, have hair, and nourish their babies through mammary glands (Webster's Ninth Collegiate Dictionary). What distinguishes the elephant from the cow are attributes like: huge size, big ears, a flexible, elongated snout, tusks, and a unique toe/foot arrangement. Similarly, each of the subconstructs of our four main constructs partakes of the nature of the construct but has parts that differentiate it from its parent construct and from other subconstructs of its parent.

We now define Figure 1's constructs and subconstructs.

Conceptual Definitions of Trust Constructs

Disposition to Trust. This construct means *the extent to which one displays a consistent tendency to be willing to depend on general others across a broad spectrum of situations and persons*. This construct hails primarily from dispositional psychology. Our definition does not literally refer to a person's trait. Rather, it means that one has a general propensity to be willing to depend on others. Disposition to trust does not necessarily imply that one believes others to be trustworthy. Whatever the reason, one tends to be willing to depend on others. People may grow up with Disposition to Trust (Erikson, 1968) or may develop it later in life. Either way, it is acted out as a generalized reaction to life's experiences with other people (Rotter, 1971). Because Disposition to Trust is a generalized tendency across situations and persons, it probably colors our interpretation of situations and actors in situations, but only has a major effect on one's trust-related behavior when novel situations arise, in which the person and situation are unfamiliar (Johnson-George & Swap, 1982).

Disposition to Trust has two subconstructs, Faith in Humanity and Trusting Stance. *Faith in Humanity* refers to underlying assumptions about people, while Trusting Stance is like a personal strategy. *Faith in Humanity means one assumes others are usually upright, well-meaning, and dependable* (e.g., Rosenberg, 1957; Wrightsman, 1991). Mayer et al. (1995) gave the example that if you were going to drown, could you trust nonspecific others to come to your aid? You would if, having high Faith in Humanity, you assumed others generally care enough to help.

Trusting Stance means that, regardless of what one assumes about other people generally, one assumes that one will achieve better outcomes by dealing with people as though they are well-meaning and reliable. Therefore, it is like a personal choice or strategy to trust others. Because it involves choice that is presumably based on subjective calculation of the odds of success in a venture, Trusting Stance derives from the calculative, economics-based trust

research stream (e.g., Riker, 1971). Here's an example. We once asked an IS employee if she trusted her newly hired manager, whom she had never met before. She said that she did trust her, because she always trusted new people until they gave her some reason not to trust them. Thus, she had a high level of Trusting Stance, which encouraged her to be willing to depend on her new boss.

Trusting Stance and Faith in Humanity are alike in that they each constitute a tendency or propensity (Mayer et al., 1995) to trust other people. They differ in terms of the assumptions on which they build. Because Faith in Humanity relates to assumptions about peoples' attributes, it is more likely to be an antecedent to Trusting Beliefs (in people) than is Trusting Stance. Trusting Stance may relate more to Trusting Intention, which, depending on the situation, is probably not based wholly on beliefs about the other person, (McKnight, et al., 1998).

Institution-based Trust means *one believes the needed conditions are in place to enable one to anticipate a successful outcome in an endeavor or aspect of one's life* (Luhmann, 1979; Lewis & Weigert, 1985a; Shapiro, 1987; Zucker, 1986). This construct comes from the sociology tradition that people can rely on others because of structures, situations, or roles (Baier, 1986) that provide assurances that things will go well. Zucker (1986) traces the history of regulations and institutions in America that enabled people to trust each other—not because they knew each other personally, but because licensing or auditing or laws or governmental enforcement bodies were in place to make sure the other person was either afraid to harm you or punished if they did harm you.

Institution-based Trust has two subconstructs, Structural Assurance and Situational Normality. *Structural Assurance means one believes that success is likely because guarantees, contracts, regulations, promises, legal recourse, processes, or procedures are in place that assure success* (Shapiro, 1987; Zucker, 1986). For example, one using the internet would have structural assurance to the extent to which one believed legal and technological safeguards (e.g., encryption) protect one from privacy loss or credit card fraud. With a high structural assurance level, one would be more likely to be willing to rely on specific internet vendors because of the secure feeling structural assurance engenders. In system development, Structural Assurance might refer to the processes and procedures that make things safe or fair in that specific organizational setting.

Situational Normality means one believes that success is likely because the situation is normal or favorable. Situational normality reflects Garfinkel's (1963) idea that trust is the perception that things in the situation are normal, proper, customary (Baier, 1986), fitting, or in proper order (Lewis & Weigert, 1985a). Garfinkel found in natural experiments that people don't trust others when things "go weird," that is, when they face inexplicable, abnormal

situations. For example, one subject told the experimenter he had a flat tire on the way to work. The experimenter responded, "What do you mean, you had a flat tire?" The subject replied, in a hostile way, "What do you mean? What do you mean? A flat tire is a flat tire. That is what I meant. Nothing special. What a crazy question!" (1963: 221) At this point, trust between them broke down because the illogical question produced an abnormal situation. Situational normality means that a properly ordered setting is likely to facilitate a successful venture. When one believes one's role and others' roles in the situation are appropriate and conducive to success, then one has a basis for trusting the people in the situation. Hence, situational normality is likely related to Trusting Beliefs and Trusting Intention. A system developer who feels good about the roles and setting in which they work is likely to have Trusting Beliefs about the people in that setting.

Our definitions represent the impersonal focus of institution-based trust as a belief held by an individual about impersonal things (underlying structures and situations). While some sociologists may cringe at such an individual cognitive focus, similar actions have been taken by sociologists (e.g., Barber, 1983) in order to clarify the conceptual meaning of a construct for use in explaining a social phenomenon. Situating institution-based trust as a mental concept also makes it consistent with the mental constructs Trusting Beliefs and Trusting Intention.

Trusting Beliefs means one believes (and feels confident in believing) that the other person has one or more traits desirable to one in a situation in which negative consequences are possible. Inference or attribution to the other party's traits is often included in trust definitions (Rempel, et al., 1985; Yamagishi & Yamagishi, 1994). Confidence in one's belief reflects the affective side of trusting beliefs. Confidence is often included in research and dictionary trust definitions (e.g., Cook & Wall, 1980; Giffin, 1967; Gove, 1981; Lindskold, 1978; Scanzoni, 1979). We include negative consequences in order to reflect the risk inherent in trust situations.

We distinguish four main trusting belief subconstructs, while recognizing that others exist. *Trusting Belief-Competence* means one believes the other person has the ability or power to do for one what one needs done. *Trusting Belief-Benevolence* means one believes the other person cares about one and is motivated to act in one's interest. A benevolent person does not act opportunistically. *Trusting Belief-Integrity* means one believes the other person makes good faith agreements, tells the truth, and fulfills promises (Bromiley & Cummings, 1995). *Trusting Belief-Predictability* means one believes the other person's actions (good or bad) are consistent enough that one can forecast them in a given situation.

Trusting Intention means one is willing to depend on, or intends to depend on, the other person in a given task or

situation with a feeling of relative security, even though negative consequences are possible.

Trusting intention subconstructs include Willingness to Depend and Subjective Probability of Depending. *Willingness to Depend* means one is volitionally prepared to make oneself vulnerable to the other person in a situation by relying on them (e.g., Dohing, 1993; Mayer et al., 1995). *Subjective Probability of Depending* means the extent to which one forecasts or predicts that one will depend on the other person (Currall & Judge, 1995).

Trusting Intention definitions embody five elements synthesized from the trust literature. 1. The possibility of negative consequences (Gambetta, 1988; Zand, 1972) or risk (Giffin, 1967; Riker, 1971; Shapiro, 1987) is what makes trust important but problematic. 2. A readiness to depend or rely on another is central to trusting intention (Dohing, 1993; Giffin, 1967; Lewis & Weigert, 1985b; Ring & Van de Ven, 1994). 3. A feeling of security means one feels safe, assured, and comfortable (not anxious or fearful) about the prospect of depending on another (Lewis & Weigert, 1985b; Rempel et al., 1985). Feelings of security reflect the affective side of trusting intention. 4. Trusting intention is situation-specific (Gabarro, 1978; Sitkin & Roth, 1993). 5. Trusting intention involves willingness that is not based on having control or power over the other party (Riker, 1971; Gambetta, 1988; Ring & Van de Ven, 1994). Note that Trusting Intention relates well to the system development power literature because we define it in terms of dependence and control.

Additional theoretical justification for model linkages among trust constructs is found in McKnight, et al. (1998). Empirical evidence for these linkages is discussed in other papers under review (e.g., Galvin, McKnight & Ahuja, 2000; McKnight & Chervany, 2000; McKnight, Sitkin & Chervany, 2000).

Reasons the Model May Be Helpful

1. All the subconstructs are measurable, facilitating new research.
2. The constructs relate to each other in new ways that open additional research possibilities.
3. The constructs are well-defined and parsimonious enough to be easily understood and distinguished.
4. Based on an extensive literature review, these constructs cover the most oft-used types of trust.
5. The constructs cover the key referents of trust in the literature.
6. The constructs represent conceptualizations from several disciplines. Though they do not correspond exactly to each discipline's trust concepts, they do capture significant conceptual meaning from each.

This typology compares favorably with other typologies in terms of coverage. Gabarro (1978), Rempel, Holmes and Zanna (1985) and Mishra (1996) only addressed trusting beliefs. Bromiley and Cummings (1995) had three types of beliefs and intention. McAllister (1995) addressed cognitive

and affective trust, which would fall into our Trusting Beliefs category, because analysis of their items shows that they primarily cover benevolence (affective) and competence (cognitive) beliefs. Mayer, Davis and Schoorman (1995) have several constructs, but their model only has three of the four trusting beliefs and no institution-based trust constructs.

Extensions of the Model Constructs

While Trusting Belief and Trusting Intention are defined here to refer to trust in another *person*, they could be modified to refer to a trusted *thing*, as dictated by the situation. For example, political science researchers have long examined public trust in government as a variable of interest. The public may (or may not) believe the government is benevolent, honest or competent, just as one person may think of another person having these traits. Some referents may only have certain of the traits. For example, one may believe the economy to be predictable; but it is hard to picture the economy as having integrity and competence. Nonetheless, our constructs have some applicability to “thing-trusting.” This means that these constructs may comfortably migrate from one domain of study to another.

Although these definitions are geared to the personal level of analysis, they are scalable to higher levels of analysis. Slightly modified versions of these definitions could be used when describing dyadic (mutual) trust between two people (e.g., Nelson & Coopridge, 1996), trust between two groups (Bromiley & Cummings, 1995), or trust between two corporations. For example, one corporation could be said to be “willing to depend” on another corporation when it decides to enter a joint venture with it.

Model Limitations and Caveats

The model does not place trust within its non-trust nomological network, which would aid understanding of how it works. Much other research does this, however, especially regarding the effects of trust on knowledge sharing, power (e.g., Fox, 1974), and cooperation (e.g., Good, 1988).

Another limitation relates to Whetten’s (1989) recommendation that Who and Where conditions should be placed around models. Whereas we have assumed that the model applies to any kind of relationship between two people (Who) in any situation (Where), this may not be the case. Empirical research is needed to better define the boundary conditions of the model.

Outside the scope of this paper, we have found construct validity empirically among the constructs in the Figure 1 model. In a given study, however, two subconstructs of the same construct may or may not be empirically distinguishable, as this will depend on the situation involved, the sample selected, and the items used.

Conclusion

Lewis & Weigert (1985a) called trust a highly complex and multi-dimensional phenomenon. Our classification system (Table 2) clarifies this complexity by specifying the nature of

existing trust meanings, thereby facilitating meta-analyses of trust research. Our typology of trust constructs helps address conceptual confusion by representing trust as a coherent set of four constructs and ten subconstructs. One benefit of this depiction of trust is that it has heuristic value (Kaplan, 1964) by generating research possibilities. We believe the model will help researchers examine IS/customer relationships in new ways, since the model includes personal, institutional, and interpersonal concepts. These trust concepts may help explain past power-related IS findings in the IS/user relationship. Another benefit is that the model presents a vocabulary of specifically defined trust types that scholars and practitioners can use to converse on this important topic. Finally, it also enables the use of more specific, and thus more helpful, trust prescriptions.

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